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## Making the Desert Blossom: Public Works in Washington County, Utah

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Making the Desert Blossom: Public Works

In Washington County, Utah

Michael Lyle Shamo

A thesis submitted to the faculty of  
Brigham Young University  
in partial fulfillment of the requirements for the degree of

Master of Arts

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## ABSTRACT

### Making the Desert Blossom: Public Works

in Washington County, Utah

Michael Lyle Shamo

Department of History

Master of Arts

The following thesis is a study of how communities of Washington County, Utah developed within one of the most inhospitable deserts of the American West. A trend of reliance on public works programs during economic depressions, not only put people to work, but also provided an influx of outside aid to develop an infrastructure for future economic stability and growth. Each of these public works was carefully planned by leaders who not only saw the immediate impact these projects would have, but also future benefits they would confer. These communities also became dependent on acquiring outside investment capital from the Mormon Church, private companies and government agencies. This dependency required residents to cooperate not only with each other, but with these outside interests who now had a stake in the county's development.

The construction of the Mormon Tabernacle and Temple in St. George during the 1870s made that community an important religious and cultural hub for the entire region. Large-scale irrigation and reclamation projects in the 1890s opened up new areas for agriculture and settlement. And in the 1920s and 1930s the development of Zion National Park and the construction of roads provided the infrastructure for one of the county's most important industries, tourism.

Long after these projects' completion they still provided economic and cultural value to the communities they served. Some of these projects provided the infrastructural foundation that allowed Washington County communities to have greater security and control over their economic future. Over time the communities of southern Utah created dramatic reenactments and erected monuments of these very projects to celebrate and preserve the story of their construction. During the first decade of the twenty-first century Washington County has become one of the fastest growing areas in the country, and as a result public works programs continue to be important to support this growth.

Keywords: American West, Colonialism, Public Works, Dependency, Economic Development, Great Depression, Mormon History, Utah History, Irrigation, Reclamation, Roads, National Parks, Tourism, Washington County Utah, St. George Utah, Hurricane Utah, Enterprise Utah, Springdale Utah, Zion National Park, St. George Tabernacle, Temples, St. George Temple, Enterprise Reservoir, Enterprise Dam, Zion-Mt. Carmel Highway, Zion Tunnel

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Shamo, communications professor at Dixie State College, whose interest in this work has made a significant contribution.

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## CHAPTER I

### INTRODUCTION

Historians have been fascinated by questions regarding how the American West was built. They marvel how communities located in some of the most barren reaches of the continent could develop some of the largest and fastest growing cities in the United States. Some areas have been blessed with rich resources which attracted many wishing to profit. But other areas have not been so fortunate in having an abundance of water, arable land, or other natural resources. Despite these limitations, some of these areas have been able to develop a stable set of communities.

One such area in the West can be found in Washington County in the southwest corner of Utah, geographically on the border between the Colorado Plateau and the Mohave Desert. The first Mormon settlers, or members of the Church of Jesus Christ of Latter-day Saints, came midway through the nineteenth century and found the area nearly inhospitable. During the first decade of the twenty-first century, only 150 years later, the county had one of the fastest growth rates in the United States.<sup>1</sup> Turning the desert into stable communities required a tremendous amount of outside capital, careful planning from visionary leaders and cooperation from the local population as well as interested outside parties.

The first people to inhabit this harsh environment exhibited these same qualities of cooperation, leadership and a pooling of resources. Prior to Mormon settlement, Washington County was inhabited by scattered groups of Paiutes. Because of limited resources Paiutes lived together in small camps generally consisting of ten to fifty individuals. Paiute culture required

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<sup>1</sup> Douglas D. Alder, "Utah's Recent Growth: The St. George/Washington County Example," *Utah in the Twentieth Century*, ed. Brian Q. Cannon and Jessie L. Embry (Logan: Utah State University Press, 2009), 388.

that their people cooperate for survival. Though Paiutes recognized a head man for each camp, they would often seek out any individual for leadership when a task required that person's unique skills. Within these groups they worked together to gather food for the entire camp. Along the area's most prominent rivers, the Virgin and Santa Clara, Paiutes irrigated small gardens from ditches that diverted water to their fields of domesticated maize, squash, or other native, edible plants. Paiutes would also reach out to other camps in the area. During times of drought, Paiutes would ask permission from another camp that was not affected for assistance or use of their territory. Paiutes would also pool their force from several camps to organize hunting parties or harvest piñon nuts, an important staple of their diet. This cooperation, use of leadership and pooling of resources were vital to Paiute survival.<sup>2</sup>

Mormon settlers who arrived in the region during the 1850s brought with them a strong religious tenet requiring the cooperation of all for the purpose of building up of the Kingdom of God. For Mormons, meeting temporal needs was connected to spiritual salvation; therefore, they worked together to build communities. They also believed in the literal interpretation of the biblical verse, found in Isaiah 35:1:

The wilderness and the solitary place shall be glad for them; and the desert shall rejoice, and blossom as the rose.<sup>3</sup>

The history of Washington County proved that it was the storms which caused the desert to bloom. The population of these remote desert regions felt strongly the adverse effects of national depressions. In the face of a harsh climate, economic turmoil strengthened these undaunted settlers' resolve. By turning to public works programs that provided employment, they

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<sup>2</sup> Martha C. Knack, *Boundaries Between: The Southern Paiutes, 1775-1995* (Lincoln: University of Nebraska Press, 2001), 10-29.

<sup>3</sup> Isaiah 35:1 (KJV).



weathered the storms and built an infrastructure for future stability and growth. Though Mormon pioneers believed in building a kingdom that was self-sufficient, the desert landscape and economic downturns forced them to seek outside sources of aid. Like many western communities, the aid Washington County received made them dependent on outside investors for their development. This outreach required residents to cooperate with not only each other, but also with these outside interests who now had a stake in the county's development. Leadership from both inside and out of Washington County provided the vision and careful planning it took to ensure these public works provided a benefit to the communities they served in the immediate future and for several generations that followed. Many of these projects still provide benefits in addition to providing a unique cultural value to their communities.

The following study takes a closer look at these public works programs during economic depressions. The time periods discussed correspond with three national depressions which occurred during the 1870s, 1890s, and the 1920s and 1930s.<sup>4</sup> Each chapter explains the conditions of the area both leading up to and during each economic downturn. As with many desert communities, environmental factors already had an adverse effect on the people. These problems worsened with the combined effects of the economic struggles of depression. These environmental and economic challenges provided the motivation for these public works. Each of these public works was carefully planned by leaders who not only saw the immediate impact these projects would have, but also future benefits they would confer. How capital and labor were acquired and mobilized is among the most important questions answered by these chapters. Because the county lacked the ability to acquire the necessary capital, residents became

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<sup>4</sup> Following World War I, many areas in the West, including Washington County, suffered from a depression and did not fully recover until the end of the Great Depression. See Gerald Nash, *The Federal Landscape: An Economic History of the Twentieth-Century West* (Tucson: University of Arizona Press, 1999), 18-19; Richard D. Poll, et al., *Utah's History* (Logan: Utah State University Press, 1989), 463-471.

dependent on outside entities to finance these expensive projects. Initially, leaders from the Mormon Church were able to organize the capital needed, but in later years the county came to rely on government and private investors for financial assistance. Labor was usually local which provided employment for those with few opportunities, but in some degree it was often imported, illustrating a greater amount of dependence. These public works also created ancillary industries that provided the support for the main project, thus establishing even greater economic benefits beyond the original projects. The eventual results of these projects left Washington County in a more stable economic position than before the economic downturns. The stability these projects created made these communities more capable of withstanding the constant environmental and economic barriers and created new methods for future growth. Likewise, these projects were able to sustain the existing population and facilitate further expansion.

Chapter 2 details the first significant public works in the county, the Mormon Tabernacle and Temple in St. George. The city of St. George, originally settled in 1861, was intended to be Utah's capital for growing cotton and other plants of the American Southeast. Mormon leader Brigham Young intended the entire Utah Territory to be self-reliant, and growing cotton would make the Mormon Kingdom no longer reliant on importing it from the Confederate States during the Civil War. Young intended St. George to be the religious, cultural and social center for all of southern Utah, just as Salt Lake had been for northern Utah. As the city grew, Young urged his followers to build a meeting house, or Tabernacle, that would house their religious meetings and other public events. Work on the Tabernacle progressed slowly until a severe famine and the end of the Civil War reduced cotton production forcing leaders to consider other methods, besides agriculture, to build the city of St. George. Young soon mobilized more labor and capital to be sent to St. George to hasten the Tabernacle's completion.

Just as the finishing touches were placed on the Tabernacle, Young also ordered the construction of a Temple in St. George. The Temple is considered the most sacred of all religious buildings for Latter-day Saints, where sacred ordinances take place, such as marriage. St. George became the first temple completed in Utah, and since the Salt Lake Temple was not to be finished until 1893, the city became an important destination for many Mormons. Over the six years of its construction, the Temple became the center for all economic activity for the city. Roads were established, some over 70 miles long, so teamsters could haul building materials from the quarries and lumber mills to the construction site. Since Utah mostly lived in a cashless society, workers received wages in the form of foodstuffs and other necessities provided from communities throughout Utah. Businesses were also established in St. George to provide services to the workforce at the Temple. This influx of outside capital and labor to build the St. George Tabernacle and Temple buoyed the entire city. The completion of these edifices also had their intended effect of making St. George the central hub of all southern Utah communities.

As was the case for most western communities, the two most important resources for any settlement were land and water. Chapter 3 discusses how the quest for these two vital resources led residents to build large irrigation and reclamation projects during the height of the 1890s depression. These projects also coincided with a new push for widespread irrigation and settlement in the West. The Hurricane Canal and Enterprise Dam accomplished this goal as new towns were established from the water these projects provided. Both of these projects were started locally, patterned after earlier cooperative irrigation companies established by the Mormon Church. Progress on these projects lagged due to the lack of capital and to the fact that labor could only be provided by the stockholders during the winter, since these poor farmers needed to raise their crops during the warmer months. Despite their best efforts to build these

massive irrigation projects from local investment and labor, local leaders eventually needed to seek outside capital. Not wanting to cede control over the project to speculators, these companies sought investment from leaders of the Mormon Church. During this time, the Church had divested itself of many private ventures and public works due to the depression and years of government seizures resulting from anti-polygamy legislation. Though no longer directly controlling these projects, Church leaders did provide some investment which stimulated the projects' completion. The water from these irrigation projects resulted in the establishment of both Hurricane and Enterprise, and provided the lifeblood for these two cities for nearly a century.

While Washington County had always been dependent on outside forces for their survival, their access to outside markets was limited until roads were constructed. The railroad bypassed the entire county, opting instead to pass through the more profitable mining communities of eastern Nevada. Chapter 4 discusses the importance of road construction to the county, as well as the establishment of the tourism industry resulting from the construction of these roads. The development of Zion Canyon, first as a national monument in 1909 and later as a national park in 1920, brought national attention to the secluded corner of Utah for vital federal projects. The cooperation of local promoters, private investors, and the National Park Service pushed for a road system to connect Zion National Park with other scenic treasures of the American Southwest. These improved roads brought the county's communities closer to major cities such as Los Angeles and Salt Lake City.

One of the most significant roads built during the early years of the Great Depression was the twenty-five mile long Zion-Mt. Carmel Highway. This road was part of the Park Service's park-to-park road initiative which promoted construction of a network of roads connecting all

national parks in the West. The road provided a significant shortcut from the entrance of Zion National Park at the small town of Springdale, to Highway 89 that led to Bryce Canyon to the north, and the Grand Canyon to the south. The road's most impressive engineering feat was lifting the road 2,000 feet from the canyon floor to the east rim, following up six switchbacks and excavating through a 1.1 mile tunnel inside the sheer sandstone cliff. One of the more interested parties in the road's construction was the Union Pacific Railroad and its subsidiary Utah Parks Company. Because the company owned a series of bus tours which brought tourists to their lodges in these scenic playgrounds, they were willing to donate the land they held at the rim of Bryce Canyon to the National Park Service in return for the assurance that the road would be built. Springdale residents noticed that once the road was built, businesses began flowing into town.<sup>5</sup> The capital provided through private investment, primarily from the Union Pacific, and government funding pumped millions of dollars into the local economy providing hundreds of jobs and transforming the once dying towns along the upper Virgin River Basin into tourist meccas.

The final chapter examines the overall value and cultural significance of these public works programs for the county, as well as the area's continued reliance on other public works. Some of these projects continue to provide tremendous value to the communities requiring additional funding necessary for their renovation and improvement. Over time the communities of southern Utah created dramatic reenactments and erected monuments of these very projects to celebrate and preserve the story of their construction. The St. George Tabernacle and Temple likewise underwent several renovations, including an extensive project during the Great Depression. These buildings continue to serve as the religious center for the regions' Mormon

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<sup>5</sup> J. L. Crawford, interview by author, 13 August 2009, Hurricane, UT.

population, as well as maintain their presence as the most prominent buildings on the St. George skyline. Improvements were also necessary to protect and enlarge the Hurricane Canal and Enterprise Dam for continued use. Because water is such a vital resource to the growing population of Washington County, still other reclamation projects have been planned and built to keep up with the growth. The population of Washington County has more than doubled over the last decade of the twentieth century and first decade of the twenty-first century. Therefore these reclamation projects will continue to play a vital role in determining the county's future growth. Tourism also remains one of the area's most important industries, keeping the county's economy dependent on outside visitors for support. This pattern of public works through economic turmoil continued with the recession of 2008 as St. George is pursuing the city's most expensive public works for their future security, a new 1,250 acre airport. The pattern of pursuing public works during economic depressions ultimately brought life to the desolate desert.

The historiography of western development has often been a story of the land and how the environment of that land affected the people. This theory was first put forth by Frederick Jackson Turner in his 1893 work, "The Significance of the Frontier in American History."<sup>6</sup> Turner contended that the process of moving on to the unsettled frontiers transformed the once-European colonists into Americans. According to Turner, the environment is what determined the characteristics of those who dared to live on the frontiers: "In short, at the frontier the environment is at first too strong for the man. He must accept the conditions which it furnishes, or perish."<sup>7</sup> Out of necessity westerners needed to use new tools, wear new clothes, and leave

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<sup>6</sup>Frederick Jackson Turner, "The Significance of the Frontier in American History," *Frontier and Section: Selected Essays of Frederick Jackson Turner* (Englewood Cliffs, NJ: Prentice-Hall, Inc., 1961), 37-62.

<sup>7</sup>Turner, "Significance of the Frontier," 39.

their old character traits behind and develop new ones. Turner believed that the process of western expansion onto the isolated frontier forged the traits that define westerners: independence, individualism, innovation, a tireless work ethic and a constant need for mobility. Turner believed that so long as there were frontiers with untapped resources, American progress would continue. This process continued up until 1890, when the U. S. Census Bureau declared there was no longer an open frontier. These views regarding frontier opportunity were not held by Turner alone, but by many westerners who believed they could build up the West with their own hands.

Walter Prescott Webb expanded on Turner's views of how environment shaped western development. Webb's 1931 work *The Great Plains* focuses on the area east of the Sierra Nevadas and west of the Mississippi River.<sup>8</sup> For Webb this area had some important commonalities, each including a semi-arid or sub-humid climate, treeless grasslands, and large tracts of open space. These characteristics provided the laboratory for Webb to test how this harsh environment affected the people who lived on it and tried to tame it. According to Webb:

Nature's very stubbornness has driven man to the innovations which he has made; but above the level of his efforts and beyond his achievements stand the fragments and survivals of the ancient order. The new and the old, innovation and survival, dwell there side by side, the obverse and the converse of the struggle between man and nature.<sup>9</sup>

Webb believed the West's environment led to the settlers' "innovations" such as the six-shooter to fight Indians on horseback, dry farming and windmills to grow crops, and water laws to provide order to the broad landscape.

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<sup>8</sup> Walter Prescott Webb, *The Great Plains* (1931; repr., Lincoln: University of Nebraska Press, 1981).

<sup>9</sup> Webb, *The Great Plains*, 508.

Clearly an argument can be made that the environment determined how Utahns were able to survive and build communities. The uses of public works, such as irrigation systems, were necessary because of the arid surroundings. William Smythe, who wrote of the Mormon pioneers and their irrigation systems, said very directly, “Utah is the product of its environment.”<sup>10</sup>

Turner and Webb’s interpretation may just be a reflection of reality, though it was not environmental determinism that built Utah and the West; rather it was Utahns and westerners who were determined to live in the arid environment. Ray Allen Billington did not believe as Turner did that it was the frontier that determined people’s character traits. The environment only enhanced already existing traits.<sup>11</sup> Webb meanwhile would have been better to use the word “adaptation” than “innovation,” since many of these technological concepts were brought to the West rather than invented there. Using Smythe’s example of irrigation, Mormons were not the first to use irrigation in the West, nor were they the first in Washington County to do so. Before arriving in Utah, Mormons studied irrigation techniques used throughout the world, and even observed native populations engaging in irrigation when they arrived.<sup>12</sup>

Turner’s hypothesis can arguably be a product of the current events of his time. The year Turner presented his thesis in 1893 America was entering into an economic depression that had devastating impacts on the West. As American economic progress appeared to stall, Turner presented the idea that westward expansion is tied to progress. With no visible frontier line,

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<sup>10</sup> William E. Smythe, *The Conquest of Arid America*, rev. ed. (New York: Macmillan, 1905), 52.

<sup>11</sup> Ray Allen Billington, *America’s Frontier Heritage* (1966; repr., Albuquerque: University of New Mexico Press, 1974), 219.

<sup>12</sup> Thomas G. Alexander, *Utah, The Right Place*, revised and updated edition (Salt Lake City: Gibbs Smith, 2007), 98; William B. Smart and Donna T. Smart, eds., *Over the Rim: The Parley P. Pratt Exploring Expedition to Southern Utah, 1849-1850* (Logan: Utah State University Press, 1999), 92-93; Juanita Brooks, ed., *Journal of the Southern Indian Mission: Diary of Thomas D. Brown* (Logan: Utah State University Press, 1972), 49.



Turner worried about the future of American progress. Time has proved that this notion is fundamentally flawed since America and the West continues to grow and prosper economically long after the Census Bureau declared the frontier closed. The economy of the West needed to adapt and diversify itself to create new growth. Public works in Washington County helped stimulate those changes. Irrigation and reclamation projects like the Hurricane Canal and Enterprise Dam did aid the county's struggling agriculture. The agricultural industry, however, proved insufficient for long-term stability and growth; therefore, new public works opened up new opportunities. The roads built during the 1920s and 1930s laid the foundation for the lucrative tourism industry. Even with their flaws in stating environment was the preeminent factor in shaping the West, these early historians were correct in their assertion that environment did play an important role in the West's development.

An understanding of the economics involved in western development is where Turner's hypothesis of individual ingenuity and work ethic unravels even further. Economy, much like environment, was also a factor in the development of the West and Washington County. The reality was that the West's development required involvement from eastern capital as much, or more than the sweat of the westerner's brow. Historian Bernard DeVoto, a Utah native, took a cynical view of the East's involvement in western development with his influential work, "The West: A Plundered Province."<sup>13</sup> Criticizing Turner's hypothesis, he wrote:

And, therefore, the final strangeness of the West: it was the place where the frontier culture broke down. The pioneer's tradition of brawn and courage, initiative, individualism, and self-help was unavailing here. He could not conquer this land until history caught up with him. He had, that is, to ally himself with the force which our sentimental critics are sure he wanted to escape from: The Industrial Revolution.<sup>14</sup>

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<sup>13</sup> Bernard DeVoto, "The West: A Plundered Province, *Harpers Magazine* (August 1934): 355-364.

<sup>14</sup> DeVoto, "A Plundered Province," 357.

Because the West lacked industry, DeVoto argued that the West's wealth in resources was exploited only to enrich eastern industries. DeVoto did acknowledge that there were improvements made to the West, but that these improvements only served to make the West "a debtor class all through history."<sup>15</sup> In DeVoto's view, railroads were built not to improve transportation in the West, but to haul precious ore and other materials back to the East. Dams that provided water to the thirsty deserts only enriched the water companies who owned and distributed the water rights and the power companies that generated electricity at the dams.

Patricia Limerick's *The Legacy of Conquest: The Unbroken Past of the American West* expands on DeVoto's plundered province hypothesis by challenging the Turnerian assumption of the West's independence and individualism.<sup>16</sup> As Limerick states, "the move to a western territory did not heighten one's independence, but lessened it."<sup>17</sup> She continues:

It is common to associate the American West with the future, one of independence and self-reliance. The future that was actually projected in the Western past is quite a different matter. It was in the phenomenon of dependence—on the federal government, on the changeability of nature, on outside investment—that the West pulled ahead.<sup>18</sup>

The West's survival and foundation for its future was intrinsically connected with outside resources, especially during times of economic hardship. Limerick noted that the federal

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<sup>15</sup> DeVoto, "A Plundered Province," 358.

<sup>16</sup> Patricia Nelson Limerick, *The Legacy of Conquest: The Unbroken Past of the American West* (New York: W. W. Norton, 1987).

<sup>17</sup> Limerick, *Legacy of Conquest*, 80.

<sup>18</sup> Limerick, *Legacy of Conquest*, 88-89.

government's role and the western economy grew together, particularly during the first half of the twentieth century.<sup>19</sup>

But, by breaking down Turner's and Webb's myths about the West's independence, DeVoto and Limerick created new myths. While it is true the West was, and in many cases still is, dependent on capital coming from eastern capitalists or the government, it is an overgeneralization to suggest that the West was developed simply for the exploitation and profit of the East. Likewise, Limerick's assumption that western development only increased their dependency on outside funding is subject to criticism. The West, according to DeVoto and Limerick, was incapable of having any say in its own future since they ceded much of their control to outside interests.

Both DeVoto and Limerick also imply an animosity from the westerner toward those who provided the assistance for their economic development. Certainly several examples exist of westerners being wary of losing political and economic control over their region through outside investment and government regulation. This tension between independence and dependency, however, was not universal to every situation. While residents in Washington County often were careful about maintaining control over their public works projects, locals were often openly promoting outside assistance illustrating a consciousness of their dependency. They also cooperated with these outside agencies and as a result mutual interests between locals and outside investors were often achieved.

Gerald D. Nash and Richard Lowitt argued that investment by the federal government during the twentieth century established the infrastructure that encouraged growth and brought more free enterprise to the region. Nash noted in his work, *The Federal Landscape: An*

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<sup>19</sup> Limerick, *Legacy of Conquest*, 89.

*Economic History of the Twentieth Century West*, that through government involvement, “in the course of a century, between 1900 and 2000, the federal government succeeded in transforming the colonial economy of the West into a pacesetting technologically advanced economy.”<sup>20</sup> The Great Depression’s effects on the West were devastating; therefore, the New Deal not only provided relief but also remade the region’s economy. Lowitt’s study *The New Deal and the West* examines how several government-funded public works projects transformed the West from an economy reliant on natural resource extraction to a more stable industrialized economy.<sup>21</sup> One prime example is Boulder Dam, which provided water and electricity to Los Angeles’ growing population and turned the Imperial Valley in California into one of world’s most productive agricultural regions.<sup>22</sup> Though these projects were planned at a federal level, Lowitt notes, “local groups and organizations involved in these activities became integrated into an expanding network of similar and related groups and organizations that further projected the West into the orbit of a modernizing mass society.”<sup>23</sup>

William G. Robbins explored the historiography of western historians who debated the issue of dependency since DeVoto first released his “plundered province” thesis.<sup>24</sup> Robbins saw an acknowledgment by many historians, even those like DeVoto who had previously believed that the West was a colony of eastern capital, that the New Deal and government subsidies in defense industries during World War II and the Cold War developed a more integrated industrial

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<sup>20</sup> Nash, *Federal Landscape*, 145.

<sup>21</sup>Richard Lowitt, *The New Deal and the West*, paperback edition(Norman: University of Oklahoma Press, 1993).

<sup>22</sup>Lowitt, *New Deal*, 82.

<sup>23</sup>Lowitt, *New Deal*, 220.

<sup>24</sup> William G. Robbins, “The ‘Plundered Province’ Thesis and the Recent Historiography of the American West,” *Pacific Historical Review* 55, no. 4 (November 1986): 577-597.

economy. New capital centers were emerging as the West became more urban in places like Los Angeles, San Francisco, Phoenix and Seattle. But because the West was still dependent on outside investment and government subsidies, it was both an empire and a colony. Robbins did note that in some historians' opinion this balance between empire and colony made some areas still vulnerable to succumbing to these outside interests if they continually relied on resource development and did not develop into an integrated, diversified economy.

These early histories in western history have important implications for Washington County's history of development. The environmental and economic conditions provided the motivation for residents to build public works that would transform the region's economy. To fund these expensive projects, as Limerick, Nash and Lowitt would all agree, the county became dependent on outside sources of capital. Each of these investors, whether it was the Mormon Church, private companies, or government agencies, had their own interests. But unlike DeVoto's initial cynicism, local cooperation with these entities provided a balance so that they could have an equal benefit with these outside interests. At times, local leaders were careful to keep a considerable amount of control over the projects, and when possible sought investment from sources that allowed them that authority.

The historiography of Washington County itself is limited, but includes two sweeping studies. The first is Andrew Karl Larson's "*I Was Called to Dixie*": *The Virgin River Basin—Unique Experiences in Mormon Pioneering*, which deals mostly with the building of Mormon communities along the Virgin River prior to 1900.<sup>25</sup> Larson does have sections regarding the cultural and social life of these Mormons settlers, but the bulk of his study deals with economic developments. Larson's book contains great detail and a wealth of sources in his treatment of

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<sup>25</sup> Andrew Karl Larson, *I Was Called to Dixie: The Virgin River Basin – Unique Experiences in Mormon Pioneering* (Salt Lake City: Deseret News Press, 1961).

the public works programs that built the county. He implicitly accepts the Turnerian model that these were self-sustaining communities built from their own ingenuity. Larson does note the region's dependence on Church headquarters in Salt Lake City, but in so doing continues to emphasize Mormon economic independence. By taking this approach, Larson does not link Washington County to the broader narrative of the American West and how outside factors contributed the county's history.

The more recent *A History of Washington County: From Isolation to Destination* by Douglas D. Alder and Karl Brooks provides greater context by showing how the county evolved into one of the fastest growing regions in the country.<sup>26</sup> Alder, like Larson before him, taught history at Dixie College in St. George, where he also served as college president. Brooks, a former mayor of St. George, likely developed his appreciation of the area's history from his mother, Juanita Brooks, the county's best known historian. Their volume was part of a project by the Utah State Historical Archives to write a history for each of Utah's counties during the state's centennial in 1996. Their work has since been updated and republished by Zion National Park's Zion Natural History Association in 2007. The authors argue that prior to 1930 Washington County remained isolated from the rest of Utah and the country. That isolation ended in 1930 when the county's portion of the Arrowhead Trail was completed, connecting it to Los Angeles and Salt Lake City. The road, along with development of the county's tourism industry, brought more national attention to the region and an influx of federal investment.<sup>27</sup>

Though the authors make a convincing case that Washington County was restricted in its access to the outside world, Washington County was never completely isolated, even prior to

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<sup>26</sup> Douglas D. Alder and Karl F. Brooks, *A History of Washington County: From Isolation to Destination*, 2<sup>nd</sup> ed. (Springdale, UT: Zion Natural History Association, 2007).

<sup>27</sup> Alder and Brooks, *History of Washington County*, xvii-xviii.

1930. National events and economic trends did have an impact on local markets. Though Alder and Brooks contend, for example, that residents knew of the Civil War, “but were relatively untouched by it,” the end of the Civil War caused a drop in price of the county’s earliest important crop, cotton. The drop in price led to a decline in cotton production and became a motivating factor for the public works program that built the St. George Temple and Tabernacle.<sup>28</sup>

In addition to these sweeping studies of southern Utah, two other works explore the sociology of the region. Nels Anderson’s *Desert Saints: The Mormon Frontier in Utah* and Larry M. Logue’s *A Sermon in the Desert: Belief and Behavior in Early St. George, Utah* both study the early residents of southern Utah and examine the difficulties they faced to establish St. George and other Washington County communities.<sup>29</sup> Anderson first became interested in the religious and cooperative culture of the county when he lived for several years in Enterprise, arriving just as the dam was completed. Anderson takes a close look at the history of the Mormon Church and how it shaped the social structure of the Mormon settlements in southern Utah. Mormons religious beliefs also influenced their cooperative economic policies. Logue, meanwhile, explores the theology and family life of early Mormon settlers of Washington County and how those beliefs were shaped. Logue studies how these social and family relationships, particularly polygamy, differed with other Americans and how St. George Mormons were able to maintain those relationships. Both of these works argue that the deep

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<sup>28</sup> Alder and Brooks, *History of Washington County*, xviii; Leonard Arrington, *Great Basin Kingdom: An Economic History of the Latter-day Saints, 1830-1900* (1958; repr., Urbana: University of Illinois Press, 2005), 220-221.

<sup>29</sup>Nels Anderson, *Desert Saints: The Mormon Frontier in Utah* (Chicago: University of Chicago Press, 1942); Larry M. Logue, *A Sermon in the Desert: Belief and Behavior in Early St. George, Utah* (Urbana: University of Illinois Press, 1988).

religious convictions of these early Mormon settlers shaped the sociology of Washington County's communities during the nineteenth century.

In addition to general studies of Washington County, several specialized studies relate to topics addressed within the chapters of this thesis.

For Chapter 2, a couple of studies have been done on the history of the St. George Temple. Kirk M. Curtis's master's thesis, "History of the St. George Temple," is a documentary style narrative of the Temple's construction and renovations up to 1964.<sup>30</sup> Curtis's work provides several transcription excerpts from newspaper articles, journals and correspondence of Mormon leaders and Temple builders. Curtis does not provide a lot of interpretation or context since he devotes most of his time developing the narrative of the Temple's construction through these transcribed quotes. In addition, St. George native Janice Force DeMille also wrote a history to commemorate the St. George Temple's centennial in 1977, entitled *The St. George Temple: First 100 Years*.<sup>31</sup> DeMille borrows much of the material from Curtis as well as his methodology in expanding the story up to 1977. Between the time Curtis finished his work, and DeMille wrote hers, the St. George temple had undergone another extensive renovation to prepare it for its centennial. Her work lacks the polish of other scholarly histories but does contain some useful information and transcripts of several contemporary sources, particularly newspaper articles, which enhance the overall history of the Temple's construction and use.

Leonard J. Arrington's *Great Basin Kingdom: An Economic History of the Latter-day Saints, 1830-1900* meticulously examines Brigham Young's economic policies in early Utah.

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<sup>30</sup> Kirk M. Curtis, "History of the St. George Temple" (master's thesis, Brigham Young University, 1964).

<sup>31</sup> Janice Force DeMille, *The St. George Temple First 100 Years* (Hurricane, UT: Homestead Publishers, 1977).



According to Arrington, Young wished to create a self-sustaining economy that did not rely on outside products. He therefore established several home-grown industries and specialized “missions” to produce the necessary goods and services to sustain the Mormon Kingdom in Utah including Washington County’s “cotton mission.” Young also established a Public Works Department that organized labor which “served the dual purpose of building the Kingdom and of providing gainful employment to the newly arrived immigrants while they were becoming adjusted to the problems of the frontier.”<sup>32</sup> During the period of the Tabernacle and Temple construction, Young also created cooperatives and United Orders, which encouraged church members to recommit to Young’s economic principles through religious covenant. The United Order in St. George, for example, was responsible for organizing labor for the Temple’s construction.<sup>33</sup> Arrington’s work is valuable because it illustrates how Young’s economic and religious principles were sufficiently intertwined to motivate cooperation throughout Utah for the construction of the Tabernacle and Temple in St. George.

*Great Basin Kingdom* and Arrington’s article “Utah and the Depression of the 1890’s” also give context to the economic situation in Utah for the period discussed in Chapter 3, particularly as it relates to the Mormon Church.<sup>34</sup> Arrington highlights the challenges Young’s economic policies encountered from an influx of non-Mormons after the transcontinental railroad and enforcement of anti-polygamy laws by the federal government. These challenges and the national depression of 1893 left the Church in a weakened financial position and

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<sup>32</sup>Arrington, *Great Basin Kingdom*, 109.

<sup>33</sup> Arrington, *Great Basin Kingdom*, 334-335; for more information about the United Order in St. George see Leonard J. Arrington, Feramorz Y. Fox and Dean May, *Building the City of God: Community and Cooperation Among the Mormons* (Salt Lake City: Deseret Book, 1976), 155-175.

<sup>34</sup> Leonard J. Arrington, “Utah and the Depression of the 1890’s,” *Utah Historical Quarterly* 29, no. 1 (January 1961): 3-18.

rendered it unable to carry out Brigham Young's expansive economic policies. Though the Church was involved in several economic ventures following 1893, they were based upon a more traditional capitalistic principle of stock investment and ownership.

Chapter 3 also opens up questions about irrigation in the West. William E. Smythe, a fervent supporter of irrigation and one-time chairman of the National Irrigation Congress, promoted many of his views in his 1899 book *The Conquest of Arid America*.<sup>35</sup> Though the book does provide some history on irrigation in the West, its main purpose is to promote more extensive irrigation projects in the region. Smythe's work provides a great example of the attitudes of those who built irrigation projects around the turn of the twentieth century.

Two other works dealing with irrigation closely mirror the prevalent historiography of the West. Donald Worster's *Rivers of Empire: Water, Aridity, and the Growth of the American West* resembles the approach of Patricia Limerick.<sup>36</sup> Worster contends that the more government became involved in western irrigation, through both creating water laws and funding reclamation projects, the more power over the West's most precious resource was taken away from the people and centralized in the state. Donald J. Pisani's *To Reclaim a Divided West: Water, Law, and Public Policy, 1848-1902* takes a more balanced approach more in line with Richard Lowitt and Gerald Nash.<sup>37</sup> Pisani acknowledges the importance of the federal government in developing irrigation laws and funding projects, but shows how these were usually grassroots efforts brought to the nation's attention through local representation and interests. The development of the Hurricane Canal and Enterprise Dam more closely supports Pisani's approach since local

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<sup>35</sup> William E. Smythe, *The Conquest of Arid America*, rev. ed. (New York: Macmillan, 1905).

<sup>36</sup> Donald Worster, *Rivers of Empire: Water, Aridity, and the Growth of the American West* (New York: Oxford University Press, 1985).

<sup>37</sup> Donald J. Pisani, *To Reclaim a Divided West: Water, Law, and Public Policy, 1848-1902* (Albuquerque: University of New Mexico Press, 1992).

leadership controlled the destiny of these projects. Even when outside investment was sought, the local companies sought only the type of investments that would allow them to retain control over the water rights from these projects.

Both the Hurricane Canal and Enterprise Dam were written about in great detail by W. Paul Reeve, a Hurricane native and an associate professor at the University of Utah. Reeve first wrote about the Hurricane Canal for his master's thesis at Brigham Young University in 1994. He later condensed his work for publication entitled "*A Little Oasis in the Desert*": *Community Building in Hurricane, Utah, 1860-1930*.<sup>38</sup> Reeve uses census records and Hurricane Canal Company records to determine how those who persisted in the dwindling towns of the upper Virgin River Basin, frustrated by periods of drought and flood, organized themselves to build the canal in order to create a more reliable source of water and land. The cooperative company they created was the motivating factor for not only the building of the canal, but also provided the leadership and social structure for organizing the new city of Hurricane.

Reeve takes a similar approach in *A Century of Enterprise: The History of Enterprise, Utah, 1896-1996*.<sup>39</sup> Reeve discovers that ranchers and other settlers in northwest Washington County found water sources unreliable and little land for expansion. Orson Huntsman, a resident of Hebron, often "preached reservoir" to promote his idea for a new town supported by the Enterprise Dam, but initially found little local support for his reclamation project. Huntsman did find support among influential church and civic leaders in St. George, who were instrumental in warming local support as well. Full support did come from Hebron's residents until an earthquake in 1902 created major damage and sent the people scrambling for a new place to

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<sup>38</sup> W. Paul Reeve, "*A Little Oasis in the Desert*": *Community Building in Hurricane, Utah, 1860-1930* (Salt Lake City: Whirlwind Press, 1996).

<sup>39</sup> W. Paul Reeve, *A Century of Enterprise: The History of Enterprise, Utah, 1896-1996* (Enterprise, UT: The City of Enterprise, 1996).

settle. Reeve indicates that the reservoir was initially important in the founding of Enterprise, but as the town grew a lower reservoir and additional underground wells were necessary to provide more water for further expansion of agriculture and settlement in the region.

Chapter 4 deals with the development of a tourism infrastructure through road development and the creation of Zion National Park. Not many works exist yet on the expansion of tourism in the West, but it is a growing field of study for historians. One of the most influential works is Hal Rothman's *Devil's Bargains: Tourism in the Twentieth-Century West*.<sup>40</sup> Rothman contends that when a town decides to transform itself into a tourist destination it begins to lose its original soul. Rothman argues that over time the original residents are pushed aside as outside interests take over the town and transform the original culture into a commodity to be sold to visitors. The new town will no longer resemble the original, and the wealth will migrate outside to the town's investors, much like DeVoto contends in his plundered province hypothesis. Certainly, Rothman would find a seemingly perfect example of this devil's bargain in the transformation of Springdale, outside Zion National Park. Today Springdale resembles little of the Mormon farming community it once was, as the town is bustling with hotels, restaurants and souvenir shops. The bargain, however, may have been a necessary change for Springdale whose adaptation to the tourism economy was a key to its survival. At the time Zion became a National Park, communities along the upper Virgin River Basin, including Springdale were struggling to maintain their population as residents began flocking to more stable areas, such as Hurricane which had just finished their canal. Without tourism, Springdale may have faced the same fate as its neighbors Shunesburg and Grafton, which became ghost towns by the first decades of the twentieth century.

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<sup>40</sup> Hal Rothman, *Devil's Bargains: Tourism in the Twentieth-Century West* (Lawrence: University Press of Kansas, 1998).

Richard West Sellars' *Preserving Nature in the National Parks: A History* explores the administrative history of the National Park Service and the effects of its policies.<sup>41</sup> Sellars was a career employee for the Park Service and uses his inside knowledge of policies to craft his history. He notes that the National Park Service tried to strike a balance between preserving nature so that it would remain "unimpaired for the enjoyment of future generations" and developing the parks to promote tourism.<sup>42</sup> Sellars discovered that more often than not, Park policies gave preference to the latter of promoting tourism through development. During the first years of the park service, when Zion was established, private companies, particularly railroad companies, saw profit in controlling tourism traffic to the parks, and therefore had a lot of influence in the creation and development of national parks. Though Zion is only given a few references in Sellars' text, his book is an important resource in giving context to that park's early development. The importance of the Union Pacific and the justifications for building the Zion-Mt. Carmel Highway clearly fit into the thesis of Sellars' work.

Wayne K. Hinton, an emeritus professor from Southern Utah University in Cedar City, also about the development of Zion National Park. His article "The Significance of Cooperation in the Development of Zion National Park," illustrates how the pattern of cooperation, leadership, and outside investment was key to Zion's development.<sup>43</sup> Hinton focuses on how local, private and government interests worked together to develop tourism at Zion. Hinton also provides an analysis of how much investment these outside interests provided in Zion's development and the effect it had on the local economy. Hinton, with Elizabeth A. Green, also

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<sup>41</sup> Richard West Sellars, *Preserving Nature in the National Parks: A History*, rev. ed. (New Haven: Yale University Press, 2009).

<sup>42</sup> Sellars, *Preserving Nature*, 29.

<sup>43</sup> Wayne K. Hinton, "The Significance of Cooperation in the Development of Zion National Park," *Utah Historical Quarterly* 68, no. 4 (Fall 2000): 313-331.

wrote on the Civilian Conservation Corps and how that New Deal government agency contributed to Zion National Park during the Great Depression.<sup>44</sup>

Angus M. Woodbury's "A History of Southern Utah and Its National Parks" is a fairly good narrative of Zion National Park and the surrounding communities from a brief history of the Native Americans down to the construction of the Zion-Mt. Carmel Highway, though not much attention is given to the development of that road.<sup>45</sup>

The Zion Natural History Association published a history of the Zion-Mt. Carmel Highway by Donald G. Garate in 1989. Garate used a variety of sources furnished by the Zion National Park and other government archives, as well as interviewed several local employees of the Nevada Construction Company who worked on the road and tunnel. The published version of his book *The Zion Tunnel: From Slickrock to Switchback* does not include much of Garate's rich narrative as more page space is devoted to photographs of the road construction.<sup>46</sup> A more complete, unpublished version of Garate's history of the Zion-Mt. Carmel Highway is available in the archives of the Zion Natural History Association at Zion National Park.<sup>47</sup> For this thesis, the unpublished version of Garate's text is exclusively used instead of the more available, but highly edited published version.

By using western studies and local histories this thesis situates the development of Washington County within the broader story of western development. This community study of

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<sup>44</sup> Wayne K. Hinton and Elizabeth A. Green, *With Picks, Shovels and Hope: The CCC and Its Legacy on the Colorado Plateau* (Missoula, MT: Mountain Press, 2008), 177-184.

<sup>45</sup> Angus M. Woodbury, "A History of Southern Utah and Its National Parks" *Utah Historical Quarterly* 12, nos. 3-4 (Summer, Fall 1944): 111-211.

<sup>46</sup> Donald T. Garate, *The Zion Tunnel: From Slickrock to Switchback*, rev. ed. (Springdale, UT: Zion Natural History Association, 2001).

<sup>47</sup> Donald T. Garate, "The Zion Tunnel: From Slickrock to Switchback," (unpublished manuscript, Zion Natural History Association, Zion National Park, Springdale, Utah, 1989).

Washington County offers insights regarding how other areas of the West developed. External capital, for example, was crucial for many communities that developed around public works programs such as large reclamation projects, government defense industries during World War II and the Cold War, universities, or variety of other projects. The stories of Washington County's public works programs illustrate the cooperation that can take place between local residents and outside investors who support them. The divide between individualism and dependency is not as extensive as historians have suggested. Both local residents and outside investors pushed for their own interests, and the results often led to compromise and accommodations, rather than groups of winners and losers. Considering the validity of each argument made by past historians can lead scholars to a greater understanding of the West's development. Focusing too much on the individualism of the westerners as Turner and Webb had with their writings would ignore the dependency on outside resources. At the same time, creating a narrative focused too much on that dependency where all control rests with those providing the aid, as DeVoto and Limerick had, would ignore the contributions from local westerners toward their own destinies. While conflicts did arise at times, local residents of Washington County were often aware of their dependency and often sought outside aid, which was provided to suit the needs of those investors.

Future studies will be able compare Washington County with other western communities to determine if similar or different patterns emerged from their development. More attention could be placed within Washington County, or any another community, on how public works projects affected the general local population. A more detailed sociological study may be able to determine the degree to which these projects affected average local individuals' lives economically and socially. Also, a greater focus on the individuals may further probe the

dichotomy between individualism and dependency. Future studies could uncover whether there was organized opposition to these public works beyond what is documented in this study, and determine whether opposition had any effect in terms of changing the original plans of these projects or their beneficiaries. While this study focuses mainly on the impacts of these projects on the development of Washington County, with any major public works there is also an impact on the environment as well that future scholars could further investigate. The development of Washington County through public works provides many answers and future questions for scholars to explore regarding the American West's development.



CHAPTER II  
“A CITY, WITH SPIRES, TOWERS AND STEEPLES”:  
ST. GEORGE TABERNACLE AND TEMPLE,  
1860s AND 1870s

St. George, Utah lies at the state’s extreme southwest corner and in many ways it is as extreme as is its location. In the summertime, the weather can reach average temperatures above 100 degrees Fahrenheit; in the winter, its low temperature hovers around twenty-five degrees. Found on the edges of the Mojave Desert and Colorado Plateau, the landscape is characterized by large sandstone cliffs carved out by the area’s two small rivers, the Virgin and the Santa Clara. St. George averages less than ten inches of precipitation per year, making water a precious resource.<sup>1</sup> However, periodic flash flooding within nearby slot canyons and the fast flowing rivers can dramatically reshape the land. Black lava rock marbled within the eroded sandstone walls speaks to the region’s violent geological past. Local historian Juanita Brooks commented about the land, “It looks like the good Lord took everything left over from the creation, dumped it here, then set it on fire.”<sup>2</sup> George A. Smith, for whom the city is named, expressed similar sentiments upon visiting the region in 1857, adding, “It is rather rough, but I could not but admire its extreme beauty.”<sup>3</sup> While the harsh climate and lack of sustaining resources made settlement of this region difficult, there was a beauty within the landscape that drew people to it.

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<sup>1</sup> Desert Research Institute, Western Regional Climate Center, Saint George, UT climate information from data gathered between 1 October 1892 and 31 December 2005, <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?utstge> (accessed June 22, 2010).

<sup>2</sup> Douglas D. Alder and Karl F. Brooks, *A History of Washington County: From Isolation to Destination*, 2<sup>nd</sup> ed. (Springdale, Utah: Zion Natural History Association, 2007), 1.

<sup>3</sup> J. V. Long, “Remarks By Elder George A. Smith, Bowery, Sunday Afternoon, September 13, 1857,” *Deseret News*, 23 September 1857.

Mormons, members of the Church of Jesus Christ of Latter-day Saints, settled St. George and other nearby regions in hopes of making an independent, self-sustaining colony on the southern edge of Utah. The early history of St. George, however, provides an ideal example of how western communities ultimately became dependent on outside resources for their development. While private investors and government agencies did not have a role until later periods, the Mormon Church filled in to provide the necessary outside resources for the region's survival. One of the great values of Mormon communities has been cooperation. Mormon historian Leonard Arrington wrote:

The one quality required to successfully execute the economic program of the church, as often learned by its absence, was unity...Cooperation meant that everyman's labor was subject to call by church authority to work under supervised direction in a cause deemed essential to the prosperity of the Kingdom.<sup>4</sup>

Mormonism's charismatic leader Brigham Young had big intentions for this desert region, and as such went to great lengths to invest in its long term success. According to a report in the *Desert News* "[St. George] is intended to be the 'local headquarter;' ... a miniature Salt Lake City."<sup>5</sup>

The initial hope was to make Washington County an agricultural oasis. As Arrington notes, "The goal of colonization, of the settled village, and of resource development was complete regional economic independence."<sup>6</sup> The warm climate was believed to be ideal for growing several semi-tropical plants. However, due to the lack of arable land and the difficulty in taming the often swift-flowing Virgin and Santa Clara rivers for irrigation, attempts to make a

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<sup>4</sup> Leonard Arrington, *Great Basin Kingdom: An Economic History of the Latter-day Saints, 1830-1900* (1958; repr., Urbana: University of Illinois Press, 2005), 27.

<sup>5</sup> "Notes and Incidents of an Excursion in Washington County," *Deseret News*, 19 September 1862.

<sup>6</sup> Arrington, *Great Basin Kingdom*, 26.

sustainable agricultural economy struggled, and by the mid-1860s a famine had almost caused a complete collapse.

Ultimately, there was but one resource available to St. George residents in large abundance—stone. As one correspondent who visited St. George in 1862 noted, “The city is well supplied with building stone, the hills to the north being one single sand stone, for an area of two miles by three.”<sup>7</sup> The stone from the nearby mesas and canyons allowed leaders to design several significant projects. This aggressive public works program sustained St. George and neighboring communities for nearly a decade and a half of famine and depression. But stone alone was not enough. The ideal of self-reliance would have to be abandoned, making the region aware of its complete dependence on outside aid. For Brigham Young’s vision of a southern “headquarters” to be a reality, he had to orchestrate cooperation among several Utah settlements in order to bring in the resources to pay for these several projects.

The St. George Tabernacle and Temple were the two largest public works projects requiring an abundant amount of outside capital and labor.<sup>8</sup> These two buildings have a significant religious meaning within the Mormon religion and culture. Upon their completion, the vision of St. George as the Mormon hub of southern Utah became a reality. Today, the Tabernacle and Temple are still the most prominent landmarks within the city, giving the community a cultural identity and defining it as a religious gathering place. While on the surface the construction of two buildings does not seem significant, a settlement-sustaining economy developed around their construction.

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<sup>7</sup>“Excursion in Washington County.”

<sup>8</sup> Two other public works projects during this time period also worth noting, but did not have the same lasting impact as the Tabernacle and Temple, are the Washington Cotton Factory and the Washington County Courthouse in St. George. For more information on these projects see Andrew Karl Larson, *I Was Called to Dixie: The Virgin River Basin – Unique Experiences in Mormon Pioneering* (Salt Lake City: Deseret News Press, 1961), 193-204, 576-577; Alder and Brooks, *History of Washington County*, 61-65.

The need for outside capital to support this economy cannot be overlooked. Supplies, labor, and wages would all need to be brought in to St. George since the only materials available nearby were sandstone, limestone, and basalt. One critical resource, lumber, would have to be hauled from Pine Valley and Mount Trumbull, distances of thirty-five miles and seventy miles respectively. Eventually, lumber was hauled from as far away as Beaver, a distance of just over one hundred miles.<sup>9</sup>

Labor was another resource St. George could not provide alone. The projects required a labor force not only at the construction sites of the buildings, but also for the stone quarries and lumber mills. Roads would also have to be built and a freighting system would need to be developed to haul the stone, lumber, and other supplies to the buildings. Small businesses adjacent to the work sites also developed, providing goods and services for the workers.

In addition, the Church utilized its tithing program as a means for paying these laborers. Cash flow was scarce and, as a result, tithing was paid in kind. Laborers therefore were paid in foodstuffs or with credit to tithing offices which administered the donations. While the dependency on outside aid brought Washington County within the broader narrative of western American history, the degree of cooperation and labor and tithing donations make the Mormon settlements distinct from other nineteenth century western communities.

Understanding the first decade of Mormon settlement in southern Utah also helps explain why these two projects were eventually undertaken. On January 1, 1850, a Mormon exploration party led by one of the Church's leaders, Parley P. Pratt, first explored the region around St. George. Pratt reported that the valley around the Virgin River contained "loose Sandy Soil, very

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<sup>9</sup> "Local and Other Matters," *Deseret News*, 23 August 1871.

pleasant for farming, extremely fertile, easily watered & sometimes subject to overflows.”<sup>10</sup>

Pratt continued that the valleys where the cities of Washington and St. George now stand had “perhaps 3 or 4000 acres of very desirable land” and that the climate was very mild, much like early spring despite being in the middle of winter.<sup>11</sup>

The first Mormon settlers to this region were missionaries sent to preach to the local Paiute Indians. These missionaries brought with them cotton and other seeds which they grew with moderate success. In the spring of 1857, Brigham Young, seeing the benefits of growing cotton, sent a group of Mormon converts from the southern states led by Robert D. Covington, a North Carolina native who, previous to joining the Mormon Church, had owned a cotton plantation in Mississippi.<sup>12</sup> These early settlers established the town of Washington. As a result of their southern heritage and experience in growing cotton, the entire region soon came to be known as Utah’s “Dixie.”<sup>13</sup> The Dixie mission was part of Brigham Young’s economic plan to establish what Leonard Arrington called the Great Basin Kingdom, a self-sufficient empire that did not have to rely upon eastern goods in order to thrive. While cotton was initially the primary crop of Dixie, settlers also experimented with a variety of other warm weather crops such as grapes, peaches, and Chinese sugar cane.

Within a few short years after settlement, however, communities throughout southern Utah began to struggle. In Iron County, just north of Washington County, large deposits of iron ore and an abundant forest of juniper trees, to fuel iron furnaces, established hopes of developing

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<sup>10</sup> William B. Smart and Donna T. Smart, eds., *Over the Rim: The Parley P. Pratt Exploring Expedition to Southern Utah, 1849-1850* (Logan: Utah State University Press, 1999), 181.

<sup>11</sup> Smart and Smart, *Over the Rim*, 182.

<sup>12</sup> Larson, *Called to Dixie*, 44.

<sup>13</sup> Alder and Brooks, *History of Washington County*, 8-10.

a large iron industry. But the inability to profitably sustain a local iron industry combined with the tragic Mountain Meadows Massacre of September 1857 caused the majority of Cedar City's population to disperse by the end of the decade.<sup>14</sup> In Washington, the alkali soil, unpredictable currents of the Virgin River—which destroyed several dams and flooded fields—along with epidemics of malaria made the long-term prospects of growing cotton and other crops bleak.<sup>15</sup>

During the summer of 1857, only a few months after the first Washington settlers arrived, George A. Smith visited the village and observed firsthand the difficulties facing the Dixie settlers. He recalled, “When I reached the cotton country, I had previously learned that they were failing in their attempts to raise cotton, and that the waters of the Rio Virgin were poisoning the cotton.” Smith noted that only about a third of the cotton was “exceedingly fine” because of the lateness in planting, the sandy soil, and the hot climate.<sup>16</sup> Although the Washington settlers were initially optimistic in their prospects for cotton growing, by June 1861 all but twenty families had abandoned the mission.<sup>17</sup>

The outbreak of the Civil War, which cut off cotton supplies from the southern states, persuaded Church leaders to not give up on the cotton mission.<sup>18</sup> Church leaders called more than three hundred families in October 1861 to settle in Utah's Dixie, primarily at a new

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<sup>14</sup> Morris A. Shirts and Kathryn H. Shirts, *A Trial Furnace: Southern Utah's Iron Mission* (Provo, Utah: Brigham Young University Press, 2001), 387-402. Shirts notes that at the height of Cedar City in 1855, the population was about 1,000 residents. Within five years, by the 1860 census the population was below 400.

<sup>15</sup> Larson, *Called to Dixie*, 72-74.

<sup>16</sup> Long, “Remarks September 13, 1857.”

<sup>17</sup> Larson, *Called to Dixie*, 72.

<sup>18</sup> “Discourse by Elder Erastus Snow, delivered at Paris, Bear Lake, Saturday Afternoon, August 7<sup>th</sup>, 1880,” reported by Geo. F. Gibbs, *Journal of Discourses* (1854-86; repr., Liverpool and London: Latter-day Saints' Book Depot, 1974), 22: 112.

settlement named St. George.<sup>19</sup> Brigham Young had chosen the site when he visited Washington, Santa Clara and other settlements two years before. When Brigham's carriage reached the small village of Tonaquint at the junction of the Virgin and Santa Clara Rivers and looked north and saw a vision of what was to become of the place. Sweeping his arm across the barren desert valley he prophesied, "There will yet be built, between those volcanic ridges, a City, with spires, towers and steeples, with homes containing many inhabitants." At least one of Young's company, Samuel Knight, one of the Paiute missionaries who lived in Santa Clara, doubted "that such a prophecy could be fulfilled."<sup>20</sup> The *Deseret News* reported on Brigham Young's reflections in 1863:

He said that Saint George is the best location between the Sevier and the Colorado. Some have asked why this place should have been located. I will tell you: it is the very place I intended the city of Saint George to be built upon. When I was on my first visit to Santa Clara and Tonaquint settlements, I saw in a vision this place inhabited by a multitude of people and large domes were towering up in every direction. I shall yet see this with my natural eyes.<sup>21</sup>

Brigham Young believed that the wealth of the land was found in the beauty of its landscape. In 1874, he commented:

Suffice it to say that Saint George is one of the most beautiful places on this little farm—this world that we occupy—this little farm of the Lord's, one of the choicest places on the face of the earth. I see more wealth in that small place than

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<sup>19</sup> Journal History of the Church of Jesus Christ of Latter-day Saints, 8 October 1861, Church History Library, Church of Jesus Christ of Latter-day Saints, Salt Lake City, Utah (herein after CHL).

<sup>20</sup>James G. Bleak, "Annals of the Southern Utah Mission, circa 1898-1907," manuscript, 75-76, box 1, folder 1, CHL. Bleak settled in Saint George in 1861 where he was also called to act as a clerk and historian. Between 1898 and 1907 he compiled "Annals" from the Stake Manuscript History as well as several unidentified records, which likely included his own journal and reminisces. The product of this compilation, "Annals of Southern Utah Mission" is a manuscript history in a chronological journal format.

<sup>21</sup> "Minutes, of a Meeting held at Saint George, Washington county, on the 9<sup>th</sup> and 10<sup>th</sup> of May, 1863," *Deseret News*, 3 June 1863.

in any other location, of its size, in this Territory, or in these mountains; and I always have.<sup>22</sup>

Brigham Young's vision for St. George focused around the construction rather than the agriculture that would take place there. Because of this vision, Brigham Young made the success of St. George a priority. He wanted to make this desert community a gathering place. While other settlements have struggled to survive during lean times, Brigham Young took up the role of organizing a cooperative effort throughout other areas of the Utah Territory in order to make his vision for St. George something he would indeed see with his natural eyes.

On October 19, 1862, Erastus Snow, the Church leader presiding over St. George publicly read a letter he had received from Brigham Young. In the letter, Young informed Snow of plans for a church building he intended to have constructed in St. George:

I wish you and the brethren to build, as speedily as possible, a good substantial, commodious, well finished meeting house, one large enough to comfortably seat at least 2000 persons and that will be not only useful but also an ornament to your city and a credit to your energy and enterprise.

Recognizing that the cash-strapped settlement did not have the means to independently build the structure, Young added:

I hereby place at your disposal, expressly to aid in building the aforesaid meeting-house, the labor, molasses, vegetable and grain tithing of Cedar City and of all places and persons south of that city. I hope you will begin the building at the earliest practicable date; and be able with the aid herein given to speedily prosecute the work to completion.<sup>23</sup>

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<sup>22</sup> "Discourse by President Brigham Young, delivered in the meeting-house in Nephi City, Juab County, Saturday Morning, April 18, 1874," reported by David W. Evans, *Journal of Discourses*, 17:42.

<sup>23</sup> Brigham Young to Erastus Snow, 1 October 1862, as transcribed in Saint George Stake Manuscript History, CHL; Bleak, "Annals," 150-51, box 1, folder 1.



Just over a month later, Snow responded to Young's letter, informing him of the preliminary work for the construction of what would become the St. George Tabernacle. Snow informed Young that they were in the process of building a tithing office to administer the funds and supplies needed for the workers. Snow suggested that the Tabernacle be built on the Public Square, near where residents had already erected a crude, thatch-roofed bowery for meetings. Snow also asked for specific plans regarding the building's design.<sup>24</sup>

Brigham Young visited St. George the following May. At a meeting held in the bowery on the Public Square, he announced specific details of what the Tabernacle was to look like. The *Deseret News* reported, "He did not know what arrangements had been made, but proposed that one should be built 100 ft. by 50 ft., with a spire 150 ft. high; and that one end of the building be so constructed, that when it shall be deemed necessary the house may be conveniently enlarged." Young felt that the bowery was a fitting place to talk about the new building because the open-air structure exposed the congregation to the elements of the temperamental spring weather, and the idea of a new, and enclosed, meeting house might inspire work to commence quickly.<sup>25</sup>

The meeting must have had Young's desired effect. Within just a few weeks, on June 1, 1863, Brigham Young's sixty-second birthday, the cornerstones for the Tabernacle were laid.<sup>26</sup> That fall, as the harvest season began, Orson Pratt and Erastus Snow, both Mormon Apostles, sent a letter to all settlements from Beaver south instructing them to provide tithing funds for the construction of the Tabernacle. They had hoped that tithing paid in kind would be used to pay the workers' wages. The letter also promised compensation for the cost in freighting

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<sup>24</sup> Erastus Snow to Brigham Young, 10 November 1862, Saint George, in Brigham Young Office Files 1832-1878, CHL.

<sup>25</sup>"Minutes, at Saint George."

<sup>26</sup> Saint George Stake Manuscript History, 1 June 1863.

the supplies to St. George at a rate of “\$2 per hundred pounds for each hundred miles.” Credit was offered at the St. George tithing office for perishable items unfit for transport over long distances such as eggs, butter, and fresh meat. Pratt and Snow also called for volunteers to labor on the Tabernacle.<sup>27</sup> It was with these goods that workers, not only on the Tabernacle site, but also workers in the stone quarries and lumber mills and the freighters, were paid.<sup>28</sup>

Because agriculture took priority, work on the Tabernacle would not begin in earnest for several more years. However, the agricultural industry in the middle of a desert was already in a tenuous situation that eventually bottomed out. By the mid-1860s, a severe famine devastated the communities within Washington County. The economic tailspin continued for the next several years. Leonard Arrington pointed to several factors which contributed to Dixie’s depression. He notes that, in 1865, grasshoppers and worms destroyed most of the crops and that the following year was worse, yielding twenty-five percent less cotton. Also, that same year, the Civil War ended and the price of cotton dropped by fifty cents a pound.<sup>29</sup>

As the famine began, Erastus Snow went to Salt Lake City to report on the dire circumstances and plead for aid. A report of his 1864 October General Conference address in Salt Lake City portrays how serious Snow felt:

[Snow] Spoke of the settling of the town of St. George...also of the scarcity of water, the labor of getting grain and flour to feed the folks with. There were over a thousand persons in St. George, he said, one half of whom would have to leave unless something was done to relieve the mission and help the poor man to continue his labors on the fences and canals that were in progress there.<sup>30</sup>

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<sup>27</sup>Bleak, “Annals,” 187-189, box 1, folder 1.

<sup>28</sup>Larson, *Called to Dixie*, 568.

<sup>29</sup>Arrington, *Great Basin Kingdom*, 219-20.

<sup>30</sup>“Semi-Annual Conference of the Church of Jesus Christ of Latter-day Saints,” *Deseret News*, 12 October 1864.

After Snow's address, Young called out one hundred names, "principally men of wealth," to settle St. George not for the purpose of raising cotton, but to provide labor and resources to assist those suffering from the famine.<sup>31</sup>

Young realized a new approach was necessary if his southern headquarters were to survive this agricultural depression. After a decade of experimentation, the cotton mission had proved unprofitable. While Young had already directed the construction of the Tabernacle, work moved slowly. In the midst of the famine, work was only completed on the foundations. Within the intervening years Young would reinvigorate the community by emphasizing the construction of the Tabernacle and later the Temple. His call of several wealthier Mormons to settle the region would also be necessary to bring an influx of capital and labor to sustain the public works effort.

However, one major obstacle hindering construction remained as a result of the famine. The drop in agricultural production decreased the tithing donations of foodstuffs to pay the workers, while the lack of cash continued to be a problem. Erastus Snow observed first hand the suffering of the workers. Snow wrote a letter to George A. Smith in March 1865 where he stated that there wasn't enough bread or meat to support the workers within the region between Beaver and St. George, the region which provided the tithing to support construction. Even those who were called the previous fall to strengthen the settlement did little to provide aid to the situation.<sup>32</sup> For St. George to survive and the Tabernacle to be completed, more outside aid would be necessary from a broader reach of settlements.

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<sup>31</sup> "The Thirty Fourth Semi-Annual Conference," *Deseret News*, 12 October 1864.

<sup>32</sup> Erastus Snow to George A. Smith, 20 March 1865, Saint George, Correspondence, *Deseret News*, 5 April 1865.

In the first part of November 1866, during a conference of the southern Utah settlements, Erastus Snow informed the people that he would ask the Territorial Legislature “for a liberal amount” or a charter to put in a toll road in order to raise funds to improve the roads between settlements. One of the roads Snow wanted improved was between St. George and Pine Valley where the lumber for the Tabernacle was milled.

Snow also asked the congregation to recommit themselves to the building of the Tabernacle. James Bleak recorded:

He called upon quarrymen and stone cutters masons and laborers to be ready to respond to a call to resume the work on St George Tabernacle. And asked the people of the settlements, outside of the settlements, outside of St George, to be on hand to haul in their tithing produce, with which to pay those who shall work on the building.

After Snow’s comments, a vote was called to sustain the actions he called for. The reply was “a hearty affirmative respo[n]se.”<sup>33</sup>

From that moment on, work on the Tabernacle progressed steadily, as apparently more resources and laborers were committed. Brigham Young’s position as prophet and leader of the Church enabled him to encourage cooperation from a wider range of communities. Without the involvement of Young and other Church leaders it seems highly unlikely that other struggling settlements would part with their precious resources. Flour was hauled over two hundred miles from Sanpete County. After a direct request from Erastus Snow, Young also arranged for cattle to be brought in from Pipe Springs, just across the Arizona border.<sup>34</sup>

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<sup>33</sup>Bleak, “Annals,” 357-359, box 1, folder 1.

<sup>34</sup> “A Story from the Past,” *Deseret News*, June 8, 1948; Joseph W. Young to Brigham Young, 24 February 1871, in Brigham Young Office Files; Erastus Snow to Brigham Young, 29 March 1871 in Brigham Young Office Files.

The first meetings in the Tabernacle were held in the basement on March 20, 1869.<sup>35</sup> Most of the work for the exterior was completed in 1871, the year Brigham Young announced the construction of the Temple. About that time, Erastus Snow noted that from the tithing donations over fifty families were supported through the construction of the Tabernacle.<sup>36</sup> On December 29, 1871, the capstone was laid in a grand celebration.<sup>37</sup> On May 23, 1872, the masonry work on the building's exterior was completed. On that day Charles Walker who had worked on the St. George Tabernacle for more than five years, helped straighten the steps that led to the front entrance.<sup>38</sup> Before finishing, Walker penned a poem which expressed gratitude for those in Sanpete County and other parts of Utah for providing flour and other supplies to sustain himself and his fellow workers:

Full seven long years  
We now have worked,  
And from our task  
Have never shirked;  
We have oft fared short,  
For many an hour,  
And now are fed  
On Sanpete flour.

His poem, along with the names of some of the chief workers, was placed in a green bottle, which someone, possibly Walker himself, embedded in the steps of the Tabernacle before sealing them.<sup>39</sup>

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<sup>35</sup> Saint George Stake Manuscript History, 20-21 March 1869.

<sup>36</sup> Erastus Snow to Brigham Young, 4 October 1871 in Brigham Young Office Files.

<sup>37</sup> A. Karl Larson and Katharine Miles Larson, eds., *Diary of Charles Lowell Walker*, 2 vols. (Logan: Utah State University Press, 1980), 1:338.

<sup>38</sup> *Diary of Charles Lowell Walker*, 1: 344-45.

<sup>39</sup> "Story from the Past." For the poem in its entirety see the appendix.

As the year 1871 dawned in St. George and the pace of construction on the Tabernacle increased, James Bleak commented on the impact of the public works projects on the community. He wrote, “The town of St. George is orderly, public improvements going ahead rapidly; it is almost a wonder by what magic hand so fine a city could, in so short a time, spring up in a desert.”<sup>40</sup> While Bleak and others marveled at how the Tabernacle and other public works improved the city, the announcement of yet another public works building would infuse even more optimism into the entire region and forever provide an identity for the city.

On Tuesday, January 31, 1871, Brigham Young, who by this time had established a winter home in St. George, held a meeting with some of the community leaders, including Erastus Snow. James Bleak recorded:

At this council President Young asked the brethren what they thought of building a Temple in S<sup>t</sup> George.

The bare mention of such a blessing from the Lord was greeted with: ‘Glory! Hallelujah!!’ from President Erastus Snow, and all present appeared to share the joy.<sup>41</sup>

Brigham Young made the announcement official in a letter to Erastus Snow dated April 4, 1871. Young once again took the lead in directing the allocation of resources to be used for the Temple’s construction. He counseled that the building of the Tabernacle be completed within the year so all available resources could be devoted to the Temple. He called for supplies to be prepared within the surrounding communities as far away as Beaver, over a hundred miles to the north. He asked Snow to inform him if there was not enough labor for the temple, so he

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<sup>40</sup>Bleak, “Annals,” 1871, 2, box 1, folder 1.

<sup>41</sup> Bleak, “Annals,” 1871, 9-10, box 1, folder 1.

could make arrangement for more if necessary. In the letter, Young also listed very specific requirements to be included in the Temple's design:

The building—outside measurement, is 142 ft long by 96 ft. wide, including the buttresses & 80 ft high to the top of the parapet. It will be built of stone, plastered outside & inside. There will be a tower in the centre of one end, & on the extreme corners of the same end right & left of the tower are cylinder staircases. One side of the stairs rests in the cylinder, the other side, in a newel in the centre of the cylinder. The roof will be flat & covered with roofing similar to that on the New Tabernacle in this city. The building will consist of two Stories & a basement. The two main rooms or halls, one over the other, will be 100 ft. by 80. The ceilings of these will be arched, resting upon columns, & so constructed as to admit of 16 rooms for council & other purposes on either stories. The height of the main ceilings in the centre is 27 feet. the height of the other ceilings about 9 ft. The basement will contain the font and will be used for ceremonial purposes.<sup>42</sup>

One month before the capstone was laid on the St. George Tabernacle, and just a couple of blocks south, witnesses gathered for the groundbreaking of the Temple.<sup>43</sup> On that occasion Brigham Young reminded residents of St. George about the sacrifices early Mormons had made to build the temples in Kirtland, Ohio, and Nauvoo, Illinois. When he asked if the residents of St. George would be willing to go through the same type of sacrifices, the answer was “a resounding ‘Yes.’”<sup>44</sup>

The work on the Temple required plenty of ingenuity on the part of the St. George residents. The building site was partly submerged by a small bog. Concerned the heavy walls of the Temple would not be supported on the unstable ground, workers needed to engineer a way to support the foundations. An additional problem was that the alkali in the soil mixed with water would erode the sandstone foundation. Elizabeth Kane accompanied her husband Thomas, a

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<sup>42</sup>Brigham Young to Erastus Snow, 5 April 1871, in Brigham Young Office Files.

<sup>43</sup>*Diary of Charles Lowell Walker*, 1: 335-6.

<sup>44</sup>Larson, *Called to Dixie*, 579-80.

longtime friend of the Mormons, on a trip to visit the southern Utah settlements. Kane witnessed firsthand the work on the foundations and pitied the workers for these obstacles. She commented:

How discouraging it must be! The brethren who were sent to St[.] George were the very best people in the Territory, I have been told, and they have certainly proved their zeal by the energy with which they have built this place in the face of discouragement. But they have one disheartening difficulty to face after another; and they are too intelligent not to have found it out.

Kane noted that the same problem also plagued the foundations of the Tabernacle as well.<sup>45</sup> The solution to making a stable foundation was found by using the volcanic basalt on Black Hill just west of town and pile driving them with an old cannon whose barrel had been filled with cement.<sup>46</sup>

The building of the Temple was a large undertaking that required a great amount of capital and labor, beyond anything St. George alone was prepared to handle. Paying the work force was a constant concern. Just like the Tabernacle, most of the pay came through food and other supplies, which constantly needed to be replenished by communities throughout Utah. Orson Huntsman, who lived at Hebron on the northwest corner of Washington County, recorded that in April 1872 work on the Temple was about to stall due to the lack of provisions. Huntsman traveled with a small party sent by Erastus Snow to gather donations from each town as far north as Sanpete County, “holding the sacks, and taking in everything the good people would give us.”

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<sup>45</sup> Elizabeth Wood Kane, *A Gentile Account of Life in Utah's Dixie, 1872-73: Elizabeth Kane's St. George Journal* (Salt Lake City: Tanner Trust Fund, University of Utah Library, 1995), 43-44.

<sup>46</sup>Larson, *Called to Dixie*, 581-83.



Huntsman returned with loads of flour, eggs, pork and store goods, from which he and the rest of his party were paid a portion for their service.<sup>47</sup>

In addition to provisions, cash donations were also crucial to the Temple's construction. Church leaders in Salt Lake City made constant pleas for donations. Presiding Bishop Edward W. Hunter and his two counselors Leonard Wilford Hardy and Jesse Carter Little wrote to Provo mayor and local church leader Abraham O. Smoot on April 3, 1874 encouraging him to use his influence in gathering donations from that city:

No Mission since the organization of the Church has had so many natural barriers to overcome, so much costly labour to perform, nor such a lengthy drain on the Faith, Perseverance, Patience and Pockets of the people, as the one usually called "The Dixie Mission;" The last and heaviest drain upon their resources is the building of the Temple, and never was a call made, that met with a more universal, and happy response, but their utter inability to complete such a gigantic labour with the means they had at command, necessitated a call for help from their Northern Neighbours, hence we in this City have had the privilege of raising several thousand Dollars through the various wards, for that purpose, and should the members of your County feel desirous of enjoying the same privilege that they with us may share in the blessings of that Temple when completed, we hereby extend to all such a cordial invitation to participate; let neither the rich nor the poor be slighted, but everyone in your entire district have a chance to donate something towards the first erected Temple in Utah Territory, not even refusing the Widows mite of 5 or 10 cents, which in the sight of the God is equal to the rich mans \$50.00 or \$100.00. When this is first presented to the people many may not be immediately prepared to respond as they would like to, let all such have a little time to make such turns, as to satisfy their feelings. We are constantly receiving orders for supplies of various kinds to keep the work moving, hence what money you receive, please forward to this office. Those who have no money might wish to turn in some grain, or stock, either of which can easily be converted into cash. Home made Cloth or Socks would be very acceptable to the

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<sup>47</sup> Orson W. Huntsman, Journal, 1849-1931, 1:126-129, microfilm, Family History Library, Church of Jesus Christ of Latter-day Saints, Salt Lake City.

workmen; Having thus given you an outline of the subject, we leave with you and your Co laborers to fill up the interstices.<sup>48</sup>

Kirk M. Curtis, who researched the St. George Temple ledger book, noted that at least fifty communities throughout Utah and Pipe Springs, Arizona donated to the St. George Temple, though the actual number was likely even higher.<sup>49</sup>

Not only were donations needed, but St. George also needed to import a large labor force. In addition to the labor force needed directly at the worksite, perhaps even more were needed to support peripheral industries established to support the construction. Stone cutters worked at several rock quarries on the west end of town extracting basalt for the foundations and sandstone and limestone from quarries just north of the city. Additionally freighters were needed to haul stone from the quarries to the work site.

In addition to stone, the construction of the Temple required a plentiful source of high quality lumber. Robert Gardner, an experienced miller, was called to explore the regions south of St. George for that purpose. A suitable site was found on the slopes of Mount Trumbull, seventy miles south of St. George near the north rim of the Grand Canyon.<sup>50</sup> In 1874, Brigham Young proposed purchasing a steam-powered saw mill with tithing credit for the Mount Trumbull lumber operation.<sup>51</sup> When the mill was set up that June, the Church incorporated the

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<sup>48</sup> Ed. W. Hunter, L. W. Hardy and J. A. Little to A. O. Smoot, 3 April 1874, St. George Temple File, quoted in Kirk M. Curtis, "History of the St. George Temple" (master's thesis, Brigham Young University, 1964), 60-61.

<sup>49</sup> Curtis, "History of Temple," 61-62.

<sup>50</sup> Robert Gardner, "Diaries and Reminiscences," vol. 5, 40-42, 48-53, CHL.

<sup>51</sup> Brigham Young to Daniel H. Wells, 11 Feb. [1874], Saint George, in Telegram Book, Brigham Young Office Files.

new Mount Trumbull Lumber Company to supply the needs for both the Tabernacle and Temple construction.<sup>52</sup>

The establishment of the lumber company at Mount Trumbull added to the considerable amount of labor and capital already supporting the public works operations in St. George. Not only was labor needed at the sawmill but also to build the road over which the milled lumber would be hauled back to the construction sites. A. Milton Musser, a local representative for Brigham Young, explained that it would take forty men just to run the mill and another man with four horse teams to haul the water to the steam engines, and another hundred teams to haul the lumber back to St. George. Additionally, thousands of dollars would need to be allocated to the building of the road with roughly another seventy-five to one hundred men to construct it.<sup>53</sup> Lacking a large enough labor force in Washington County, the Church called on volunteers throughout Utah. For example, Church leaders called for volunteers from Beaver and Iron Counties to support the Mount Trumbull Lumber Company.<sup>54</sup>

The Temple construction project caused a large influx of outside labor. Charles Walker noted that one hundred men who came from Sanpete County were involved in setting up the walls of the Temple, working in the stone quarries, building roads and hauling wood, lime, sand and other materials. These Sanpete workers added to the labor force from other Utah cities of

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<sup>52</sup> Richard Bentley to President G[eorge] A. Smith, 9 June 1874, in Incoming Correspondence, Brigham Young Office Files.

<sup>53</sup> A. M. Musser to Brigham Young and George A. Smith, 20 September [1874], in Telegram Book, Brigham Young Office Files.

<sup>54</sup> Robert Gardner to Brigham Young, 1 July 1874, in Incoming Correspondence, Brigham Young Office Files.

Fillmore, Beaver, Kanab, Rockville, Virgin City, Minersville, Panguitch and Holden who were already working on the project.<sup>55</sup>

Church leaders in Salt Lake City encouraged all Mormons to become involved and in the effort to build a temple in the secluded corner of Utah Territory. George A. Smith made a plea in front of the Church's General Conference in May 1874 for 150 men to work on the Temple during the summer months.<sup>56</sup> Smith continued this theme during a Conference that October:

We also wish during the Conference, to call the attention of the brethren to the propriety of some two or three hundred hands from different parts of the northern settlements volunteering to go to St. George this winter to work on the Temple, making a donation of their labor. During last winter quite a number of the brethren went down from Sanpete and some of the neighboring counties, and put in about three months work, and during the entire winter there were only seven and a half days they could not lay stone on the Temple, and they were mostly rainy days. Those of us who have not got anything to employ us to advantage during the winter, can go down there and put in three or four months' work on that Temple, in getting lumber, and hauling it, in quarrying rock, and in cutting and setting it; in making mortar, proving lime and hauling it, and in aiding in all the various departments of labor necessary. We can have the walls put up and get the timber ready for the roof during the winter, while we should be doing comparatively little at home.<sup>57</sup>

Smith's overtures found an immediate reaction from many around the territory. Three days after Smith made his plea, another Mormon Apostle and later successor to Brigham Young, John Taylor was pleased to see many step-up to volunteer. Taylor commented:

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<sup>55</sup>*Diary of Charles Lowell Walker*, 1:379, 381.

<sup>56</sup> "Discourse by President George A. Smith, delivered at the adjourned General Conference, held in the new tabernacle, Salt Lake City, Sunday afternoon, May 10, 1874," reported by David W. Evans, *Journal of Discourses*, 17:87-88.

<sup>57</sup> "Remarks by President George A. Smith, delivered at the Semi-Annual Conference of the Church of Jesus Christ of Latter-day Saints, in the new tabernacle, Salt Lake City, Tuesday Morning, October 6, 1874," reported by David W. Evans, *Journal of Discourses*, 17: 197-198. Also quoted in Curtis, "History of Temple," 45-46.

That shows there is something like union among the Latter-day Saints. I like to see principles of that kind operating among us, it shows that we possess a portion of the spirit of the work, and that we appreciate the Gospel.<sup>58</sup>

Within a month workers from throughout northern Utah were making their way south to work on the Temple. On October 31, a company arrived from the city of Nephi with several workers, a commissary, and three cooks, which included the wife of Edwin Scott who also went as a cook.<sup>59</sup> Another fifty men came from Cache Valley in the northeast corner of Utah, nearly 400 miles away.<sup>60</sup> By January 1875 the *Salt Lake Herald* reported that under the daily supervision of Brigham Young, over 500 were employed in the Temple's construction.<sup>61</sup>

Work on the temple also provided an opportunity for small businesses to be set up to support the workers. Historian Karl Larson noted that the Church provided Joseph Oxborrow and Charles Bennett a bakery near the Tabernacle site.<sup>62</sup> The Winsor family who provided the cattle from Pipe Springs to support the workers for the Tabernacle continued to provide more supplies for the influx of labor at the Temple. Joseph F. Winsor, whose father, Anson P. Winsor was responsible for the herd, recorded that they milked 100 to 150 cows in order to make enough cheese and butter to bring to St. George, in addition to the beef they provided.<sup>63</sup>

The call to travel far away from home undoubtedly took a toll on those who came to work on the Temple. While it is possible there may have been some resentment among other

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<sup>58</sup> "Discourse by Elder John Taylor, delivered at the Semi-Annual General Conference of the Church of Jesus Christ of Latter-day Saints, in the new tabernacle, Salt Lake City, Friday afternoon, October 9, 1874", reported by David W. Evans, *Journal of Discourses*, 17: 174. Also quoted in Curtis, "History of Temple," 46.

<sup>59</sup> "Gone to St. George," *Deseret News*, 9 November 1874.

<sup>60</sup> "From Cache to St. George," *Deseret News*, 9 November 1874.

<sup>61</sup> "From St. George," *Salt Lake Herald*, 9 January 1875.

<sup>62</sup> Larson, *Called to Dixie*, 587-88.

<sup>63</sup> Larson, *Called to Dixie*, 240.

Utah communities for having labor and resources taken away from them in order to build up St. George, the records do not reflect any growing animosity. Mormons felt duty-bound to support their Church leaders. Mary Larsen Ahlstrom of Ephraim, Sanpete County, recorded that her husband was one of fourteen men called from that community to work on the temple. Reflecting on the sacrifice of being left at home alone with four children, while expecting another, she wrote, “He was away all winter and we got along as best we could.”<sup>64</sup> Ahlstrom’s response was common of many others who sacrificed for the good of the Church.

For those who lived in Washington County at communities adjacent to St. George there was likely a feeling of excitement rather than one of resentment. For them, St. George was quickly becoming their religious, civic, and cultural hub as Brigham Young envisioned. The erecting of both the Temple and Tabernacle only served to expedite the transformation of the entire region from a sparse desert to a thriving oasis. However, this transition was only possible with the outside aid and cooperation.

The work on the Temple progressed steadily. In early 1874, workers finished the foundation. Just over a year later, on March 6, 1875, the west wall had been erected. To commemorate that occasion a celebration was held in the Tabernacle on behalf of all the workers. Charles Walker penned another poem set to the tune of “Marching through Georgia” to honor the volunteer workers:

Ye Saints throughout the mountains,  
Pray listen to my rhyme,  
Of a noble Band of Brethren  
Who came to Dixie’s clime  
To build a Holy Temple,  
Just in a Stated time,

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<sup>64</sup> Quoted in Anne Leavitt, “The Temple of Our God’s Completed: Building the St. George Temple,” *Pioneer* 54, no. 4 (2007): 12.

As they were counselled by Brigham,  
They left their homes and firesides,  
    Responsive to the Call  
And labored hard and faithfull  
    To rear the Temple wall.  
Their union and their oneness,  
    Was seen and felt by all  
    Who labored to build up the Temple.<sup>65</sup>

Walker, like many St. George residents, was becoming aware of the region's complete dependence on the sacrifice of the many other Utah communities. His poems were an artistic expression for showing gratitude for the aid that these other communities provided to his community's survival.

Although the Mormon economy under Brigham Young organized cooperatives and had strong emphasis on unity of labor, the United Order, which was established in St. George in 1874, gave a stronger religious emphasis to these principles. In essence, all those who entered into the United Orders were required to give all they had, both in means and labor, "to the building up of the Kingdom of God." For Brigham Young, the organization of United Orders throughout Utah was in direct response to external economic forces. One of the biggest factors was the Panic of 1873 that closed down mines throughout the entire West, which caused Mormons to lose their jobs in Utah mines as well as a trading market for Mormon products. Brigham Young, who advocated for a self-sustaining economy, believed that the establishment of the United Order would make Utah immune to national economic trends.<sup>66</sup>

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<sup>65</sup>*Diary of Charles Lowell Walker*, 1:402-3. For the poem in its entirety see the appendix.

<sup>66</sup> Leonard J. Arrington, Feramorz Y. Fox and Dean May, *Building the City of God: Community and Cooperation Among the Mormons* (Salt Lake City: Deseret Book Co., 1976), 136-137.

The establishment of the United Order in St. George also served to provide religious motivation toward the construction of the Temple. Church leaders had long worried that trading with outside markets was taking away valuable labor and resources from the Temple. The sawmills at Pine Valley, for example, gave priority to the mining towns in eastern Nevada who paid cash for their lumber, which motivated Church leaders to establish the sawmills at Mount Trumbull.<sup>67</sup> Leaders of the United Order were able to organize labor for better efficiency. Bishops within the St. George Temple district were expected to organize temple committees who were expected to provide any needed assistance toward building the Temple.<sup>68</sup> A week after the completion of the west wall, for example, work organized by the United Order began on the road between St. George and Mount Trumbull. Forty-five workers employed from several communities throughout the area finished the road on May 16, at a cost of \$10,000.<sup>69</sup> In one of the many speeches Brigham Young made endorsing the efforts of the United Order, he remarked:

...this temple in St. George is being built upon the principle of the United Order; and when we cease our selfishness, and our whole interest is for the building up of the Kingdom of God on earth, we can then build temples and do anything that we want to with united voice and hands.<sup>70</sup>

With the road to Mt. Trumbull in place, and the increased help through an influx of labor and capital, work on the Temple proceeded rapidly. The baptismal font, which rested on the backs of twelve bronzed oxen, was delivered from Salt Lake City in the summer of 1875. By

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<sup>67</sup> Alder and Brooks, *History of Washington County*, 53.

<sup>68</sup> Arrington, *Great Basin Kingdom*, 339-341.

<sup>69</sup> Bleak, "Annals," 106-114, box 1, folder 3; Larson, *Called to Dixie*, 586; Arrington, Fox and May, *City of God*, 168.

<sup>70</sup> Saint George Stake Manuscript History, 10 January 1875. Also quoted in Arrington, Fox and May, *City of God*, 165.



August the font was used to baptize members into the United Order.<sup>71</sup> A month later masons finished the parapets on the top of the building.<sup>72</sup> Later that year plastering the sandstone on the outer walls was begun to give the Temple a white appearance.<sup>73</sup>

Brigham Young's vision of seeing a desert bloom into a city of spires, towers and steeples with his natural eyes became a reality when the St. George Temple was completed in 1877. On New Year's Day, Young presided over a small, private dedicatory service while work on the interior continued. Young, by this time, was showing the effects of age and illness.<sup>74</sup> A public dedication took place during the Church's General Conference which was held that year at St. George in early April. The completion of the St. George Tabernacle and Temple made Brigham Young's vision of a city with large towering domes a reality. As Young predicted, he lived to see the vision he beheld when first visiting the site in the summer of 1861. On August 29, 1877, just months after the dedication of the St. George Temple, Brigham Young passed away.

The Temple's chief mason Edward L. Parry confirmed that the finished building was near what Brigham Young envisioned when he wrote to Erastus Snow on April 4, 1871. The Temple measured 141 feet 8 inches in length, 93 feet 4 inches in width, and 84 feet to the top parapet. Seventeen thousand tons of rock and one million feet of lumber were used in the construction. Parry estimated that the final cost of the Temple was about \$800,000.<sup>75</sup>

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<sup>71</sup>Curtis, "History of Temple," 54-56; *Diary of Charles Lowell Walker*, 1: 413-414.

<sup>72</sup>"The St. George Temple," *Deseret News*, 20 September 1875.

<sup>73</sup>*Diary of Charles Lowell Walker*, 1: 415.

<sup>74</sup>*Diary of Charles Lowell Walker*, 1:440-3.

<sup>75</sup>Edward L. Parry, Chief Mason, Memorandum, 8 February 1878, St. George Public Library, quoted in Curtis, "History of Temple," 134-135.

The completion of the Tabernacle and Temple did have the desired effect of making St. George the hub of southern Utah. In addition to regular Sunday meetings, the Tabernacle also hosted cultural events such as concerts, plays, and civic celebrations. The local choir, directed by John Menzies Macfarlane, performed many memorable concerts during the early years of the Tabernacle. Perhaps his choir's most popular events were the Christmas concerts featuring Macfarlane's most famous composition, "Far, Far Away on Judea's Plains."<sup>76</sup>

Even new non-Mormon settlers benefited from the completion of the Tabernacle and Temple. Between 1870 and 1880 the county's population increased 38 percent from 3,064 to 4,235, with St. George accounting for 21 percent of this growth as its population increased from 1,142 to 1,384. Most of the increase, however, was due to the discovery of silver nearly twenty miles northeast of St. George at the same time these buildings were erected. Within a short time the mining town of Silver Reef appeared to rival its Mormon neighbor. Near its height in 1880, Silver Reef reached a population reached 1,046 residents.<sup>77</sup> While, no doubt, cultural conflicts arose between Silver Reef and the religious sensibilities of its neighbors, the mines injected much needed specie into the cash starved economy.

The resource infrastructure developed through the public works buildings in St. George also helped to facilitate the growth of Silver Reef. The lumber mills at Pine Valley and Mt. Trumbull used for the construction of the St. George edifices continued to hum along, producing building materials for Silver Reef. Teamsters were also utilized hauling building materials and silver ore to and from the town. Even the meager agricultural industry of Washington County

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<sup>76</sup>John Menzies Macfarlane, "Far, Far Away on Judea's Plains," in *Hymns of the Church of Jesus Christ of Latter-day Saints* (Salt Lake City: The Church of Jesus Christ of Latter-day Saints, 1985), 212; L. W. MacFarlane, *Yours Sincerely, John M. Macfarlane* (Salt Lake City: L. W. Macfarlane, 1980), 96-101.

<sup>77</sup> U. S. Census Bureau, *Statistics of the Population of the United States at the Tenth Census* (Washington, D.C.: Government Printing Office, 1880), 82, 353.

benefited as farmers found in the miners a ready market for their produce, livestock and other foodstuffs.<sup>78</sup>

Some of these new comers, though not Mormon themselves, realized the important cultural value of the Tabernacle to the region. John Macfarlane, who also was employed as a county surveyor, struck a quick friendship with Catholic Father Lawrence Scanlan while surveying the booming mine town. Scanlan who was ministering to his flock at Silver Reef lamented being unable to hold mass in a suitable building. Macfarlane arranged for Father Scanlan to perform mass at the Tabernacle on May 25, 1879. Scanlan's mass filled the Tabernacle with Catholic miners from Silver Reef and local Mormons including Apostle Erastus Snow and Stake President John D. T. McAllister. Macfarlane's all-Mormon choir practiced Peters' *Mass in D* for weeks so they would be able to perform the music in Latin. Following the mass, Scanlan gave a sermon explaining the tenets of his faith to the curious Mormons, which began, "I think you are wrong, and you think I am wrong, but this should not prevent us from treating each other with due consideration and respect."<sup>79</sup> The event became a noteworthy exhibition of inter-faith relationships between Mormons and Catholics in early Utah.

The St. George Temple was the first Mormon temple in Utah Territory, and remained the only temple in the territory until the completion of temples in Logan, Cache County in 1884 and in Manti, Sanpete County in 1888.<sup>80</sup> While the numbers are difficult to ascertain, the addition of

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<sup>78</sup>Larson, *Called to Dixie*, 314-22; Alder and Brooks, *History of Washington County*, 107-108.

<sup>79</sup> St. George Stake Manuscript History, 25 May 1879; Alder and Brooks, *History of Washington County*, 108-109; Thomas G. Alexander, *Utah: The Right Place*, Rev. ed. (Salt Lake City: Gibbs Smith, 2007), 184-85; *Diary of Charles Lowell Walker*, 1:485; MacFarlane, *John M. Macfarlane*, 153-159.

<sup>80</sup> Just as residents in Sanpete County had helped in the construction of the St. George Temple, residents of Washington County donated \$2,187 while others, including chief mason Edward L. Parry were sent to help in the construction of the Manti Temple within months after their temple's completion. See Bleak, "Annals," manuscript, 143, 145, box 1, folder 3.

a Temple attracted many Mormons to St. George throughout Utah and beyond. Even years before its completion, George A. Smith was promoting the city as a destination for religious pilgrimages:

The building is in a nice locality and in a very fine climate, where, all winter, and in fact the whole year, there is almost perpetual spring and summer weather; and when the Temple is completed there will be an opportunity to go there and spend the winter and attend to religious ordinances or enjoy yourselves; and if you want to go there through the summer you can eat as delicious fruits as ever grew out of the earth in any country I believe.<sup>81</sup>

As Mormon colonization spread further south into Arizona, the road leading from St. George became known as the Honeymoon Trail for the several new couples who married there and started a new life in Arizona.<sup>82</sup>

Though it would be several years before St. George would see significant growth, both in population and economy, by 1880 St. George was beginning to distinguish itself from its other neighboring communities. With the exception of Silver Reef, the closest Mormon community in size to St. George was Washington with 537 residents, less than half the population of St. George.<sup>83</sup> The improvements within St. George also correlated with a slight edge in property values from its neighbors. According to 1880 census statistics the assessed value of real estate for Washington County was \$433,425 with St. George contributing \$205,925. Per capita St. George residents' real estate was worth \$148.79, compared to the per capita assessed value for all of Washington County at \$102.32.<sup>84</sup>

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<sup>81</sup> "George A. Smith, May 10, 1874," *Journal of Discourses*, 17:87.

<sup>82</sup> Kenneth Mays, "The Honeymoon Trail," *Pioneer* 54, no. 4 (2007): 31-32.

<sup>83</sup> U. S. Census Bureau, *Statistics of the Population of the United States at the Tenth Census*, 353.

<sup>84</sup> U. S. Census Bureau, *Report on Valuation, Taxation, and Public Indebtedness in the United States as Returned at the Tenth Census* (Washington, D.C.: Government Printing Office, 1884), 213. Per Capita real estate values determined by dividing the assessed real estate values by the total population.

Out of the rocks taken from the sandstone cliffs, along with outside help, residents of St. George were able to persist in one of the most extreme environments of the American West. As Patricia Limerick contended, the history of the West was more a story of dependence rather than independence.<sup>85</sup> What made Utah unique to the rest of the West was the role which the Mormon Church played as opposed to government assistance. Mormon ideals of cooperation and unity were on display during the public works campaign of the 1860s and 1870s. St. George tried to become independent and self-sustaining by trying to duplicate the agricultural successes of the southern states. A variety of harsh environmental realities and inadequate crop yields combined with the devastating famine in 1864-65 quickly quashed those dreams. However, Brigham Young's unwavering commitment to and vigorous investment in St. George made the colony a permanent success. Without the public works projects and the influx of capital and labor from throughout the Utah territory that resulted from them, St. George threatened to wilt under the heat of the scorching desert sun. The community had become dependent upon outside assistance for its survival. Local residents' willingness to reach out to other communities for aid illustrated a consciousness on their part about their own dependence.

Although St. George continued to be a community dependent on outside resources, the public works program showed that it could still be a flourishing community as well. Dependency and success are not necessarily contradictory. The construction of the Tabernacle and Temple encouraged a labor force to flow into the city. New and expanded industries supported these projects, including stone quarries, freighting, and the Mount Trumbull Lumber Company. The dependency of St. George, as manifested in the public works projects, fostered within the community and the entire Utah Territory a spirit of cooperation. The resulting buildings, the St.

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<sup>85</sup> Patricia Nelson Limerick, *The Legacy of Conquest: The Unbroken Past of the American West* (New York: W. W. Norton & Company, 1987), 78-96.

George Tabernacle and the St. George Temple, also provided the community with an identity, remaining to this day as the most prominent, man-made historic landmarks throughout the entire region.

### CHAPTER III

“IT IS TOO GOOD TO THROW AWAY”:

WATER AND NEW SETTLEMENT,

1890s AND 1900s

During the decade of the 1890s, the transition between the old century and the approaching one was as literal as it was symbolic. It was in this decade historian Frederick Jackson Turner presented his benchmark work, “The Significance of the Frontier in American History,” where he argued that America’s progress was tied to its ability to push forward on new lands. Turner noted a relatively insignificant statement from the 1890 Census Superintendent that caused him to believe that an old chapter of American history was closing. The Superintendent stated in a bulletin:

Up to and including 1880 the country had a frontier of settlement, but at present the unsettled area has been so broken into by isolated bodies of settlement that there can hardly be said to be a frontier line. In the discussion of its extent, its westward movement, etc., it can not, therefore, any longer have a place in the census reports.<sup>1</sup>

While this statement was no more than a mere note of how the Census Bureau viewed American settlement, Turner saw something more significant. Turner analyzed:

This brief official statement marks the closing of a great historic movement. Up to our own day American history has been in a large degree the history of the colonization of the Great West. The existence of an area of free land, its continuous recession, and the advance of American settlement westward, explain American development.<sup>2</sup>

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<sup>1</sup> Quoted in Frederick Jackson Turner, “The Significance of the Frontier in American History,” in *Frontier and Section: Selected Essays of Frederick Jackson Turner: Frontier and Section* (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1961), 37.

<sup>2</sup> Turner, “Significance of the Frontier,” 37.

Turner's work offers an insight into the thinking that prevailed in his generation when a severe depression caused him to question the future of American prosperity. The significant year for Turner's thesis was not 1890 but rather 1893, the year Turner presented his theory in Chicago. It was in 1893 that America found itself in its most serious economic depression up to that time. Previous to the 1890s, railroad construction and mining, two pillars of the West's economy, were soaring. When the depression hit, these two important industries suddenly collapsed. Many speculated that the overcapitalization of the railroads and mines were major contributors. As the depression continued to drag on, Turner continued his pessimistic view of the West's future development. In 1896, he observed that:

The West has been built up with borrowed capital, and the question of the stability of gold, as a standard of deferred payments, is eagerly agitated by the debtor West profoundly dissatisfied with the industrial conditions that confront it, and actuated by frontier directness and rigor in its remedies.<sup>3</sup>

Turner's belief that American economic progress had previously been tied to expansion to new frontiers, rich in resources ready for exploitation, saw limited hope in a future offering no new lands to colonize within America's boundaries.

The notion that America's continued economic prosperity was tied to frontier expansion may not be entirely accurate, but this theory offers a contemporary insight into a prevalent view during the 1890s that the end of western expansion resulted in a sudden and prolonged collapse. What Turner suggested was that in order for the West to prosper it must find a new type of development, since there was no open frontiers to provide a safety valve.

Ten years after Turner first presented his frontier thesis he offered his perspective on how new western development might proceed:

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<sup>3</sup> Frederick Jackson Turner, "The Problem of the West," in *Frontier and Section*, 74.



Here expensive irrigation works must be constructed, cooperative activity was demanded in utilization of the water supply, capital beyond the reach of the small farmer was required. In a word, the physiographic province itself decreed that the destiny of this new frontier should be social rather than individual.<sup>4</sup>

Turner's idea on how to encourage future development was in a sense a blue print for Washington County during the Depression of 1893. Large, expensive irrigation projects built through cooperative labor and subsidized through outside capital gave rise for new lands to settle.

Utah, perhaps more than most states in the West, was caught up in this transformation of economic principles primarily because of the influence of the Mormon Church. As historian Leonard Arrington observed, Mormon development in Utah followed similar patterns to other western settlements. He explained, "If there was anything distinctive in the Mormon venture, it was the scale on which the experiment was carried out, the degree of success achieved in the face of overwhelming obstacles, and the intensity of application and continuity of policy over an extended period."<sup>5</sup> Arrington noted that the reason for this difference between Utah's development and others in the West was only the role of central planning by church leaders and organized volunteer cooperation. As noted in the previous chapter, the leadership and vision of church leaders, particularly Brigham Young, provided the organization of capital and labor to construct the St. George Temple and Tabernacle.

In the subsequent decades, however, the Church lost its ability to control economic development in Utah. Previous to the railroad, the Mormon policy of self-sufficiency was important because of the limited access to resources and goods from other parts of the

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<sup>4</sup> Frederick Jackson Turner, "Contributions of the West to American Democracy," in *Frontier and Section*, 89

<sup>5</sup> Leonard Arrington, *Great Basin Kingdom: An Economic History of the Latter-day Saints, 1830-1900* (1958; reprint, Urbana: University of Illinois Press, 2005), 411.

country. When the golden spike was driven into the transcontinental railroad at Promontory Summit in northern Utah, the Mormons found themselves more and more connected to outside America. Mormon exclusionary and self-sufficient economic policies brought the church into direct conflict with the American economic and political systems. Non-Mormon settlers who came to Utah during the decades after the railroad were upset with Mormon economic policies that called for church members to boycott their businesses in favor of Mormon cooperative businesses. Outside forces brought in by the railroad continued to erode Mormon economic policies, leading to the end of the United Orders and many cooperative ventures.

The biggest blow to the church's ability to direct economic development, however, resulted from the government's enforcement of anti-polygamy laws in the 1880s, particularly the Edmunds-Tucker Act of 1887. "The Raid," as it came to be known among the local Mormon population, drove many church leaders, prominent citizens, and a sizable portion of the male population who practiced polygamy into hiding or incarceration. In addition to its effects on the labor force, the Edmunds-Tucker Act directly assaulted the church's assets by confiscating large portions of church property and disbanding church trusts such as the Perpetual Emigrating Company, which had helped fund the immigration of tens of thousands of Mormon converts. Through the seizure of church property, "The Raid" left the church \$300,000 in debt. The indirect results included an unsettled population, a need for aid to families of those who were incarcerated, and a drop in tithing contributions which made the burden of debt much greater and more prolonged.<sup>6</sup>

When the 1890s Depression hit, its effects were felt throughout Utah, including Washington County. After the completion of the public works buildings of the 1870s,

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<sup>6</sup> Arrington, *Great Basin Kingdom*, 400-401.

particularly the Tabernacle and Temple, the people in that region were heavily subsidized by the mining communities in eastern Nevada and Silver Reef, established right in the heart of the county. One of the biggest contributors to the depression was the overproduction of silver throughout the American West during the 1880s. The unreliable silver prices, labor strikes and internal strife led to massive decline at Silver Reef during the 1880s. By 1890 Silver Reef's population, which once boasted of over 1,000, had fallen to only 177 individuals, and within a year all major businesses suspended their operations in the town.<sup>7</sup>

During the 1890s the price of silver plummeted dramatically as demand for silver dropped in the face of higher supplies. In 1890, the Sherman Silver Purchase Act was passed which artificially propped up the price of silver through government purchase. President Grover Cleveland and many others viewed this act as a primary cause of the Panic of 1893. Cleveland urged Congress to repeal the act. Its repeal hastened the plummet of silver prices from eighty-three cents per ounce in 1892 to fifty-four cents per ounce in 1897.<sup>8</sup> The demise of Silver Reef and other mining communities in eastern Nevada had a ripple effect throughout the local economy as the jobs and market those towns provided dried up. The cotton factory, for example, in nearby Washington City had conducted significant trade with the Silver Reef miners. But as the mining activity declined so did the cotton factory, which eventually closed its doors in 1898.<sup>9</sup>

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<sup>7</sup> Andrew Karl Larson, *I Was Called to Dixie: The Virgin River Basin – Unique Experiences in Mormon Pioneering* (Salt Lake City: Deseret News Press, 1961); Census Office, *Report on Population of the United States at the Eleventh Census: Part I* (Washington, D.C.: Government Printing Office, 1895), 344.

<sup>8</sup> Charles Hoffman, *The Depression of the Nineties: An Economic History* (Westport, Connecticut: Greenwood Publishing Corporation, 1970), 64-65, 199-200; Thomas G. Alexander, *Utah, The Right Place* revised and updated edition (Salt Lake City: Gibbs Smith, 2007), 230-231.

<sup>9</sup> Douglas D. Alder and Karl F. Brooks, *A History of Washington County: From Isolation to Destination*, 2<sup>nd</sup> ed. (Springdale, Utah: Zion Natural History Association, 2007), 88.

For Washington County, like most of the arid West, future development was determined by the availability of water resources. Between the 1880s and the first decade of the twentieth century, several public works programs were developed in Washington County to create a steady flow of irrigation water across the desert. Some of these projects were used to strengthen already existing communities such as St. George and Washington.<sup>10</sup> Two other major projects that began in 1893 opened up new areas for settlement, offering a safety valve to communities that were withering under the desert sun. Both the Hurricane Canal and the Enterprise Dam borrowed and expanded on the Turnerian thought of the 1890s that progress could be found in the push to new land. Although the 1890 Census declared the frontier closed, a new door to land was opened through widespread irrigation.<sup>11</sup> Unlike most public works, however, these projects did not provide immediate economic stimulus to the region. They were investment projects pushed by the local populations with the hope that eventually they would find themselves in a more stable situation due to their completion. Though not initiated by the Mormon Church, these projects were modeled from the cooperative irrigation companies the Church established in previous generations.<sup>12</sup> Eventually, however, the Church and its leaders would become involved to a degree in both the Hurricane Canal and the Enterprise Dam. But rather than coordinating these

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<sup>10</sup> In order to prevent the constant repair and replacement of dams that had plagued residents for previous decades, a more permanent dam of the Virgin River was completed just outside the city of Washington in the early 1890s. Later that decade a project to divert water via canals from Cottonwood Spring, on the slopes of Pine Valley Mountain, to St. George was undertaken. For more information on these projects see Larson, *Called to Dixie*, 365-375; Alder and Brooks, *History of Washington County*, 171-175.

<sup>11</sup> Gerald D. Nash, *The Federal Landscape: An Economic History of the Twentieth Century West* (Tucson: University of Arizona Press, 1999), 9.

<sup>12</sup> For more information about early cooperative irrigation companies in Utah see Thomas G. Alexander, "Irrigating the Mormon Heartland: The Operation of the Irrigation Companies in Wasatch Oasis Communities, 1847-1880," *Agriculture History* 76, no. 2 (Spring 2002): 172-187 and Thomas G. Alexander, "Interdependence and Change: Mutual Irrigation Companies in Utah's Wasatch Oasis in an Age of Modernization, 1870-1930," *Utah Historical Quarterly* 71, no. 4 (Fall 2003): 292-314.

projects, as it had the construction of the Temple and Tabernacle, the Church only provided investment capital after local leaders exhausted all other available sources.

The development of irrigation and reclamation projects during this time in Washington County was no coincidence. A push for more widespread irrigation in the West found its way into the national consciousness during the 1890s. Utah, which had always relied on widespread irrigation, was caught in the middle of this national debate. After touring several western states and territories in the 1870s including Utah, President Ulysses S. Grant pushed Congress to pass legislation encouraging greater western development. One result was the Desert Land Act of 1877, which allowed individuals and companies to claim land at \$1.25 per acre for up to 640 acres. The provisions of this act required a down payment of twenty-five cents per acre upon filing for the land with a promise to irrigate the land within three years, upon which the extra dollar per acre payment would be due.<sup>13</sup> Those involved in the planning and construction of the Hurricane Canal and Enterprise Dam relied on the promises of the Desert Land Act to entice potential investors as well as families to settle in the communities they would create.

Some of the first voices calling for an expanded federal role in funding western irrigation development began within the same year the Census Bureau declared the frontier “closed.” Brigadier General Nelson A. Miles, who spent much of his time in the West during the Plains Indian Wars, advocated in 1890, “The enormous amount of money required to place the desert lands in a productive state would have to be furnished by the government, as it would be impossible for the States and territories to complete such a system as in contemplation.”<sup>14</sup> In

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<sup>13</sup> Donald J. Pisani, *To Reclaim a Divided West: Water, Law, and Public Policy, 1848-1902* (Albuquerque: University of New Mexico Press, 1992), 88-89; Donald Worster, *Rivers of Empire: Water, Aridity, and the Growth of the American West* (New York: Oxford University Press, 1985), 103.

<sup>14</sup> Nelson A. Miles, “Our Unwatered Empire,” *The North American Review* 150, no. 400 (March, 1890): 376, also quoted in Worster, *Rivers of Empire*, 139.

1891 the first National Irrigation Congress meetings were held in Salt Lake City. Their mission was to lobby for more government support for large-scale reclamation projects that would open up new lands for development. William Smythe, perhaps the causes' most fervent supporter, believed that in the arid West man could exercise optimal control over the land through irrigation. In 1899, he wrote that irrigation canals protected farmers from drought, while the West's arid climate insured against floods.<sup>15</sup> He continued:

The supreme advantage of irrigation consists not more in the fact that it assures moisture regardless of the weather than in the fact that it makes it possible to apply that moisture just when and just where it is needed...In the arid region there is practically no rain during the growing season. Thus the scientific farmer sends the water from his canal through the little furrows which divide the lines of strawberry plants, but permits the water to go singing past his field of beets.<sup>16</sup>

While, clearly, large-scale irrigation and reclamation efforts did not solve the problems caused from droughts and floods, they certainly lessened their destructive effects, which allowed Smythe's ideas to gain traction. Smythe extended Turner's frontier idea by pushing for more open land through irrigation and reclamation.

Reactions by the federal government toward calls for funding large-scale reclamation projects were, at first, lukewarm, at best. While many western politicians, government officials, and engineers attended the meetings in Salt Lake City, and the subsequent 1893 conference in Los Angeles, they disagreed with regard to what role the government should play and how water rights should be administered.<sup>17</sup> Perhaps the biggest obstacle, however, was the lack of available government funds as a result of the depression. Nevada Congressman Francis Newlands, who spent much of his congressional career pushing for government support of irrigation, lamented

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<sup>15</sup> William E. Smythe, *The Conquest of Arid America*, new and revised edition (New York: The Macmillan Company, 1905), 43-44.

<sup>16</sup>Smythe, *Conquest of Arid America*, 47-48.

<sup>17</sup>Pisani, *Reclaim a Divided West*, 250-1.

that appropriations at the height of the depression were only for “the absolutely necessary expenditures of the government.”<sup>18</sup>

By placing large-scale irrigation into the national debate, the Irrigation Congress began to realize some victories over time. The Carey Act of 1894, sponsored by Wyoming Senator Joseph M. Carey, did not advocate for government funding of irrigation projects, but did offer grants of federal land to the states for irrigation development.<sup>19</sup> The groundwork laid by the Irrigation Congress and western politicians eventually culminated in passage of the 1902 National Reclamation Act, authored by Nevada Rep. Francis Newlands. The Newlands Act, which authorized federal funding for several reclamation projects in sixteen western states including Utah, combined with subsequent acts greatly expanded the government’s role in controlling western irrigation.<sup>20</sup> Perhaps it was this national debate near the turn of the century that led Washington County residents seeking to change their fortunes to turn their attention to large-scale reclamation and irrigation projects as a solution.

The concept of irrigation was not a novel thought for improving Utah during the Depression of the 1890s. Rather, irrigation was a necessity throughout Utah’s modern history. When the Mormons arrived in the Salt Lake Valley in July 1847, their first task was to dam City Creek and begin construction of irrigation canals in order to plant crops for the short growing season. These pioneers learned irrigation methods through observation and study, including Mormon Battalion members who marched through Mexico and watched Native and Mexican populations watering the parched deserts there. The development and control of these projects

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<sup>18</sup>Pisani, *Reclaim a Divided West*, 248.

<sup>19</sup>Pisani, *Reclaim a Divided West*, 251-265.

<sup>20</sup>Worster, *Rivers of Empire*, 130-31.

were done through cooperative irrigation companies regulated by local officials.<sup>21</sup> The Mormons made no small contribution to the West's water history, as they developed wide-scale irrigation as part of the base infrastructure for establishing any new settlement. William Smyth acknowledged that irrigation had existed in some form throughout history, but at the same time believed that any study about irrigating the arid West must begin with the Mormons.<sup>22</sup>

As the Mormons pushed into Washington County, settlement was determined by the availability of large tracts of land and a water source that could be easily diverted onto that land. The Hurricane Valley was one area where the first Anglo explorers and settlers saw potential for development through irrigation. A detachment from John Wesley Powell's surveying expedition visited Hurricane in the spring of 1872. One of the party, Frederick Dellenbaugh, stood at the top of Hurricane Hill on the valley's east side and marveled at sight before him:

As the traveler comes to Hurricane Hill he has before him one of the most extraordinary views in all that region if not in the world. Even the Grand Canyon itself is hardly more wonderful. To the right and below us lay the fair green fields of Toquerville,<sup>23</sup> on the opposite side of the Virgen, and all around was such a labyrinth of mountains, canyons, cliffs, hills, valley, rocks and ravines as fairly to make one's head swim. I think that perhaps, of all the views I have seen in the West, this was one of the weirdest and wildest.<sup>24</sup>

The valley sits around twenty miles east of St. George and is bordered on the east and south by basalt-covered hills and sandstone mesas. Early Mormon explorers who visited the valley in

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<sup>21</sup> Alexander, *Utah, The Right Place*, 98; Alexander, "Interdependence and Change," 292-293.

<sup>22</sup>Smythe, *Conquest of Arid America*, 51.

<sup>23</sup> Toquerville was a small Mormon village established in 1858 along Ash Creek on the northern end of the Hurricane Valley.

<sup>24</sup>Quoted in Herbert E. Gregory, ed., "Journal of Stephen Vandiver Jones," *Utah Historical Quarterly* vols. 16-17 (1948-49): 115-166, fn. 98. In 1908, Dellenbaugh made a similar retrospective account of visiting the Hurricane Valley in 1872. Frederick S. Dellenbaugh, *A Canyon Voyage: The Narrative of the Second Powell Expedition down the Green-Colorado River from Wyoming, and the Explorations on Land, in the Years 1871 and 1872* (1908; repr., Tucson: The University of Arizona Press, 1996)190-91.



1849 through 1854 observed local Paiutes engaging in irrigating their fields of corn, potatoes and squash along canals as long as half a mile.<sup>25</sup> Local histories claim that the first explorations of the feasibility of developing the Hurricane Valley occurred in the 1860s, shortly after the establishment of St. George. According to tradition, Erastus Snow, along with local surveyor John M. Macfarlane explored the region to determine the possibility of irrigating the valley. Ultimately, the two decided irrigation was unfeasible.<sup>26</sup> Others later explored this area and marveled at its potential, but reached the same conclusion as Snow and Macfarlane.

The biggest barrier standing in the way of establishing a settlement in the Hurricane Valley was from the only potential source of water, the Virgin River. The Virgin begins in the high elevations of the Markagunt Plateau around 9,500 feet above sea level. Along the river's 160-mile journey the elevation drops 7,800 feet at a rate of about 48 feet per mile before dumping into the Colorado River at a confluence now beneath Lake Mead. But it is from its headwaters to its approach to the Hurricane Valley that the river's nature and geography are at its most dramatic. The north and east forks of the Virgin River drop at a rate of 71 feet per mile as they carve through the narrow slot canyons that make up Zion National Park before converging into one river near the town of Rockville. At that point the Virgin River levels off somewhat before once again dropping through a narrow slot canyon that extends through the Hurricane Bench and widening through a deep gorge as it passes through the valley before reaching the

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<sup>25</sup> William B. Smart and Donna T. Smart, eds., *Over the Rim: The Parley P. Pratt Exploring Expedition to Southern Utah, 1849-1850* (Logan: Utah State University Press, 1999), 92-93; Juanita Brooks, ed., *Journal of the Southern Indian Mission: Diary of Thomas D. Brown* (Logan: Utah State University Press, 1972), 49.

<sup>26</sup> Etta H. Spendlove, *Memories and Experiences of James Jepson, Jr.* copied by Floyd L. Eisenhour (1937), L. Tom Perry Special Collections, Brigham Young University, 28; Larson, *Called to Dixie*, 383.

town of Washington.<sup>27</sup> It was probably the sight of the deep gorge with the flowing waters at its bottom that discouraged Snow and Macfarlane.

The realization that the water of Virgin River would need to flow uphill and over a steep cliff to irrigate the valley is what pushed Mormon colonizers to establish communities along the relatively level upper Virgin River Basin between the confluence of the north and east forks and the spot where the river begins to drop into the slot canyons through the Hurricane Bench.<sup>28</sup> Life in these communities, however, was a constant struggle from the start. The only arable land available was along the flood plains of the Virgin, and as a result the people were at the mercy of the river's temperamental mood swings. While the average flow of the Virgin in this region is a gentle 100 cubic feet per second, the river can range between 20 cubic feet per second during times of drought and 9,150 cubic feet per second during a flash flood.<sup>29</sup> Thunderstorms building up near the Virgin's headwaters can send devastating flash floods funneling through the Zion Canyon Narrows, carrying with it large amounts of debris, that can destroy anything in its path with little to no warning. James Jepson, Jr., an early resident of Virgin City, described how the river's erratic behavior frustrated the early settlers on the upper Virgin:

If the Virgin had been faithful to her sacred name, she would have mothered and nourished them, but she would give promise of protection while the farmers planted and labored, but when the crop was ready to harvest, only too often the majestic Virgin forgot her promise.

Jepson described how settlers on the upper Virgin could only plant crops on sand bars along the flood plain that could not be any larger than three acres in size, hardly enough for even

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<sup>27</sup> Robert L. Eves, *Water, Rock, & Time: The Geologic Story of Zion National Park* (Springdale, Utah: Zion Natural History Association, 2005), 58; W. Paul Reeve, *A Little Oasis in the Desert: Community Building in Hurricane, Utah, 1860-1930* (Salt Lake City: Whirlwind Press, 1996), 4.

<sup>28</sup> Reeve, *Little Oasis*, 4.

<sup>29</sup> Eves, *Water, Rock, & Time*, 58-60.

subsistence farming. Sudden flash floods would wipe out all these small farms and fill the irrigation ditches with mud and debris. To add to their frustration, by the time these farmers finished cleaning out their ditches for water to reach their fields, the hot desert sun had already left their crops withered and dead.<sup>30</sup>

Shortly after the first settlers arrived on the upper Virgin they were introduced to the full fury of the Virgin's destructive tantrums. Accounts recorded in biblical terms claimed that in the winter of 1861 and 1862 it rained for 40 days throughout Washington County. Eventually the heavy rains resulted in flood waters roaring through the narrow valley. One of those settlements, aptly named Adventure, lay directly in the path of the flood as it tore through small farms, a blacksmith shop, and sent many possessions down river. The audacious pioneers of Adventure had to flee to higher ground to the current town site of Rockville.<sup>31</sup> Another settlement established by Chapman Duncan also retreated to higher ground to a place that came to be known simply as Duncans Retreat.<sup>32</sup> The home of Nathan C. Tenney at Grafton was washed away. Shortly after, Tenney's wife Olive gave birth to a son which they named Marvelous Flood Tenney. At Virgin, James Jepson explained that there was "little left of the first farms." James Bleak recorded a silver lining in the rain clouds: "There were a number of hairbreadth escapes—but no lives were lost." Though these settlers escaped with their lives, they were left with little else as nearly every settlement on the upper Virgin suffered heavy damage.<sup>33</sup>

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<sup>30</sup>Spendlove, *Memories and Experiences*, 27.

<sup>31</sup> James G. Bleak, "Annals of the Southern Utah Mission, circa 1898-1907," manuscript, 113-14, box 1, folder 1, Church History Library, Church of Jesus Christ of Latter-day Saints, Salt Lake City, Utah (herein after CHL); New Harmony Ward, General Minutes, Vol. 2: 7, CHL; John W. Van Cott, *Utah Place Names: A Comprehensive Guide to the Origins of Geographic Names* (Salt Lake City: University of Utah Press, 1990), 2, 320.

<sup>32</sup>Van Cott, *Utah Place Names*, 119.

<sup>33</sup> Bleak, "Annals," 114, box 1, folder 1, CHL; Angus M. Woodbury, "A History of Southern Utah and Its National Parks," *Utah Historical Quarterly* 12, nos. 3-4 (1944): 151; Spendlove, *Memories and Experiences*, 39-40.

The frustration of trying to tame the Virgin River in order to grow enough food to survive took a heavy toll on these first settlers, eventually causing many to move away. An 1890 census report on irrigation in the area recorded:

The area of good land, however, is comparatively limited, and the unregulated water supply barely sufficient for the present area under cultivation...On account of the erratic character of the streams the expense of maintaining the ditches and diverting water into them has been very great. The head works are frequently washed away, and several ditch owners state that they scarcely ever take water into their ditches at the same place two years in succession.<sup>34</sup>

Historian Paul Reeve studied the census records of the original settlers of the upper Virgin and discovered that a large percentage of the families had abandoned the region in the decades following their settlement. Reeve identified 98 families living in five communities along the upper Virgin in 1870. By 1880, only 51 of those families had at least one male member still living in the same area. By 1900, that number had dropped by more than half to 23. While these communities had some new families move into the region by 1880, by 1900 many of these new families had abandoned the region.<sup>35</sup> Reeve noted that those who did abandon the upper Virgin generally left Washington County altogether. Reeve concluded that those who did stay did so as a result of their religious devotion to their call to colonize from Brigham Young and other Mormon leaders. Reeve ruled out economic factors since those “persisters” were no better off in terms of material wealth than those who abandoned the communities.<sup>36</sup> Despite those who did stay, the attrition was too much for some communities – Mountain Dell,

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<sup>34</sup> U. S. Census Bureau, *Report on Agriculture by Irrigation in the Western Part of the United States at the Eleventh Census: 1890* (Washington, D.C.: Government Printing Office, 1894), 234.

<sup>35</sup> Reeve studied the 1870 Census for the communities of Virgin City, Grafton, Rockville, Shunesburg and Duncans Retreat comparing how many families “persisted” in the region in subsequent censuses based on whether one male member of the family could be found, since they are readily identifiable through the same last name. He also added Springdale when studying the 1880 Census. For my purposes I have only included Reeve’s analysis of those who persisted from the 1870 Census. Reeve, *Little Oasis*, 17, 24 n17.

<sup>36</sup> Reeve, *Little Oasis*, 17-19.

DuncansRetreat, Shunesburg, and Grafton soon joined Adventure in the following decades as ghost towns.

Whatever devotion caused those “persisters” to stay, their limits were tested and they often looked to the Hurricane Valley as a possible location for resettlement. James Jepson explained:

As the people from these towns up the river, Springdale, Rockville, and Virgin, went to conference in St. George, they passed the Hurricane Flat, the largest and richest piece of land in Utah’s Dixie. Always they looked at it with longing eyes, If they could bring water out of the Virgin River to this flat. Inasmuch as most of the river bank was solid limestone cliff and the river bed so low, the work of building a canal would be stupendous.<sup>37</sup>

In 1874, Jepson escorted John W. Young, Brigham Young’s son, along Hurricane Hill. Young also had longing eyes for the Hurricane Valley and had a new idea that might bring water to it. If the Virgin’s water could not be brought up from the gorge at the bottom of the valley, maybe it could be diverted before it made its trip down the Hurricane Bench and conveyed in a canal built into the hillside. Jepson led Young to the lowest spot on top of Hurricane Hill where they believed they could draw the water, but after investigation with a leveling instrument, they came to the same conclusion as Snow and Macfarlane in the previous decade – the canal was too impractical to build.<sup>38</sup>

But over the next two decades, the situation along the upper Virgin grew even more desperate. Two more large floods ravaged the area in the 1880s, one in the summer of 1885 and another at the close of the decade in December 1889. The latter was considered by some of the established settlers further down the river to be even bigger than the flood of 1861-62. Both these floods took out bridges, dams, and canals all along the Virgin River from Orderville, just below

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<sup>37</sup>Spendlove, *Memories and Experiences*, 27-28.

<sup>38</sup>Larson, *Called to Dixie*, 383-84.

the headwaters of the east fork, all the way down to Bunkerville, Nevada, 115 miles downstream.<sup>39</sup> By 1890, Rockville reportedly had lost half of its land to erosion since its settlement in 1862, and in order to provide enough irrigation water the settlers had to make dam and ditch building an annual occurrence.<sup>40</sup> The floods combined with some of the already detailed effects that led to the 1890s Depression in Washington County would have forced three-quarters of the original upper Virgin residents to seek new homes elsewhere by the end of the decade, and those who persisted desperately needed to find a way to survive in the quickly unraveling settlements.<sup>41</sup>

Though he initially failed to come up with a practical way of drawing the Virgin water onto the thirsty Hurricane Valley, James Jepson continued to cultivate the idea of building a canal along Hurricane Hill. Perhaps the combined economic and environmental circumstances of the 1890s made him seek more earnestly for a dam site and a practical place to build a canal. As he returned home from a trip to Beaver one spring day, he stopped for dinner at the home of John Steele in Toquerville. Steele had recently returned from the Hurricane Bench where he had some of his horses grazing and told Jepson that he too believed such a canal could be built. Jepson confessed that he not only had thought about the idea for years, but had already picked out the dam site. Jepson led Steele to a location just two and half miles southwest of Virgin town. The two had to leave their horses where the river entered a narrow box canyon and climb down to a tight location where perpendicular cliffs of solid white limestone rose above the river bed. This location was far more ideal than further down river where the cliffs began to break up

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<sup>39</sup>Larson, *Called to Dixie*, 362-68; Alder and Brooks, *History of Washington County*, 85-86.

<sup>40</sup>Bleak, "Annals," 28-29, box 2, folder 2r.

<sup>41</sup>Reeve, *Little Oasis*, 17. Among the 98 families Reeve identified living on the upper Virgin in 1870, only 23 remained by 1900.

into gravel slopes. The steep stone cliffs and narrow canyon made construction of the dam a reasonable possibility.<sup>42</sup>

Public enthusiasm for the canal was soon raised by both Jepson and Steele in the nearby communities. By the summer of 1893, residents began organizing the Hurricane Canal Company. Jepson was elected as the canal company's president. In addition to the election of other officers to two-year terms, a constitution and by-laws were soon drawn up.<sup>43</sup>

Though the company issued stock and elected a board of directors, it closely resembled an early Mormon cooperative organization. Stockholders who bought into the new Hurricane Canal Company consisted primarily of the beleaguered settlers of the upper Virgin and the nearby town of Toquerville, just north of the planned Hurricane settlement. Investment capital was rare, as were most resources in those early desert communities. As such, special arrangements were made for the stock to be purchased with labor rather than cash. These stockholders desired a stake in the new community that would be established on the Hurricane Bench. Each share consisted of water rights for an acre of land at a base price of \$40 per share. The company, however, limited each stockholder to only 20 shares, so as to prevent speculators and encourage those investing in the company to be a source of settlers ready to build the new town.<sup>44</sup> The Hurricane Canal Company's organization was a hybrid of capitalistic methods of organizing a business, issuing stock, electing board officers, and Mormon cooperative practices

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<sup>42</sup>Spendlove, *Memories and Experiences*, 28-29.

<sup>43</sup>Spendlove, *Memories and Experiences*, 29.

<sup>44</sup>Reeve, *Little Oasis*, 30-31; Alice Gubler Stratton, *The Story of the Hurricane Canal* (repr., La Verkin: Rio Virgin Press, 1985), 5.

of organizing labor and encouraging community building, while discouraging speculative investment.<sup>45</sup>

The first item of business for the emerging company was surveying the dam site and a route for the canal. To conduct a survey of the canal, the company hired Isaac Macfarlane, the son of John Macfarlane who first surveyed the possibility of a canal with Erastus Snow. The company also issued a three cent per share assessment to all stock holders in order to pay for the survey.<sup>46</sup> Macfarlane determined that the dam at the site picked out by Jepson would need to be fifteen feet high. The canal itself would run seven and a half miles from the dam site, winding in a serpentine manner as it clung to the hill sides, running through tunnels and flumes built across small ravines. The initial cost estimate was \$53,000, excluding the dam and flumes; though, most of the cost was worked out in labor assessments from the stockholders.<sup>47</sup>

The return on the stockholders' and laborers' investment was a long time coming as many obstacles slowed the construction's progress. The first obstacle was the restricted access to the worksite. There was no road or trail to take supplies to the dam site; therefore, tools and supplies needed to be lowered from the top of the narrow canyon. Workers all along the canal route had to carry their personal supplies on foot. One of the workers, Morris Wilson, Jr., described the inconvenient conditions the workers faced until an access road was built to the canyon. Wilson noted that during the first winter workers lived in lean-to tents made of wagon covers and needed to gather driftwood for their cooking fires. Once an access road was finished

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<sup>45</sup>Reeve, *Little Oasis*, 40.

<sup>46</sup> Wes & Lois Larsen, eds., *Martin Slack's Account Book for the Hurricane Canal, 1893* (Hurricane: Hurricane Chapter, Sons of Utah Pioneers, 2001), 2-5.

<sup>47</sup> Reeve, *Little Oasis*, 30-32.



in 1895, the conditions improved slightly as workers could convert their wagon boxes into a shelter.<sup>48</sup>

Working conditions aside, the biggest hindrance to the canal was the economic conditions that motivated building the canal in the first place.<sup>49</sup> The depression made procuring the needed materials difficult. Wilson, for example, lamented the lack of good tools and access to supplies. Historian Karl Larson noted that the most common tools were shovels, picks, wheelbarrows, crowbars and hand-driven drills. Dynamite was used whenever they were fortunate enough to acquire some. Thomas Isom recalled having to pick out any dynamite that had misfired, adding, “We had to do this, dangerous as it was; we could not afford to lose a single stick.”<sup>50</sup>

The difficult economy also put a strain on the labor force as workers had to take care of their immediate needs before working on the canal. Jepson explained that progress on the canal lagged since it was necessary for the men to work on their farms in the summer, leaving only the winter months for the canal’s construction.<sup>51</sup> Annie Crawford, a resident of Springdale, remembered her brothers working “on the farm or any other job in the summer that offered a little cash to buy blasting materials for the coming winter.”<sup>52</sup> One source of labor came as a result of the closing mines at Silver Reef. Though the canal company offered no wages, the displaced miners seemed happy to receive their room and board for the winter and a horse and

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<sup>48</sup> Morris Wilson, Jr., interview by Karl Larson, May 1946, quoted in Larson, *Called to Dixie*, 389-390; Reeve, *Little Oasis*, 32.

<sup>49</sup> Reeve, *Little Oasis*, 37.

<sup>50</sup> Wilson, interview and Thomas Isom, interview by Karl Larson, 29 May 1946, quoted in Larson, *Called to Dixie*, 390-91.

<sup>51</sup> Spendlove, *Memories and Experiences*, 35.

<sup>52</sup> Annie Crawford Isom, statement with no attribution, quoted in Stratton, *Hurricane Canal*, 12.

saddle so they could seek their fortunes elsewhere the following spring.<sup>53</sup> Labor eventually dwindled as many shareholders either abandoned their labor assessments or sold off their stock. When the winter of 1901 came, the work force numbered less than ten.<sup>54</sup>

The lack of progress also caused another problem. The Hurricane Canal Company filed for 2,000 acres of land under the provisions of the Desert Land. Unfortunately, the deadline for providing irrigation on the Hurricane Valley under the terms of the Act expired. The government refunded the Company \$500 of what they had already paid, but they forfeited \$200 in filing fees as well as their right to the land. By this time, however, Utah had become a state and the shareholders were able to reacquire their land by taking advantage of available state trust land grants. This, though, required an additional twenty five cents per acre as a down payment, as well as another additional dollar per acre which was paid on a ten-year payment plan.<sup>55</sup> These additional costs put another strain on the struggling company.

By 1902 the Hurricane Company needed an additional \$20,000 to finish the canal, and it became apparent that it would not be completed unless outside investment was acquired. Shareholders had made pleas to the Mormon Church leaders in 1898, but the Church was involved in its own belt tightening and was in no position to provide assistance. Paul Reeve noted that in the same year the Church did invest in a reclamation project along the Sevier River in Millard County, but that project was under the “direct supervision” of Church leadership, while the Hurricane Canal had “no official church sanction” and was therefore denied any assistance.<sup>56</sup> But in 1902, the Company Board decided to make another appeal to the Church.

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<sup>53</sup> Reeve, *Little Oasis*, 39.

<sup>54</sup> Reeve, *Little Oasis*, 39, 42-43.

<sup>55</sup> Larson, *Called to Dixie*, 393-94; Reeve, *Little Oasis*, 41.

<sup>56</sup> Reeve, *Little Oasis*, 42.

The Hurricane Canal Company did not seek out investment capital from eastern capitalists because they wished to keep out speculators. Also they wanted to maintain complete ownership rights to the land, the canal, and the water it provided. Because the shareholders themselves were Mormon, and shared the same cooperative values, they believed that Church leaders would have no interest in taking away their rights to the land and water.

The board appointed James Jepson to petition the Church for a \$5,000 investment in the Company. Jepson was brought into a meeting of the Church's presiding authorities, the First Presidency and Quorum of the Twelve Apostles. When Church President Joseph F. Smith asked, "Well, brother Jepson, are you prepared for a refusal?" Jepson broke the ice by replying, "No. If I had not faith, I should not have come. When you send your missionaries out into the field you want them with faith," which prompted a laugh from Pres. Smith. Jepson provided Smith and the other leaders present with a brief history of the project and a letter signed by five bishops from the upper Virgin and Toquerville. Smith asked Jepson some pointed questions regarding the health of the company. Smith worried that the Church's investment would still leave them \$15,000 short, but Jepson believed the Church's investment would instill new confidence prompting others to buy stock as well. He also said that the \$5,000 could be used to pay the workers 25 percent in cash, and the other 75 percent would be paid in stock. During the meeting Jepson also explained the concerns of having outside investors owning stock in the company, "I told them that the canal would doubtless be finished whether they bought stock or not, but that it would not belong to the people who should own it." At the end of the meeting, the Church leaders voted unanimously to buy \$5,000 in stock, and sent Jepson home with an official letter announcing the details of the transaction.<sup>57</sup>

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<sup>57</sup>Spendlove, *Memories and Experiences*, 33-34; James Jepson, interview by Karl Larson, 30 May 1946, quoted in Larson, *Called to Dixie*, 396-97.

Jepson's predictions about the Church's investment infusing new confidence in the canal project turned out to be prophetic. Work that had once lagged was suddenly infused with renewed energy and vigor. In February 1904 five men, Robert Stratton, John Humphries, William Wilson, Hen Cornelius, and Richard Isom, went to the dam and for the first time sent water running down the ten-mile-long canal.<sup>58</sup> From that moment the only work remaining was locating and repairing leaks along the canal bed and the flumes. On August 6, 1904, six wagon loads of people came to the Hurricane Valley to witness the first water flow down the canal and on to the dry desert floor, a moment residents on the upper Virgin had dreamed about for four decades, and toiled for over the past eleven years.<sup>59</sup> Jepson estimated that the final cost of the canal was \$65,000, with a vast majority of the cost paid for with cooperative labor.<sup>60</sup>

Though water began to flow down the canal, it would take another two years before the newly christened town of Hurricane could be settled, and only then would shareholders begin to see a return on their investment of labor and means. The Church was one of the first groups to reap the benefits, as they sold their land shares for a \$1,600 profit from their \$5,000 investment.<sup>61</sup> Thomas Hinton was the first to move his family in March 1906 and many others soon followed.<sup>62</sup> When Samuel Isom, the Mormon bishop of Virgin, moved to Hurricane in 1907, James Jepson was called as the new bishop to replace him and was therefore forced to wait longer before realizing the dream he was instrumental in initiating. The Virgin River, whose

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<sup>58</sup> John Humphries, statement with no attribution, quoted in Janice Force DeMille, *Portraits of the Hurricane Pioneers* (Hurricane, Utah: Homestead Publishers, 1976), 132.

<sup>59</sup> Stratton, *Hurricane Canal*, 15.

<sup>60</sup> Spendlove, *Memories and Experiences*, 35; Larson estimates the cost up to 1904 was \$65,000. Larson, *I Was Called to Dixie*, 398n. 43; Richard L. Evans places the number also near \$60,000, with \$50,000 of that from cooperative labor. Richard L. Evans, "When the Water Came to Hurricane," *Improvement Era*, August 1937, 522.

<sup>61</sup> Evans, "When the Water Came," 522.

<sup>62</sup> DeMille, *Portraits*, 118.

destructive force motivated the canal's construction, took one last swipe at Jepson's Virgin home. In February 1910, another flood surged through Virgin, destroying Jepson's field, orchard and irrigation ditches, making it difficult to stay there another year. So on April 15, 1910, Jepson sold his Virgin farm at over a ninety percent loss and finally relocated to Hurricane, for which he always had longing eyes.<sup>63</sup>

While the vast majority of Hurricane's new residents were displaced from the upper Virgin, the new town attracted several other outsiders – greatly enhancing the community's potential. Analyzing the 1910 census, Paul Reeve discovered that 71 percent of Hurricane's residents had relocated from the upper Virgin in order to start new, more stable farms. But in order to build an entirely new town, more than just farmers were needed, and Hurricane provided a great opportunity for outsiders to improve their economic condition. The *Washington County News* in St. George openly promoted the need for many skilled laborers to come to Hurricane.<sup>64</sup> Of the 29 percent who came from outside the upper Virgin, most took up jobs as daily laborers, carpenters, and other jobs necessary for constructing the churches, schools, and other public buildings, as well as homes. Between 1910 and 1920, Hurricane's population nearly tripled.<sup>65</sup> Though the canal took over a decade to build and provided no economic stimulus until completed for the impoverished residents who suffered from the desert climate, destructive flooding, and a depression, the Hurricane Canal proved a worthwhile investment as the new Hurricane city provided greater economic opportunities in a more stable environment.

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<sup>63</sup>Spendlove, *Memories and Experiences*, 32-33, 35-36

<sup>64</sup>*Washington County News*, 23 January 1908, quoted in Reeve, *Little Oasis*, 60.

<sup>65</sup>Reeve, *Little Oasis*, 60-63.

As the Hurricane Canal was being constructed a similar story was also being played out in the northwest corner of the county in what is now Enterprise. This corner of the county appears much different from St. George, and other communities along the Virgin River. Because this area is on the windward side of the Pine Valley Mountains, and inside the rim of the Great Basin, it is not characterized by the same desert landscape and sandstone cliffs found near St. George. The area is greener with native grasses and an abundance of sage brush. The average annual precipitation is about 14.06 inches compared to 8.25 inches at St. George.<sup>66</sup> While the nearly six inches of extra precipitation is significant, the region is still considered arid.

The Old Spanish Trail and first wagon roads to southern California cut through this region and the area was an important stopping point where travelers replenished their livestock with the last available abundant grasses before pushing across the vast Mohave Desert. It was in this area that around 120 California-bound emigrants were slaughtered in the infamous Mountain Meadows Massacre of September 1857.<sup>67</sup> The first Mormon settlers arrived in 1856, the vast majority of whom were sent as missionaries to convert the Paiutes who had called this area home for centuries. Perhaps the most well known of these missionaries, Jacob Hamblin, established a summer ranch on the upper Mountain Meadow Valley. Ranching soon became an important enterprise in the region since the area had plenty of grazing land, but insufficient water for anything more than subsistence farming. A few very small settlements were established at Hamblin—near the site of Jacob Hamblin’s original ranch, Pinto, and Hebron built at the

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<sup>66</sup>Desert Research Institute, Western Regional Climate Center, “Utah Monthly Average Precipitation,” <http://www.wrcc.dri.edu/htmlfiles/ut/ut.ppt.html> (accessed 17 May 2010).

<sup>67</sup> For more information about the Mountain Meadows Massacre see Ronald Walker, Richard E. Turley, Jr., and Glen M. Leonard, *Massacre at Mountain Meadows: An American Tragedy* (New York: Oxford University Press, 2008) and Juanita Brooks, *The Mountain Meadows Massacre* (Stanford, California: Stanford University Press, 1950).

junction of two forks of Shoal Creek.<sup>68</sup> These ranchers found an important market for meat and dairy in the hungry mining camps of eastern Nevada and Silver Reef. Soon, however, overgrazing and water became an impediment for many staying in this area beyond the first generation.

The life of Orson Huntsman typifies many of the struggles of early Hebron residents. In 1867, shortly after the family moved there, Orson's father passed away. That same year, Orson married Mary Ann Terry. Because Hebron offered little sustainable agriculture, Orson worked as a teamster as well as several other jobs in order to augment his young family's meager resources. Huntsman briefly left Hebron in search of greater fortune, but eventually encountered the same discouragement. He relocated his family several times throughout southern Utah, including Gunlock about twenty miles south of Hebron, as well as in Garfield and Emery Counties. Finding their condition no better off, Mary eventually convinced Orson to move back to Hebron so she could be closer to her family.<sup>69</sup> Besides the pull of family, religious devotion also kept Huntsman tied to Hebron. Expressing his feelings, Huntsman wrote:

I do not know why I think so much of old Shoal Creek, unless it is because I was called here with the rest of Fathers family. And my mission is not finished, until I have done something to delevope the country...I have tried very hard to Develope it as much as it is in my power. I can say some one, or, alot of some ones, will make something out of Shoal Creek yet, it is to[o] good to throw away.<sup>70</sup>

As the 1890s Depression approached, Hebron appeared to be economically and literally drying up. As the nearby mining towns dissipated, Hebron lost the major market for their ranches. The water at Shoal Creek also was proving to be an inadequate water source to support

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<sup>68</sup>Van Cott, *Utah Place Names*, 174, 181, 296.

<sup>69</sup> W. Paul Reeve, *A Century of Enterprise: The History of Enterprise, Utah, 1896-1996* (Enterprise, UT: The City of Enterprise,, 1996), 19-21.

<sup>70</sup> Orson W. Huntsman, *Journal, 1849-1931*, 2:191, microfilm of manuscript, Family History Library, Church of Jesus Christ of Latter-day Saints, Salt Lake City.

Hebron's population. Unwilling to accept these circumstances, Huntsman set out to find a way to improve his own situation, believing that there was no future in Hebron in its current circumstances. Huntsman believed that a dam could be built on a tributary of Shoal Creek, in Little Pine Valley only a few miles south of Hebron. Water could then be diverted to a new town downstream to the east.

In the early 1890s, Huntsman began the preliminary work to build the dam, canal and town. Huntsman hired Isaac Macfarlane to survey the dam site and the proposed town site. Macfarlane reported that both sites were ideal. Much as with James Jepson and the Hurricane Canal Company, Huntsman first hoped to get local supporters to invest in his idea. Appealing to the residents to Hebron to embrace the reservoir and new town, Huntsman received an unexpected reaction when the residents of Hebron opposed the plan. Even Hebron's bishop and Orson Huntsman's father-in-law, Thomas Terry, believed it to be a fool-hardy idea.<sup>71</sup>

Undeterred by the negative reaction from Hebron, Huntsman began "preaching reservoir" throughout southern Utah and eastern Nevada in hopes of finding investors. Eventually, Huntsman did find some important and influential supporters in the St. George Mormon Stake President Daniel D. McArthur, as well as his counselor, who also happened to be the mayor of St. George, Anthony W. Ivins. These men encouraged Huntsman to press forward with his idea, and organized a committee to assist him.

Over the next year, this committee began drafting a prospectus that would be circulated to entice potential investors. The prospectus included an estimate of the project as well as its costs. The reservoir would be about one mile long by a half mile wide, with an average depth of 45 feet. The dam would be 80 feet tall, at the bottom it would be 66 feet long by 20 feet, and 164

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<sup>71</sup> Reeve, *Century of Enterprise*, 37-39; Brooks and Alder, *History of Washington County*, 176-177.



feet long by 8 feet at the top. Also a bank of earth 160 feet wide with a sloping rate of 24 inches per foot would be placed at the bottom to reinforce the entire structure. An eight mile long canal would divert water from the natural channel of Shoal Creek to the new town site. The cost for the entire project would be \$31,861.40. The prospectus promised that new titles to land filed under the Desert Act “shall be shared by all who assist in carrying on the enterprise to a successful termination.” The depression, however, was beginning to set into the region and there were few investors available for courting.<sup>72</sup>

Almost a year to the day after Huntsman gained the support of St. George leaders, another meeting was held in the basement of the St. George Tabernacle. The meeting lasted two days as a large crowd gathered to organize themselves into a company. The first item of business, according to Huntsman, was to decide on a name for the company and the town they were organizing. Huntsman put forth the name Enterprise, “on the account of the great Enterprise that was about to be under taken by such a very few poor people.”<sup>73</sup> The company then drafted articles of incorporation, including the election of officers, which shareholders officially adopted on October 11, 1893. The man first appointed president was James Andrus, a bishop in St. George. Other officers included George M. Burgess, from Pine Valley; George Holt, who owned a ranch near where the new town would be built; Isaac Macfarlane and Thomas Judd, both from St. George; Milton L. Lee of Panaca, Nevada; and Orson Huntsman. The capital stock was initially valued at \$40,000, which would more than cover the estimated cost of construction. The capital stock was separated out into 4,000 shares at a par value of \$10 per share. The capital, however, that was raised from the original shareholders only amounted to

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<sup>72</sup> A typescript of the prospectus is found in Reeve, *Century of Enterprise*, 42-43.

<sup>73</sup> Huntsman, *Journal*, 2:165.

\$1,350, “three hundred dollars of said amount having been paid in labor & material for building of Reservoir & the balance has been taken in personal notes of the stockholders.”<sup>74</sup>

On October 12, after finishing work in St. George on behalf of the company, Huntsman immediately went home to help construct a lime kiln and a road to haul the lime to the dam site. By the end of the month workers were preparing the foundation of the dam itself. In St. George, some saw the dam as a work opportunity when few were found. Anson Perry Winsor, one of the original stockholders, hired two transients in St. George seeking jobs, Chris Ammon, who became the chief mason over the dam’s sixteen-year construction, and John Smith, who worked for a few years mixing mortar. Within a few months after construction started, workers were able to complete a 180-foot diversion tunnel.<sup>75</sup>

Much like the Hurricane Canal, work on the Enterprise Dam was sporadic as the men could only work when other priorities did not take precedence. Because there was some monetary capital invested in the dam, wages were available, but they were meager at best. Stockholder assessments to raise more capital were often delinquent, despite only a small portion being required in cash, while the rest was to be paid in labor. Workers also had to work in brief periods in the fall, as they would find spring and summer jobs.<sup>76</sup>

But unlike the Hurricane Canal, the Enterprise Company had an additional battle with Hebron residents over water rights. The Hurricane Canal enjoyed relatively universal cooperation among the upper Virgin River residents who hoped to one day make the new town a stable new home. The residents of Hebron, however, stubbornly clung on to their town believing

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<sup>74</sup> Huntsman, *Journal*, 1:43-47, 2:165-166. Huntsman transcribed a copy of the original articles of incorporation and many other company records in his journals.

<sup>75</sup> Huntsman, *Journal*, 2:169-170; Reeve, *Century of Enterprise*, 52-53.

<sup>76</sup> Reeve, *Century of Enterprise*, 48, 52.

it could somehow be revived. Ironically, George Holt, who continually served as an officer of the Enterprise Company, was called to replace Thomas Terry as the Hebron bishop. In this unique position Holt sought to represent the best interests of Hebron residents, who were worried that Enterprise would steal their rights to Shoal Creek. Hebron residents even proposed building their own canal and reservoir in competition with the Enterprise Company in order to protect their rights. Huntsman wanted Stake President Daniel McArthur to sanction Bishop Holt in giving a Church directive for Hebron residents to move to Enterprise. Though McArthur was an ardent supporter of the Enterprise project, he balked at getting the Church involved in the dispute. At a stockholder's meeting held on June 25, 1895, Holt insisted something be done to protect the water rights. George Burgess offered a solution where the Hebron Canal Company procured shares in the Enterprise Company which permitted them to take out up to five percent of the water from the Enterprise Reservoir.<sup>77</sup>

In addition to the battle for water rights, 1895 proved to be a very difficult year for the Enterprise Company. A flood from the spring run off shaved part of the completed portion on the top of the dam. However, Huntsman was encouraged as the rock wall and diversion tunnel held.<sup>78</sup> Also, at the request of the stockholders Macfarlane was called on again to survey another town site for which lots were soon drawn. But as fall came, labor shortages caused work on the dam to be shut down at least twice.<sup>79</sup> The next few years proved to be more of the same as the depression forced many to seek other employment. Some went to the mining camps in Nevada and even Huntsman had to work odd jobs instead of working on the dam.

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<sup>77</sup> Huntsman, Journal, 1:51-52, 2:186; Reeve, *Century of Enterprise*, 55-57.

<sup>78</sup> Huntsman, Journal, 2:189.

<sup>79</sup> Huntsman, Journal, 2:192-93; Reeve, *Century of Enterprise*, 60-61.

As the new century dawned, a sudden shift in the earth caused the Hebron residents to embrace the Enterprise project. Huntsman recorded that at noon on November 17, 1902, a severe earthquake hit Hebron.<sup>80</sup> Most of the houses and other buildings were built of brick and stone and as a result were left severely damaged by the earthquake and its several aftershocks. The town that the residents had stubbornly clung to in the face of great adversity, depression, and water shortfalls was now reduced to rubble. Hebron's residents had no other choice but to abandon their town. After negotiating a price for their water rights, they were forced to cast their lot with Enterprise.

The new influx of support from Hebron did little to push the project forward. In fact work on the dam seemed to be going backwards. In 1901 a large flood tore through ten feet of the stone dam causing \$3,000 in damage. In 1902, at the same time the Hurricane Canal Company realized it had reached the limit of what cooperative labor could achieve, the Enterprise Reservoir and Canal Company came to the same realization that to have any hope of finishing they needed to attract investment outside of Washington County. The company board reached out to capitalists and to the Utah state government. While there was interest from both groups, nothing could be arranged that would allow the company to finish the dam and maintain ownership rights to their land. The Enterprise Company sought aid from Mormon leaders in Salt Lake City, just as James Jepson had on behalf of the Hurricane Canal Company. Around this time, shareholders voted to raise their capital stock to \$57,500, apparently so the Church could buy some shares.<sup>81</sup>

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<sup>80</sup> Huntsman, *Journal*, vol. 3, 17 November 1902. Because there is no pagination in volume 3 of Huntsman's journal, the dates are given as a reference.

<sup>81</sup> Reeve, *Century of Enterprise*, 64-67.

Just as the Hurricane Company had sought Church investment because they wanted to maintain local ownership, the Enterprise Company was unwilling to cede ownership to any outside interests. Early in 1908, the company sent George Holt to Salt Lake to file on all the water rights of Shoal Creek so, according to Huntsman, “no other company, or that no individual could come in and take any of the water that rightfully b[e]longs to us, aw[a]y from us.”<sup>82</sup> A month later the company borrowed \$10,000 for work on the dam.<sup>83</sup>

While the Enterprise Company struggled to find capitalists willing to invest in their project, another capitalist venture threatened to undercut them while they stood on the cusp of finishing in 1909. A group of wealthy investors from Salt Lake City made plans to build a new city on 20,000 acres of land in the Newcastle valley just over the northern border of Washington County from Enterprise. The Newcastle idea was simply a for-profit capitalist venture. Newcastle’s planners from Salt Lake City had grand schemes which included opening up 20,000 new acres for farming and establishing a new town that would include a grand hotel, railroad extension, and street cars. The Newcastle Company hoped to be able to pay for their new reservoir by filing for federal funds under the Newlands Act. Several potential outside investors were brought in by the company by chauffeured limousines once the hotel was completed. Before their new reservoir could be built to supply this proposed town site, the Newcastle Company sought to secure a significant amount of water rights from Enterprise by financing the rest of the dam, thereby securing the rights equal to the percentage of the portion of the reservoir they completed.<sup>84</sup>

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<sup>82</sup> Huntsman, *Journal*, vol. 3, 1 February 1908.

<sup>83</sup> Huntsman, *Journal*, vol. 3, 11 March 1908.

<sup>84</sup> Huntsman, *Journal*, vol. 3, 20 June 1908, 7 March 1909; Reeve, *Century of Enterprise*, 68-69; Alder and Brooks, *History of Washington County*, 189-190.

The loss of these rights would put the city of Enterprise in jeopardy. Huntsman recorded, “There is much agitation about the Reclamation Company coming to take our reservoir from us. We are all ready for them, come on, we will help you.”<sup>85</sup> This threat was enough to galvanize Enterprise in an effort to fend off the Newcastle Company and finish their dam. Anthony Ivins, who was one of the first supporters for the Enterprise project, was appointed a member of the Mormon Church’s Quorum of the Twelve Apostles in 1907 and moved to Salt Lake City to fulfill his new assignment. Ivins used his position of influence and his wealth to fight off the Newcastle threat and provide the capital necessary to complete the dam and canal. Ivins personally invested \$7,500 in cash for which he received \$10,000 in capital stock. The efforts of the Enterprise Company and Ivins were ultimately successful, and the Newcastle project struggled to build their grand new settlement. Though they did build a reservoir, the porous soil failed to reclaim enough water for Newcastle Company’s lofty plans to be achieved.<sup>86</sup> The cash Ivins provided, along with the threat of losing some of the water rights for which Enterprise toiled 16 years, was enough motivation to complete the work on the dam by the end of 1909.<sup>87</sup>

A crowd of about 200 including the residents of Enterprise, local Paiutes, and Mormon Apostles Anthony Ivins and Hyrum M. Smith were on hand for a celebration held to mark the finish of the stone masonry and dedication of the dam on October 30, 1909. The two Mormon leaders, along with George A. Holt, chief Mason Chris Ammon and Orson Huntsman gave speeches to mark the occasion.<sup>88</sup> The remaining weeks the finishing touches were made on the earthen bank securing the structure. When the work was completed on December 22, Huntsman

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<sup>85</sup> Huntsman, Journal, vol. 3, 7-9 March, 1909.

<sup>86</sup> Alder and Brooks, *History of Washington County*, 190-91.

<sup>87</sup> Reeve, *Century of Enterprise*, 68-76; Huntsman, Journal, vol. 3, 31 July 1909.

<sup>88</sup> Huntsman, Journal, vol. 3, 30 October 1909; Reeve, *Century of Enterprise*, 76.

unceremoniously took down his campsite where he lived while he worked on the dam site, and in the middle of a snow storm went back to his home in the city of Enterprise.<sup>89</sup> The final cost was estimated to be around \$75,000, with labor making up most of the cost.<sup>90</sup>

Although construction was not completed until 1909, residents began moving into Enterprise just before the turn of the century, and the town grew to a modest 350 residents by 1910, most of them earthquake refugees from Hebron. The new town resembled less the quick influx of industry its name suggested than did Hurricane. Rather, according to Reeve, Enterprise seemed more to follow the pattern of frontier settlers struggling to tame the wild country prior to 1890 described by Frederick Jackson Turner.<sup>91</sup> Rather than moving into the town, many instead opted to establish larger ranches under the Homestead Act. Between 1910 and 1920, the population of Enterprise nearly doubled to a still modest 608 residents.<sup>92</sup> Overall, life in Enterprise continued in much the same way it had in Hebron and the surrounding region. Ranching continued to be an important industry, though irrigation did improve somewhat as the reservoir provided a more dependable source of water. With new improvements in the town's second decade such as culinary water, telephone and electricity, Reeve concluded, "In the end, Enterprise leaders created a viable social order that ensured the town's permanence while providing a solid foundation for future development."<sup>93</sup> Without the reservoir that stability was unlikely to have been created.

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<sup>89</sup> Huntsman, *Journal*, vol. 3, 22 December 1909.

<sup>90</sup> Reeve, *Century of Enterprise*, 76.

<sup>91</sup> Reeve, *Century of Enterprise*, 85-86.

<sup>92</sup> Reeve, *Century of Enterprise*, 122.

<sup>93</sup> Reeve, *Century of Enterprise*, 123.

In addition to two new communities for settlement, the result of the Hurricane Canal's 2,000 new acres of irrigated land and Enterprise's proposed 5,415 acres opened up potentially 7,415 new acres of arable land through irrigation.<sup>94</sup> This new acreage provided a significant increase to the overall irrigated areas of Washington County. Only 2,251 acres were irrigated in Washington County in 1890, before these two projects began.<sup>95</sup> By the time these projects were completed in 1909, the total amount of irrigated acreage increased to 18,086, with the potential to irrigate a total of 24,662 acres, around a ten fold increase from 1890. Irrigated lands accounted for 95 percent of all farmland in Washington County; therefore these projects were vital to the region's agricultural production.<sup>96</sup> Upon their completion these two projects accounted for a third of the 22,411 acres of new potential irrigated land and 30 percent of all potentially irrigated land in all of Washington County.

The building of the Hurricane Canal and Enterprise Reservoir illustrate the great transition that took place near the turn of the century. Both projects show how the people of Washington County clung to the Turnerian notion that progress could only be achieved through available land. Though the census had declared no distinguishable frontier line, irrigation continued to make new lands available for settlement. Economic circumstances both nationally and in Utah also forced residents to find new ways to finance the public works that they hoped would eventually spur greater economic stability. The depression became a major motivating factor to initiate these projects, but also became a major stumbling block to providing the capital

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<sup>94</sup>Reeve, *Little Oasis*, 41, 61; Reeve, *Century of Enterprise*, 42.

<sup>95</sup> U. S. Census Bureau, *Agriculture by Irrigation*, 222.

<sup>96</sup> U. S. Census Bureau, *Thirteenth Census of the United States Taken in the Year 1910, Volume VII: Agriculture 1909 and 1910, Reports by States, with Statistics of Counties: Nebraska-Wyoming, Alaska, Hawaii, and Porto Rico* (Washington, D.C.: Government Printing Office, 1913), 749.



to complete them and as a result these projects lagged on long after the depression ended until they were completed.

Prior to this time, projects like this in Utah would be initiated by the Mormon Church, which had both the capital and authority to organize resources and labor. However the government's confiscation of Church property followed by the depression left the Church unable to finance and administer such large-scale public works. Organizers of these projects incorporated capitalistic principles of organizing companies, electing officers and selling investment stock in order to finance and direct these projects. Despite becoming more capitalistic with their methods, these projects still involved many traditional Mormon cooperative ideals. The companies' boards sought shareholders from local populations and made arrangements for stock to be purchased with labor as well as cash. In this way, local cooperative labor accounted for most of the cost of these projects. The companies were wary about courting investment from outside capitalists because they wanted to avoid speculators. They also wanted the new towns these irrigation projects established to be settled by local laborers, with the land and the water rights controlled locally rather than by outsiders who would exploit them for their own profit and interests. Eventually, when outside capital was necessary, the Mormon Church and its leaders did become involved in both projects. The Church, however, did not appear to have any interest in the administration of these projects beyond the hope of receiving a return on their investment.

Both the Hurricane Canal and Enterprise Reservoir are examples of a public works program that was more investment than immediate stimulus. While most public works provide a benefit to the community long after they are built, many are initiated with the hope of providing an immediate stimulus during their construction. The 1890s Depression made the long-term

benefits provided only after completion the only motivating factor of construction for these reclamation projects. When the Hurricane Canal was completed and the town of Hurricane was established in 1906, there was almost an immediate economic stimulus as many flocked to take advantage of the greater available acreage of arable land, as well as the new markets needed to support the growing town. Enterprise residents did not see the same degree of stimulus and growth that Hurricane had, but what they achieved through their labor and sacrifice was the stability that allowed them to continue to live in the homeland they stubbornly refused to abandon. Each project created an impact on Washington County clear into the foreseeable future.

## CHAPTER IV

### “A MAGNET WHICH NONE COULD RESIST”:

#### ROADS AND TOURISM, 1920s AND 1930s

Ever since the first Mormon settlers moved to southern Utah, they have been reliant on the world outside of Washington County, particularly for capital to complete the public works projects that allowed them to overcome economic depressions and establish a more stable economy. Development of irrigation around the turn of the twentieth century offered these intrepid settlers a new reliable source of land and water. Even so, economic growth was limited so long as Washington County's access to outside markets was restricted.

In the early years of the American West, the railroad provided the quickest access to outside markets. Railroad construction in Utah, as in most of the West, was determined primarily by market forces. Passenger traffic, though important, was not as profitable as transporting mining ore and other raw materials. As a result when rail companies extended their lines through Utah, they often bypassed larger population centers in favor of more profitable mining districts. Although it would have seemed natural to run a line down the Mormon corridor that connected settlements from Salt Lake to St. George, the railroad was built to link together mining districts in western Beaver County and eastern Nevada. The closest the railroad ever got to Utah's Dixie was where it crossed the Nevada border in Iron County, about twenty miles northwest of Enterprise. Limited resources in the desert coupled with the difficult access to the railroad stunted the region's economic growth. Washington County was in essence isolated from outside markets, which protracted the completion of public works programs that were used to prop up the economy during depressions and delayed the benefits those projects provided.

The rise of the automobile in the twentieth century, however, caused public highways to eclipse the importance of the railroad. The emerging highway system democratized Americans' access to the rest of the country. Not only would a road system connect Washington County with outside markets, it provided a new market within its borders that would attract tourists. The sandstone spectacles of the Colorado Plateau were beginning to become better known to the general public. Among the most celebrated of these outdoor playgrounds were the narrow canyons of the Virgin River and sandstone cliffs which now make up Zion National Park. Development of a tourism infrastructure in Washington County required the combined efforts of federal, state, local and private investment, each having a mutual interest in drawing people to the desert canyons. The establishment of roads and development of Zion National Park provided Washington County residents with new public works opportunities that pumped millions of dollars into the region and provided hundreds of jobs through a depression that began in Utah following World War I and lasted throughout the Great Depression of the 1930s. The tourism infrastructure built during this period was essential to establishing one of the area's most important industries.

Frederick Dellenbaugh, who first visited the upper Virgin and Hurricane Valley in 1872, returned to the region in 1903 to visit and paint Little Zion Canyon. Dellenbaugh first caught a glimpse of Zion during his time with Powell, and while the area always intrigued him, he previously had been unable to explore the canyon personally. Dellenbaugh displayed paintings he made of Zion at the 1904 world's fair in St. Louis, and an article in *Scribner's Magazine* chronicling his experience was intended to urge tourism development along the upper Virgin and Zion Canyon. Dellenbaugh was awestruck, believing Zion rivaled some of the better known American landscapes. As he climbed over the Hurricane Bench to begin his journey, his eyes

were drawn eastward and upward to what the locals called Steamboat Mountain, but what he reverently called the Great Temple.

Away below, sage-covered slopes extend to the distant green of Virgin City, overshadowed by the towering magnificence of the Great Temple, standing unique, sublime, adamant. One hardly knows just how to think of it. Never before has such a naked mountain of rock entered in to our minds! Without a shred of disguise its transcendent form risespreëminent. There is almost nothing to compare to it. Niagara has beauty of energy; the Grand Canyon, of immensity; the Yellowstone, of singularity; the Yosemite, of altitude; the ocean, of power; this Great Temple, of eternity.<sup>1</sup>

Dellenbaugh's visit occurred just as many residents in the communities outside of Zion were putting the finishing touches on the Hurricane canal and preparing to re-settle in the new community. Dellenbaugh observed firsthand the toll exacted by years of drought, flood and depression. The roads were difficult to traverse, and because there were no bridges Dellenbaugh and his company needed to ford the Virgin several times. Grafton was reduced to a population of only 115, while Shunesburg consisted of only one occupied home.<sup>2</sup>Dellenbaugh believed the small settlements that still existed on the upper Virgin would soon see an influx in visitors.

Grafton has a situation that must some day make it famous, yet one dreads to think of this land being overrun by the ennuied tourist. But with an altitude of only 3000 feet, a superb, dry climate, mild winters, magnificent environment, and a supply of delicious fruits, it cannot long remain unvisited if a railway ever is built within easy reach.<sup>3</sup>

He later explained how at Springdale, situated at the gate of Zion Canyon, both visitors and the local population could benefit through tourism:

Springdale is the best starting point, and the Mormons will treat him [the visitor] well. They are always agreeable and accommodating, and our stay in this beautiful valley was rendered more delightful by this fact...Springdale vies with

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<sup>1</sup> Frederick S. Dellenbaugh, "A New Valley of Wonders," *Scribner's Magazine*, January, 1904, 4. Steamboat Mountain or the Great Temple, as Dellenbaugh referred to it, is now called the West Temple.

<sup>2</sup>Dellenbaugh, "New Valley of Wonders," 7, 10.

<sup>3</sup>Dellenbaugh, "New Valley of Wonders," 7.

Grafton in the romantic quality of its location, and it is difficult to decide between them, though the views at the former place are even more unique.<sup>4</sup>

When Dellenbaugh visited the canyon itself, only a few people used the land there. A few families, most of whom had small farms at Oak Creek at the east base of Steamboat Mountain, had made Zion Canyon their home. Further up the canyon, Dellenbaugh also witnessed the engineering ingenuity of two of the region's residents, David Flanigan and John Winder. Both these men undertook different means of accessing the wooded plateaus on the east rim of the canyon. Flanigan constructed a cable works that allowed lumber milled at the top of the plateau to be hoisted down about 2,150 feet to the valley floor. With a closer supply of lumber, local residents avoided having to go the 75 miles to Pine Valley or 100 miles to Mount Trumbull. Winder, meanwhile, had carved a trail nearby along an old Indian path that allowed livestock to range on the upper plateaus during the summertime.<sup>5</sup> Before leaving, Dellenbaugh reportedly told Springdale's bishop, Oliver D. Gifford, repeatedly, "You will live to see a big hotel and a good road through this canyon."<sup>6</sup>

Dellenbaugh and others' efforts to promote Zion Canyon eventually led to government efforts to preserve the area. In 1909, Leo A. Snow, a government surveyor from St. George, issued a report to Washington recommending that the area be designated a national park. Historian Thomas Alexander noted, "Snow's recommendation seems to have been the deciding factor in the designation, since excerpts from the narrative attached to the field notes formed part

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<sup>4</sup>Dellenbaugh, "New Valley of Wonders," 12-13.

<sup>5</sup>Dellenbaugh, "A New Valley of Wonders," 13-14; Angus M. Woodbury, "A History of Southern Utah and Its National Parks," *Utah Historical Quarterly* 12, nos. 3-4 (Summer, Fall 1944): 162-63. While both of these sources indicate the elevation change to be around 3,000 feet, the actual elevation of the cable works is around 6,500 above sea level, while the base of the valley below is about 4,350 feet, a difference of 2,150 feet.

<sup>6</sup> Nancy Crawford, "How it Happened: A Sketch of Springdale and Zion Canyon," Washington County Library Special Collections, St. George, Utah, 3.

of the file used by the Interior Department in recommending the national monument designation.”<sup>7</sup> A month later, on July 31, President William H. Taft created Mukuntuweap National Monument under the provisions of the 1906 Antiquities Act.<sup>8</sup> Because of its status as a national monument, Zion not only had access to government funding, but also garnered the attention of many outside groups as well as excited the local population, both looking to benefit from tourism.

Despite its new-found status as a national monument, the first decade saw little development to the region. At the time, no federal agency had jurisdiction over national parks and monuments. Meanwhile, the upper Virgin residents had other priorities than attracting tourists. The Hurricane Canal was completed and many began moving to Hurricane in 1906. Also the discovery of oil near Virgin City caused a short boom to the area, attracting a handful of speculators.<sup>9</sup> In Zion Canyon, life in the national monument was not much different than before as lumber and ranching activities continued.

Perhaps the biggest impediment to development was the lack of good roads. Though a “good roads” movement began around the turn of the century, it took a long time before the movement caught on in Utah. John Roberts, a state representative from Ogden, submitted several bills in the first decade of the twentieth century to improve roads throughout the state. He also petitioned Congress to appropriate federal funds to assist state efforts. Roberts even appealed to the public by writing several newspaper articles. Roberts called for a road

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<sup>7</sup> Thomas G. Alexander, “Red Rock and Gray Stone: Senator Reed Smoot, the Establishment of Zion and Bryce Canyon National Parks, and the Rebuilding of Downtown Washington, D.C.” *Pacific Historical Review* 72, No. 1 (February, 2003): 8.

<sup>8</sup> Woodbury, “History of Southern Utah,” 187-88. Mukuntuweap is the traditional Paiute name of Zion Canyon, though its meaning or derivation is unclear. See Woodbury, “History of Southern Utah,” 114.

<sup>9</sup> Douglas D. Alder and Karl F. Brooks, *A History of Washington County: From Isolation to Destination*, 2<sup>nd</sup> ed. (Springdale, Utah: Zion Natural History Association, 2007), 242-244.

commission that coordinated the efforts of both the state and counties, putting an efficient and uniform process in place for funding road construction. He believed that greater organization on the state and local levels would eventually attract federal funding to assist their efforts.

Eventually, Roberts' persistence proved successful as seven bills were presented to the state legislature in 1909 which established the state commission, allocated funding, and authorized the use of convict labor for road construction and maintenance.<sup>10</sup>

During the 1910s, Washington County, along with most of Utah enjoyed steady economic growth. Mining and agriculture, perhaps the most important industries in the state, enjoyed high demand particularly during World War I. Iron ore mining in Iron County, which had been dormant, was revived for wartime. Additionally, irrigation projects in Utah's Dixie during the previous decades had increased agricultural production. Hurricane in particular had a promising, though budding, fruit industry consisting mostly of peaches, although melons, grapes, pomegranates, cherries, and nuts among others were also successful. Despite these improvements, Washington County remained isolated and, therefore, quickly embraced the "good roads" initiative. Several projects soon focused on establishing new roads and bridges, as well as grading and maintaining existing ones. Because of the stable employment situation in the area, convict labor was used primarily for these early projects.

While increasing commerce, particularly agricultural trade, was a primary goal of the "good roads" initiative, tourism became an important motivation as well. Washington County communities reached out to their neighbors in Utah and Arizona to form a partnership to improve the road system. The Hurricane Commercial Club sponsored a convention with representatives from the state road commission, as well from other communities from the

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<sup>10</sup> "'Good Roads' Man of Lower House," *Deseret News*, 8 February 1905; Janet R. Balmforth, "'Good Roads Roberts' and the Fight for Utah Highways," *Utah Historical Quarterly* 49, no. 1 (Winter, 1981): 56-67.



surrounding area. Local leaders believed the fruit industry in Utah's Dixie and mines in Iron County could profit by gaining access to markets in Salt Lake City or Los Angeles. Hurricane's Mormon bishop and a member of the board of county commissioners, Samuel Isom, anticipated that 10,000 to 15,000 cases of Elberta peaches could be shipped fresh to northern markets that upcoming season.<sup>11</sup> The convention, held on July 22, 1914, was intended to foster cooperation within the communities as well as to put pressure on the state to provide aid.

This project was part of larger highway initiatives. The largest was known as the Arrowhead Trail which would connect Salt Lake City with Los Angeles, promoted by Douglas White, a railroad agent from Los Angeles.<sup>12</sup> Another significant road proposal would connect Hurricane with the Grand Canyon.

While leaders saw greater profits from established markets, the potential for a more lucrative tourism market soon dominated the road building discussions throughout southern Utah. Prior to this convention the *Washington County News* explained:

Aside from the strict industrial importance of this state highway to the counties along the route, which have long suffered for lack of railroad transportation, there is the added argument which is constantly being more persistently heard to the effect that the state can no longer overlook the need of a tourist road that will lead to the Grand Canyon of the Colorado...

With the entire line completed, not only would the Grand canyon be accessible but it would pass Zion's canyon near Toquerville, which is considered a rival of the Grand canyon in many particulars.<sup>13</sup>

Overall, the convention was successful in gaining support from local and state officials, as well as outside interested groups. In a continuation of the cooperative spirit that dominated

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<sup>11</sup> "Hurricane Makes a Very Good Showing," *Washington County News*, 16 July 1914; "Good Roads Meeting Called at Hurricane," *Washington County News*, 16 July 1914.

<sup>12</sup> Alexander, "Red Rock," 9.

<sup>13</sup> "Finish the North & South State Highway," *Washington County News*, 16 July 1914.

the region's history since its founding, town leaders pledged their own money to start the project and to entice others to invest as well. Hurricane was willing to put up \$2,000, with an additional \$1,000 if necessary. Toquerville was to invest \$1,500 initially, but was also willing to match Hurricane with an additional \$1,500. La Verkin pledged \$500. Lund, a small village in western Iron County where the closest rail station was located, was also willing to chip in \$400.<sup>14</sup>

As hoped, more outside interest in improving the roads of the region soon followed. Douglas White, a Union Pacific Railroad executive and one of the organizers of the Arrowhead Trails Association, visited Mukuntuweap National Monument and pledged support for a new road leading to the monument. Due to the association's lobbying efforts and the support of Utah Senator Reed Smoot, the federal government appropriated \$15,000 in 1916 for a road into the monument, which was completed the following summer.<sup>15</sup>

The National Park Service, established August 25, 1916, also began taking greater notice of Zion Canyon. At the behest of White, Park Service Deputy Director Horace Albright visited Mukuntuweap shortly after the road's completion. Albright, anxious to see the location he heard described as "Yosemite painted in oils," was as impressed as Dellenbaugh had been fourteen years earlier. Albright camped overnight in the canyon and was "overwhelmed by the loveliness of the valley and the beauty of the canyon walls." He soon recommended to Park Service Director Stephen T. Mather that the national monument be promoted to national park status. Though Mather felt his deputy director must have been duped by local promoters, he began submitting requests to President Woodrow Wilson to expand the monument's boundaries

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<sup>14</sup> "Five-County Road Convention at Hurricane," *Washington County News*, 23 July 1914; "Hurricane," *Washington County News*, 30 July 1914.

<sup>15</sup> Wayne K. Hinton, "Getting Along: The Significance of Cooperation in the Development of Zion National Park," *Utah Historical Quarterly* 68, no. 4 (Fall 2000): 317; Woodbury, "History of Southern Utah," 196; Alexander, "Red Rock," 8.

from 15,840 acres to 76, 800 acres and change the official name to “Zion” since that was the name the canyon was called by locals and would be easier to brand by promoters. Senator Smoot also presented a bill in Congress to establish Zion as a national park, which was signed by President Wilson on November 20, 1919.<sup>16</sup>

The park was officially dedicated on September 15, 1920, before a crowd of 857, brought in by 257 automobiles. Among the dignitaries who attended were National Parks Director Stephen T. Mather, Senator Reed Smoot, former Utah governor William Spry, and Mormon Church President Heber J. Grant. Local historian Andrew Karl Larson, who at the time was part of the Dixie College Band, recalled having to make the forty mile, four-hour journey along deteriorating roads between St. George and Zion in a crowded Model T Ford. Several stops were necessary to add water to the radiator and clean the spark plugs. Larson and his band mates eventually arrived, though their once crisp uniforms and instruments were covered with the region’s famed red sand. Due to the struggle many had in getting to the ceremony, it was no coincidence that road improvements were a common theme among the dedication speakers.<sup>17</sup>

The dedication of Zion National Park coincided with the beginning of another depression that afflicted Utah and the West. Due to the end of World War I and the subsequent influenza pandemic, the demand for Utah mining and agriculture plummeted. In many ways, the effects of this depression were worse than the 1929 stock market crash that ushered in the Great Depression. While the rest of the country enjoyed the “Roaring Twenties,” many aspects of Utah’s economy lagged throughout the 1920s and 1930s. Agriculture, in particular, was hit hard

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<sup>16</sup> Richard West Sellars, *Preserving Nature in the National Parks: A History*, new ed. (New Haven: Yale University Press, 2009), 67; Woodbury, “History of Southern Utah,” 199; Hinton, “Getting Along,” 321-323; Alexander, “Red Rock,” 11-14.

<sup>17</sup> “Zion Park Dedicated,” *Washington County News*, 16 September 1920; Andrew Karl Larson, “Zion National Park With Some Reminiscences Fifty Years Later,” *Utah Historical Quarterly* 37, No. 4 (Fall 1969): 421-422; Alexander, “Red Rock,” 14-15.

as cash income for farmers was cut in half and would not recover until World War II. Perishable commodities, such as Dixie fruit, must have been among the hardest hit. Though the original pillars of Utah's economy suffered, state and federal investment in public works increased during the depression. These public works, particularly road construction, and investment in southern Utah's tourism industry diversified the region's economy, created employment opportunities and poured cash into local economies.<sup>18</sup>

Having a national park in their backyard created immediate changes to the communities along the upper Virgin. Efforts were made to make locals aware of new land use policies that protected the delicate environment within the park. When Albright visited Zion, he worked with local leaders, such as Rockville's bishop, David Hirschi, to eliminate grazing of livestock within park boundaries. The lumber operation and cable works were discontinued, except for a few projects directly within the park. Park officials enjoyed a high degree of cooperation with the local population. Albright praised the assistance he received, commenting, "I shall always remember with keenest delight my early association with those good Mormon people, who, without knowing what a national park was, cooperated so fully in executing orders that brought them real hardship."<sup>19</sup>

Despite these new restrictions on their lifestyle, local residents likely cooperated because they realized the potential economic benefits to having a national park. Stephen Mather also worked with Mormon leaders to prepare young people to host the mass of tourists.<sup>20</sup> The

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<sup>18</sup> Richard D. Poll et al., eds., *Utah's History* (Logan, Utah: Utah State University Press, 1989), 463-471; Gerald D. Nash, *The Federal Landscape: An Economic History of the Twentieth Century West* (Tucson: University of Arizona Press, 1999), 18-20.

<sup>19</sup> Horace M. Albright, Memorandum, 4 August 1933, quoted in Woodbury, "History of Southern Utah," 200; Hinton, "Getting Along," 322.

<sup>20</sup> Hinton, "Getting Along," 325.

Crawfords, who owned a farm at Oak Creek where the park museum now stands, quickly found ways to profit from the influx of visitors. William Crawford converted part of his home into a darkroom and became an amateur photographer of the park. To supplement the family's meager income, William had his young sons, J. L. and Lloyd, stand on the side of the road selling his photographs for a nickel apiece.<sup>21</sup>

With the expansion of park boundaries, it became necessary for the government to purchase any private land holdings within the park, a process that took over a decade. Most were eager to sell because the same problems that plagued residents of the upper Virgin in the previous century continued for those living in Zion Canyon: floods, constant maintenance of irrigation ditches, and the agricultural depression convinced many to take the money and relocate. According to J. L. Crawford, "Most of my generation was kind of fed up with trying to make a living on those little pieces of land, trying to keep irrigation water in, but once you've lost your irrigation water, you didn't have a crop, and if you didn't have a crop you didn't eat."<sup>22</sup> The Crawford family, however, was one of the last holdouts, claiming that "Brigham Young called us to settle here, and we can't go until we are released." Zion Superintendent Eviend T. Scoyen contacted current church president Heber J. Grant, who released them.<sup>23</sup> J. L. Crawford, with mixed emotion, recalled, "I think we weren't paid enough for it...but that was in 1931 right

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<sup>21</sup> Eileen M. Smith-Cavros, *Pioneer Voices of Zion Canyon* (Springdale, Utah: Zion Natural History Association, 2006), 17.

<sup>22</sup> J. L. Crawford, interview with no attribution, quoted in Smith-Cavros, *Pioneer Voices*, 75-76.

<sup>23</sup> Eviend T. Scoyen, interview by Lucy C. Schiefer, Springdale, Utah, 28 January 1971, 20, Zion Natural History Association, Zion National Park, Springdale, Utah (herein ZNHA), also quoted in Hinton, "Getting Along," 327.

in the middle of the Depression so I guess they were glad to get it. My father just went down canyon a couple of miles and bought another home.”<sup>24</sup>

The new park also captured the interest of many outside investors looking to capitalize on the potential tourism market. The history of national parks has always been an interesting balance between preserving nature and promoting tourism. As such, many different interest groups became involved in the process of creating national parks, many for the sole purpose of profiteering. The image of the West, similar to the one Dellenbaugh painted, as an untamed land with high jagged mountain peaks, clear pristine lakes and other notable landmarks all filled with a variety of abundant wildlife would be preserved in the national parks. This image not only attracted tourists seeking to glimpse the Old West, but also companies looking to profit from the traffic. Railroad companies were among the first to see the potential in a tourism market and therefore became a lead voice in lobbying for several more national parks, while at the same time they bought land, built hotels, and extended their lines in order to monopolize access to those national parks. By 1870, two years before Yellowstone was named the first national park, the Northern Pacific Railroad Company was planning to extend its line to the Park’s northern entrance. In 1883, the line was completed and a year later a hotel financed by the Northern Pacific was finished.<sup>25</sup> Railroad companies were also instrumental in the establishment and development of several other national parks including Sequoia, Yosemite, Mount Rainer, and Glacier.<sup>26</sup>

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<sup>24</sup> J. L. Crawford, interview, quoted in Smith-Cavros, *Pioneer Voices*, 76.

<sup>25</sup> Richard West Sellars, *Preserving Nature in the National Parks: A History*, new ed. (New Haven: Yale University Press, 2009), 8-9, 19.

<sup>26</sup> Sellars, *Preserving Nature*, 12.

Railroad companies were among the first to invest in Zion's development, despite the fact that nearest rail station at Lund was 90 miles away. As previously mentioned, railroad executives were among the first involved in the Arrowhead Trail Association's lobbying for more government funding to improve roads throughout southern Utah. These same railroad companies also began investing their own resources to promote southern Utah tourism. In 1917, the Los Angeles and Salt Lake Railroad Company reached out to Pasadena, California businessman William W. Wylie, who had already established tent camps at Yellowstone, to build camp sites at Zion and the north rim of the Grand Canyon. They also contracted with two Cedar City brothers, Gronway and Chauncey Parry, who bought two seven-passenger cars to transport visitors from Cedar City to Zion, Bryce Canyon and the Grand Canyon.<sup>27</sup>

Another Cedar City man, Randall Jones, was among the most instrumental in enticing further railroad and government investment. Cedar City was only 33 miles from the rail hub at Lund and the largest nearby city and its position on the Arrowhead Trail also made it an ideal location for tourists to begin their southern Utah adventure. In 1919, the Cedar City Commercial Club began seeking investment in a first class hotel to house railroad tourists. Jones was hired as the architect to design the El Escalante Hotel. Jones, an amateur photographer, made a lantern slide show to promote the scenic wilderness on his many travels. His promotional efforts soon caught the attention of Union Pacific, which by 1923 had bought out the El Escalante hotel, which they completed a year later, and began making efforts to purchase Wylie's camps and the Parry brothers' transportation business. That same year, Union Pacific formed a subsidiary known as the Utah Parks Company which ran their tourism interests in Cedar City, Zion National

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<sup>27</sup> Woodbury, "History of Southern Utah," 203-204; Hinton, "Getting Along," 319-320; Alexander, "Red Rock," 9-11.

Park, as well as Bryce Canyon and the Grand Canyon.<sup>28</sup> A rail extension between Lund and Cedar City was completed in June 1923, just in time for a visit from President Warren G. Harding. While visiting several western states, Harding rode the new line on his way to visit Zion, which proved to be a big promotional boon for both the region and the railroad.<sup>29</sup> Union Pacific also hired Randall Jones to continue to promote the Utah Parks Company throughout the country, including Congress and the White House.<sup>30</sup> Among the most significant projects Jones lobbied for was the Zion-Mt. Carmel Highway, a twenty-five mile stretch of road that connected Springdale with U. S. Highway 89, the main road between Bryce Canyon and the Grand Canyon.<sup>31</sup>

The moment Zion became a national park, an effort was underway to build a road that would connect it to other scenic wonders along the Colorado Plateau. In fact, since its founding, the National Park Service had made plans to connect all national parks and monuments in the western United States. Although railroad companies had created easy access to many of the more well-known national parks in the West, Stephen Mather believed that the future of travel was by automobile. He therefore founded the National Park-to-Park Highway Association in the first year of the Park Service's operations. By 1920 this association had sponsored the improvement and construction of six thousand miles along the park-to-park route.<sup>32</sup>

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<sup>28</sup> Janet Burton Seegmiller, *A History of Iron County: Community Above Self* (Salt Lake City: Utah State Historical Society, 1998), 403-408.

<sup>29</sup> Seegmiller, *Iron County*, 387-388; Alexander, "Red Rock," 21-22. President Harding would not return to Washington from his western tour. After visiting Alaska, Washington and Oregon, he passed away in San Francisco on August 2, 1923.

<sup>30</sup> Seegmiller, *Iron County*, 400-401, 406.

<sup>31</sup> Hinton, "Getting Along," 325.

<sup>32</sup> Sellars, *Preserving Nature*, 61-62.



When Mather came to Utah in September 1920 to dedicate Zion National Park, he first stopped at Ogden, 35 miles north of Salt Lake City, to meet with Utah Governor Simon Bamberger; Nathaniel Jackson, secretary of the Salt Lake Commercial Club; D. S. Spencer of the Union Pacific; and A. N. McKay. Mather wanted to establish a scenic highway that would connect Zion with other parks along the Colorado Plateau. According to a report in the *Washington County News*:

Nowhere in the world, Mr. Mather and the others declared are there to be found in such a comparatively small radius so many strange and wonderfully beautiful forms of natural grandeur, ranging from the majestic splendors of Zion canyon to the historically fascinating abandoned cities of the cave dwellers, the great natural bridges and the wooded wonders of the Cedar Brakes.

The article reported that the scenic highway linking these locations together would make Zion “a magnet which none could resist.”<sup>33</sup> That same year, a Park-to-Park conference was held in Denver. Governor Bamberger appointed Randall Jones as Utah’s delegate to the conference.<sup>34</sup>

While the concept of making a connecting road between Zion and U. S. Highway 89 was simple enough, finding any possible route proved to be an incredible challenge. Utah State Highway Engineer, Howard Means recalled:

The question of this connecting road was of such vital importance to the development of southern Utah parks and in fact to the whole state of Utah that it was a question the entire state was vitally interested in, and much publicity was given us as to solving a most difficult engineering problem, which as I stated baffled us for several years.<sup>35</sup>

In June 1923, Means and B. J. Finch, district engineer of the United States Bureau of Public Roads, went on a surveying trip to see if a shortcut road between Zion and Highway 89 was

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<sup>33</sup> “Highway to Link Natural Wonders of Utah Proposed,” *Washington County News*, 16 September 1920.

<sup>34</sup> Woodbury, “History of Southern Utah,” 203.

<sup>35</sup> Howard Means, *Autobiography*, 173, typescript, Utah State Historical Society, Salt Lake City, Utah, copy located in Collected Research concerning Zion-Mt. Carmel Highway, ZNHA.

feasible. On June 18, they spent the entire day exploring the country west of Orderville leading to the east rim of Zion Canyon. They returned to Orderville discouraged, believing at the time that any route there was “an impossible situation.” The problem was obvious: how do you bring any passable road from the canyon floor over sheer sandstone cliffs rising 2,000 feet to the east rim? The following day Means and Finch took the road between Fredonia, Arizona, and Hurricane and then the Rockville road to Zion, a journey that took most of the day, which only reinforced in their minds the need for a connecting road. After resting in the canyon that night, they called on John Winder, the man responsible for building a livestock trail from the canyon floor to the east rim. Winder took them to Pine Creek Canyon which adjoined Zion Canyon. They followed Pine Creek as far as they could until they reached a perpendicular wall that cut off their path. That night they climbed up Winder’s trail to the cable works, and the next morning went along the east rim toward Clear Creek. Leaving their horses, Means, Finch and Winder followed the creek’s path by scrambling over the rough terrain of small sandstone ledges and boulders before eventually summiting on the top of the rim. To their surprise, the waterway they supposed was Clear Creek was actually a continuation of Pine Creek.<sup>36</sup>

Suddenly the impossible situation became probable. Means and Finch determined that a road could be built through Pine Creek Canyon. A road could rise up the talus slopes through a series of switchbacks until it reached the face of the sandstone cliffs. With no easy way to make a road over the sheer cliffs, they decided a tunnel could then be made through the cliff parallel to the narrows of Pine Creek until it reached the top of the east rim. According to Means, “This would entail tremendous expense we thoroughly appreciated, but the subject in hand was of a

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<sup>36</sup> Means, Autobiography, 171-173; “Report Made on Road Work,” *Salt Lake Tribune*, 25 June 1923.

tremendous value and had to be solved if physically possible from some source.”<sup>37</sup> Once on the east rim, a road could easily be cut through the slick rock country and rolling hills leading back to U. S. Highway 89.

The hope of park officials was to have as minimal an impact on the environment as possible. Shortly after the National Park Service was created, Secretary of the Interior Franklin Lane advocated that any planned developments within a national park give “special preference to the preservation of landscape.”<sup>38</sup> From its earliest days, the National Park Service wanted both to develop parks in order to promote tourism, allowing visitors easy access to the most attractive areas of the parks, and to preserve the parks in their pristine condition. Therefore, park directors sought a balance between development and preservation by trying to have any desired construction have as little environmental impact as possible. In Zion, as in other national parks, landscape architects were brought in to design improvements that would not detract from the park’s aesthetics.<sup>39</sup> The road and tunnel were carefully planned to serve their intended purpose of improving access to Zion canyon, and at the same time avoid scarring the landscape as much as possible.

Means and Finch also surveyed an alternative route that followed the east fork of the Virgin River from Rockville through Parunuweap Canyon before making a connection to Highway 89. The report of their survey and the benefits of these proposed routes appeared in the *Salt Lake Tribune* on June 26, the same day President Harding arrived in Salt Lake City.<sup>40</sup> More detailed surveys and proposed cost estimates of both proposed routes were completed in 1927.

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<sup>37</sup> Means, *Autobiography*, 173

<sup>38</sup> Sellars, *Preserving Nature*, 52.

<sup>39</sup> Sellars, *Preserving Nature*, 50-52.

<sup>40</sup> “Proposed Road to Connect Park Has Many Advantages,” *Salt Lake Tribune*, 26 June 1923.

While both routes were viable options, both came at a high price. Both routes proved to be similar in distance, 22.36 miles for the Parunuweap route and 24.28 miles for the Pine Creek route. The Parunuweap route, however, would require about an additional half mile of tunnel length. The total cost estimates were \$1,879,190.50 for the Parunuweap route and \$1,481,070.78 for the Pine Creek route.<sup>41</sup>

Because of the cost, the Pine Creek route was preferred. Government funding proved to be the next challenge for the road to summit. About eight and a half miles of the road, including the tunnel, would lie within National Park borders. Therefore it would be funded by the federal government. The state would be responsible for the fifteen and a half miles outside of the park, but would receive federal subsidies. Before Means's tenure as state engineer ended in 1926, he lobbied Washington officials for the needed appropriation. Means worked with Parks Director Stephen Mather, already a champion of the road, who garnered the support of Louis Crampton, Chairman of the Congressional Appropriations Committee.

The Union Pacific and its subsidiary Utah Parks Company also had a great stake in the road which allowed them to wield their influence in garnering appropriations for the Zion-Mt. Carmel Highway. Each day, Utah Parks Company had fifteen to twenty buses visit Zion which made them vitally interested in the highway since it would provide a significant shortcut for their bus tours between Bryce, Zion and the Grand Canyon. When the company was formed in 1923, they purchased 160 acres of land on the rim of Bryce Canyon where they began building a lodge. Meanwhile, Congress passed a law on June 27, 1924, that would make Bryce Canyon a national park, though the one major obstacle to becoming a national park was purchasing the land owned by Union Pacific. Randall Jones negotiated an agreement with the Park Service whereby the

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<sup>41</sup> "Final Construction Report on East Rim Road, Route #1: Zion National Park, Washington County, State of Utah," n. d., 9, Collected Research on Zion Mt. Carmel Highway, ZNHA.

deeds to the Bryce land would be held in escrow until the government agreed to construct a short-cut road connecting Zion with Bryce Canyon. According to E. T. Scoyen, this agreement with Jones and Union Pacific paved the way for the authorization of the Zion-Mt. Carmel Highway. Without the agreement, Scoyen said the highway “probably would not have been authorized for a long time—a project of that magnitude at that time—had it not been for this business of getting Bryce Canyon as a national park.” Bryce Canyon was officially dedicated as a National Park on February 25, 1928, shortly after construction began on the Zion Mt. Carmel Highway which allowed the deeds to be released out of escrow to the National Park Service.<sup>42</sup>

Once the final route had been approved and funds had been secured, the construction of the Zion-Mt. Carmel Highway quickly began. In September 1927, the government awarded the contract for the construction of the tunnel, as well as the series of switchbacks that led from the main Zion Canyon road, to the Nevada Contracting Company. The project was a huge undertaking, requiring the greatest of engineering skill, an arsenal of equipment, power, water, and a large detachment of labor.

Work began almost immediately on a road that connected the main road through Zion Canyon to the tunnel’s west portal. At the time construction began both planned tunnel entrances were completely inaccessible. Therefore, building the road from the canyon floor to the sandstone cliff face five hundred feet above was among the top priorities. The road would have to cross the Virgin River and Pine Creek, and then rise along six switchbacks up the talus slope. Steam shovels were used to clear the talus debris and large boulders. Retaining walls were also built to prevent the road from sliding off the loosely packed hillside.

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<sup>42</sup>Scoyen, interview, 7-8; Nick Scrattish, “The Modern Discovery, Popularization, and Early Development of Bryce Canyon, Utah,” *Utah Historical Quarterly* 49, No. 4 (Fall 1981): 361-362; Alexander, “Red Rock,” 23-25.

Possibly getting the idea from the Flannigan's cable works further down Zion Canyon, workers erected a cable tram that rose 400 feet from the canyon floor. A foot trail was also constructed along the base of the cliff and the top of the talus slope. These early developments allowed supplies to be brought directly to the tunnel site. Air compressors were brought in to run the drilling equipment and set up along the foot trail. Pumps were also set up to bring water from Pine Creek to holding tanks along the trail where it could then be pumped into the tunnel.

At the aerial tram's terminus the Nevada Company constructed a large camp that was not only the center of operations for construction, but became a veritable city providing housing for the army of workers. Tents and bunkhouses were used to house the single men, while cabins housed married workers. The camp also contained many services benefiting not only the workers but also the local residents. The Crawford boys living at nearby Oak Creek found a job waiting tables for the hungry shifts of workers at the dining hall. The camp also had a doctor, Clark McIntire, who moved his family from Kanab. Though most of his attention was directed to workers' injuries and illnesses, Dr. McIntire also treated some of the local residents who had no local doctor. J. L. Crawford remembered going to the workers' camp with a sore throat, where "Doc McIntire" diagnosed him with tonsillitis and surgically removed his tonsils.<sup>43</sup> Nineteen-year-old Hurricane resident George Shamo found work at the camp as a "chuck tender" or driller, but also found opportunities to work as a barber at the camp site. George's career aspirations as professional barber, however, were soon dashed when he cut the ear of one his patrons while shaving him with a straight edge razor. George's father, Harry, also found work within the campsite as a shoe cobbler.<sup>44</sup>

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<sup>43</sup>J. L. Crawford, interview by author, 13 August 2009; Smith-Cavros, *Pioneer Voices*, 15.

<sup>44</sup>George Shamo, interview by Donald T. Garate, Hurricane, Utah, 20 December 1987 and 2 January 1988, Collected Research on Zion-Mt. Carmel Highway, ZNHA.

By December 9, 1927, the camp swelled to over 100 men and would grow to over 200 employees at its peak. According to the final construction report, “Labor was plentiful and easy to obtain.”<sup>45</sup> Many of these workers, such as George and his father, were hired from local communities which made the tunnel an important source of employment and economic stimulus during the early stages of the Great Depression. Wages were generally modest even for the time and determined by the amount of skill each worker had. Shovel runners were paid the most, making \$10 to \$12 for each eight hour shift. Shift bosses and carpenters made \$7 to \$8 per shift. Truck drivers made \$5 to \$6, compressor operators and miners \$5.50, drillers \$5, and muckers \$4 per shift.<sup>46</sup> Nevada Company set a twenty-one-year-old age requirement for workers. However, George Shamo convinced them to hire him even though he was only eighteen when the project began. Shamo originally was hired to be a mucker but was soon promoted to be one of the “chuck tenders” despite, in his words, looking more like a cowboy than a miner. He soon learned how he could increase his daily wages. The requirement was that each shift bore eight feet into the tunnel but workers could make a bonus if they went beyond. Shamo and Hugh Wilcox, another local who worked as a miner on the same shift, had the blacksmith fashion nine foot drill bits in order to push the bonus length each shift, which worked until the tunnel boss caught on to their trick.<sup>47</sup>

The construction of the tunnel also brought some other immediate benefits to the upper Virgin communities. Since electricity was an absolute necessity to power the equipment, the

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<sup>45</sup>“Final Construction Report,” 26.

<sup>46</sup>“Final Construction Report,” 36.

<sup>47</sup> George Shamo, interviews; Donald T. Garate, “The Zion Tunnel: From Slickrock to Switchback,”(unpublished manuscript, ZNHA, 1989), 40. An edited version of Garate’s work was published by the Zion Natural History Association in 1989; however, the published version does not contain most of the information from Garate’s original manuscript. See Donald T. Garate, *The Zion Tunnel: From Slickrock to Switchback*, rev. ed. (1989; Springdale, Utah: Zion Natural History Association, 2001), 2.

Dixie Power Company was contracted to build a power line from La Verkin. As a result communities along the upper Virgin received electricity for the first time.<sup>48</sup>

The growing number of employees working at Zion National Park also brought the need for an elementary school in Springdale. For years, Springdale had wanted a new school, but could not get approval from the Washington County school board. Superintendent Scoyen used his influence with the school board, which finally agreed to pay for half of the construction of a new school if Springdale residents provided the labor. Scoyen also arranged for equipment used to make improvements within the park to be brought into Springdale during the weekends so the residents could use it to help in the construction.<sup>49</sup> In order to attend the new school, children of tunnel employees rode a bobsled down the switchbacks from the Nevada Company campsite. When they reached the Zion Canyon road they hitched a ride into Springdale. To return to the campsite at the end of the day, a Mack truck would be chained to the bobsled and the children would ride back up the switchbacks.<sup>50</sup>

Since the road had not yet reached the tunnel's west portal, drilling first began at several points along the tunnel's route. As the campsite was being constructed, crews were also along the pioneer trail erecting scaffolding up the cliff side until they reached the tunnel's elevation. The plan was to blast six holes in to the cliff creating windows, called galleries. From these galleries work crews could bore the tunnel from both directions, thus greatly expediting the tunneling process as workers could tunnel from several starting points. These galleries also served a couple of additional purposes once the tunnel was completed. The first was to provide a

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<sup>48</sup>J. L. Crawford, interview by author; Garate, "The Zion Tunnel," 26.

<sup>49</sup> Hinton, "Getting Along," 326-327.

<sup>50</sup>Garate, "The Zion Tunnel," 21.



natural ventilation system to clear out car exhaust and other noxious gases. The galleries also had an aesthetic purpose, giving travelers a framed view of the canyon from inside the tunnel.

On November 8, drilling and blasting of the first gallery began. Less than a month later, thirty-five men were involved in tunneling operations. Blasting pulverized the soft Navajo sandstone to dust, which was pushed into Pine Creek and washed down stream, erasing most traces of construction. On December 19, the two western-most galleries had been bored deep enough to begin working on the pilot tunnel that was eight feet tall and nine feet wide.

The dawning of a new year brought new energy to the tunnel when the Dixie Power line finally reached the worksite on January 3, 1928. Up until that point, workers relied on the small carbide lights and needed to push out the dynamite fumes with compressed air hoses. With power, electric lighting and fans were soon brought into the tunnel. Also, a more powerful Sullivan stationary compressor was started as well as a mucking machine that aided in cleaning up the debris from the drilling.<sup>51</sup> At the peak of the tunneling, between December 1, 1927 and August 20, 1928, work on the tunnel continued around the clock, broken up into three eight-hour shifts.<sup>52</sup>

Workers constantly faced dangerous situations because of the difficult terrain, heavy equipment and large amount of explosives. One explosion shot a ten-pound sandstone boulder through the roof of the dining hall, crashing through a table where hungry workers sat.<sup>53</sup> In the early morning hours of July 1, 1928, George Shamo and Hugh Wilcox blasted their tunnel section that would connect it to the pilot tunnel which had already been opened to the west portal. What should have been a day to commemorate another milestone in the project soon

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<sup>51</sup>“Final Construction Report,” 31; Garate, “The Zion Tunnel,” 26.

<sup>52</sup>“Final Construction Report,” 37.

<sup>53</sup>Garate, “The Zion Tunnel,” 21.

turned to tragedy. Their shift boss, Johnny Morrison, went into the shaft after the explosives went off to clear the fumes with a compressed air hose, since electric fans were not yet available in their section. When their boss did not return, Shamo and Wilcox entered the dark smoke and discovered Morrison unconscious from the dynamite fumes. Reviving their boss, Shamo and Wilcox hoped they might be able to make their way through the main tunnel and catch a truck to take them and their ill boss back to camp. Debris from the blast soon sealed off the new entrance and they had to make a quick dash through the thick, noxious cloud of fumes and dust back through the gallery they originally entered that night. They barely made it out without passing out themselves. By the time they reached the camp, their boss's condition worsened. Despite their best efforts to bring him back safely, Johnny Morrison succumbed from the inhalation of the toxic fumes.<sup>54</sup>

The pilot tunnel was completed when workers broke through the east portal on September 16, 1928. As each section of the pilot tunnel was completed, the tunnel was enlarged by a process known as "ring drilling" where a drill on a spindle was rotated, boring several holes in the walls of the pilot tunnel to form a ring. The process was then repeated three feet later. At the end of each shift these holes were filled with dynamite and set-off to widen the tunnel to sixteen feet high by twenty feet wide. On average, each shift made twelve rings, which required ten boxes of dynamite to blast. Mucking crews would then shovel the loose sand and debris into mining cars which would take it to the tunnel entrance, where a power shovel would load the debris on to a dump truck.<sup>55</sup> With the ring-drilling finished on October 19, crews spent the next two months blasting the final uneven spots, completing the main tunneling operations on

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<sup>54</sup>George Shamo, interviews; Garate, "The Zion Tunnel," 39-42.

<sup>55</sup>Garate, "The Zion Tunnel," 34-36.

December 20, 1928. Crews spent the next year reinforcing the walls with timbering and a one-inch coating of gunite, a mixture of cement and sand, which protected the newly exposed sandstone from deteriorating from exposure to the air. Also, the final rough areas of the tunnel were dynamited and the road was paved with concrete. The final work on the tunnel involved reinforcing the galleries with concrete and mason work around both tunnel portals.<sup>56</sup>

The final phase of the Zion-Mt. Carmel Highway was to build the road from the junction with U. S. Highway 89 to the east portal of the Zion tunnel. Just after the Nevada Company had bored through the east portal of the pilot tunnel, the Park Service determined that there were no funds available to begin work on this final section of road. New funding would have to wait until Congress reconvened that December. Meanwhile the state portion of the road, done by Raleigh-Lang Construction of Springville, Utah, was working westward from the Mt. Carmel junction toward the east entrance of Zion National Park. Because the Nevada Company already had the equipment and crews in place and had come in as the lowest bidder for the final section, they agreed to continue building eastward from the tunnel, financing themselves until Congress could reimburse them. The Nevada Company also reached an agreement with Raleigh-Lang that allowed them to push beyond the park boundary until the companies met.<sup>57</sup>

The road from the east portal of the Zion Tunnel to Mt. Carmel Junction went relatively smoothly. The only obstacles were building a bridge that spanned Pine Creek immediately after the east portal of the tunnel, boring another very short tunnel, and blasting through some rough patches of slickrock. The two companies connected the road on July 31, 1929. Very shortly afterward park employees began taking advantage of the road. Because Bryce Canyon fell under

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<sup>56</sup> Zion National Park, Superintendents Monthly Reports, 1927-1930, December 1928, Collected Research concerning Zion-Mt. Carmel Highway, ZNHA; Garate, "The Zion Tunnel," 43-44.

<sup>57</sup>"Final Construction Report," 48; Superintendents Monthly Reports, October 1928; Garate, "The Zion Tunnel," 44.

the Zion superintendence, it became necessary for park officials to travel between the two parks. These officials took advantage of the fact that they could save time by traveling through the new tunnel and freshly cut road.<sup>58</sup>

Public access would still have to wait almost another year since surfacing the road was not yet completed and the two bridges over the Virgin River and Pine Creek had not even been started. Part of what delayed construction of the bridges was the fact that landscape architects had changed their designs to conform to the park's standards of enhancing the scenic surroundings.<sup>59</sup> The 185-foot Virgin River Bridge was made out of steel beams which were reinforced through concrete footings and foundation. Once the steel beams were in place and a concrete slab poured over the top, the steel beams were painted so as not to contrast with the local surroundings.<sup>60</sup>

The 60-foot Pine Creek Bridge was designed to be as much art as it was practical engineering. Park Service landscape architect Harry Langley insisted the bridge be built out of masonry. From his tent near park headquarters, Langley built a model of the arched bridge out of bars of old, yellow laundry soap. This model was built to scale so that Langley knew the precise measurements of every stone before it was put into place.<sup>61</sup> The stones from the bridge were gathered from all parts of Zion National Park, so that all colors of stone within the park could be represented within the bridge. Local resident Alma Hirschi was hired as a teamster to

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<sup>58</sup>Superintendents Monthly Reports, July 1929; "Final Construction Report," 51.

<sup>59</sup> Superintendents Monthly Reports, October 1828.

<sup>60</sup> "Final Construction Report," 57-59.

<sup>61</sup>Scoyen, interview, 8-9.

haul some of these stones that were sometimes cut from the most remote areas of the park.<sup>62</sup> Reynolds-Ely, the company hired to build both bridges, took meticulous care in its construction. The Final Construction Report indicated that the company had no experience in masonry work which led to delays; however, they took great pride in their work and incorporated “a greater degree of refinement than actually specified.” The bridge would not be completed at the time the road and tunnel were dedicated, and the company finished with a \$21,000 loss.<sup>63</sup> However, the Pine Creek Bridge would be the final and fitting capstone of the Zion-Mount Carmel Highway.

The dedication for the Zion-Mt. Carmel Highway took place on July 4, 1930. Not only was it Independence Day, but the State Governors Conference had recently wrapped up in Salt Lake City and the date was chosen so many of the governors could attend. Tour buses from the Utah Parks Company brought the governors and other dignitaries to Zion the night before where they stayed at the company’s lodge that replaced the old Wylie Camp.

The following morning a crowd of over 1,000 attended the dedication ceremonies, where a stage was set up in front of the first gallery of the tunnel. Zion’s superintendent, E. T. Scoyen, acted as host and Horace Albright as master of ceremonies. Albright had succeeded Stephen Mather as National Parks Director the previous year after Mather’s health forced him to retire. Mather had died on January 22, 1930, and therefore was unable to witness the completion of the road he was so instrumental in creating.

Utah Governor George Dern spoke about the significance of having many of the nation’s governors in attendance at the event, “Their presence here is emblematical of the interest of all

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<sup>62</sup>Alma Hirschi, interview with Donald T. Garate, Virgin, Utah, 7 December 1987, Collected Research concerning Zion-Mt. Carmel Highway, ZNHA.

<sup>63</sup> “Final Construction Report,” 59-63.

the states in this national project.”<sup>64</sup> Both the speeches of Governor Dern and B. J. Finch, who first surveyed the road with Howard Means, emphasized the significant tourism increase to Utah and the West as a result of the road. On this point Dern stated:

These areas of outstanding beauty are chiefly valuable for their recreational uses. We do not need nor want them as playgrounds for our local people alone. We are happy that they have been set aside for the enjoyment of all who may be attracted by their charms. They are the show places of our nation, in which every American holds a share of ownership. While Zion National Park and Bryce Canyon National Park happen to be situated within the boundaries of the State of Utah, yet we are proud to share our ownership of these natural marvels with all the rest of our fellow Americans, and we say to them, “Come out and inspect your property. You will be proud of it, and your pride of ownership will make you a better, more patriotic American in the best sense.”<sup>65</sup>

Finch also noted the several different parties that came together to make the road a reality. Noting these accomplishments he said, “This route, twenty five miles in length, from Zion Canyon to Mt. Carmel junction shows what can be done by cooperative effort.”<sup>66</sup> Finch gave the overall cost of the entire road, which illustrated how dependent Utah was on federal assistance. The near \$1.5 million portion within Zion’s boundaries was paid for entirely with federal dollars; the tunnel, which only comprised 1.06 miles of road, cost \$503,000 alone. The portion of the road outside of the park’s east entrance, which cost \$456,000, was a primary responsibility of the state; however, federal dollars paid for \$358,000 or 78.5 percent. The state was only left with a \$98,000 bill to pay. The overall cost of the project when completed was estimated at \$1,896,000.<sup>67</sup>

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<sup>64</sup> George H Dern, Address at Dedication of Zion-Mt. Carmel Highway, 4 July 1930, Collected Research concerning Zion-Mt. Carmel Highway, ZNHA.

<sup>65</sup>Dern, Address.

<sup>66</sup> B. J. Finch, Address at Dedication of Zion-Mt. Carmel Highway, 4 July 1930, Collected Research concerning Zion-Mt. Carmel Highway, ZNHA.

<sup>67</sup>Finch, Address.

Though perhaps one of the most expensive roads per mile built anywhere in America at that time, the highway's construction was only a piece of an even larger influx of investments made to develop Zion National Park and the entire region during the 1920s and 1930s in order to make it suitable for a massive tourism industry. In addition to the road, the Park Service made massive developments within the Park, including campgrounds, parking lots, and trails. Some of Zion's most popular trails were built during this time, including the Angels Landing Trail and Gateway to the Narrows Trail. The Angels Landing Trail ascends a 1,500-foot sandstone monolith over a 2.4 mile trail to a point where it is said only angels would dare to land. Those adventurous enough to make the trip are rewarded with a spectacular aerial view of Zion Canyon. Springdale resident Walter Ruesch, who acted as the Park's custodian until the appointment of E. T. Scoyen, designed much of the trail which was built in 1925, including a series of twenty-one switchbacks, reinforced with extensive masonry work, which are affectionately named "Walter's Wiggles."<sup>68</sup> The Gateway to the Narrows Trail is a one-mile paved walkway that extends from the end of Zion Canyon Road at the Temple of Sinawava along the Virgin River until the canyon becomes so narrow the river leaves no room for a trail. The paved trail took only a month to build, but also involved an extensive amount of masonry work for retaining walls.<sup>69</sup>

Union Pacific also poured in hundreds of thousands of dollars in park development in order to protect its investment with the Utah Parks Company. At the time the Park Service and the Union Pacific agreed to build the Zion-Mt. Carmel highway in 1927, Randall Jones announced that the Union Pacific would spend \$500,000 to construct lodges in both Zion and

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<sup>68</sup> "What's in a Name? History," *A Century of Sanctuary 1909-2009: Zion National Park Official Centennial Newspaper*, (National Park Service, Department of Interior, 2009), 3.

<sup>69</sup> Superintendents Monthly Reports, July-August 1929.

Bryce Canyon.<sup>70</sup> Portions of the Zion Lodge were built near the Wylie Camp in 1925, and in the winter of 1928, Union Pacific hired 75 men to make \$100,000 dollars in improvements, including new deluxe cabins, and water storage tanks.<sup>71</sup> Between 1919 and 1941, historian Wayne Hinton estimates, the Union Pacific spent \$1,713,000 in developments and advertising related to the Utah Parks Company within Cedar City, Zion, Bryce Canyon and the Grand Canyon.<sup>72</sup> The Arrowhead Trail Association was also involved in promoting road improvements and paving along the Arrowhead Trail in Washington County, as well as other roads that led to Zion and other tourist destinations.<sup>73</sup>

During that same period between 1919 and 1941, the federal government spent \$5,024,261 in developing Zion National Park, the majority on road and trail construction and maintenance. Washington County's population in 1940 was 9,269, making the per capita spending by the federal government for Zion about \$542 per person. Hinton noted that much of the money went directly into the local economy through wages and purchases.<sup>74</sup> New Deal projects involving the Civilian Conservation Corps and Public Works Administration accounted for \$638,016 in federal spending. Zion was a desirable place for the CCC to establish camps since the mild climate allowed work to be done year round. J. L. Crawford, who, as locals would say, never really got Zion's red sand out of his boots, joined the CCC and was involved in several projects that constructed buildings and other mason work improvements. Others were

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<sup>70</sup> "U.S. Will Spend \$1,000,000 on Park Roads in Utah: U.P. to Put \$500,000 into Zion and Bryce Lodges," *Salt Lake Tribune*, 17 April 1927.

<sup>71</sup> Superintendents Monthly Reports, November 1928, January 1929.

<sup>72</sup> Hinton, "Getting Along," 328.

<sup>73</sup> Edward Leo Lyman, "The Arrowhead Trails Highway: The Beginnings of Utah's Other Route to the Pacific Coast," *Utah Historical Quarterly* 67, no. 3 (Summer 1999), 242-264.

<sup>74</sup> Hinton, "Getting Along," 329-330; U. S. Census Bureau, *Sixteenth Census of the United States: 1940: Population Volume I: Number of Inhabitants* (Washington, D.C.: Government Printing Office, 1942), 1083.



involved in plant and wildlife control, fire prevention, water reclamation, constructing an outdoor amphitheater, and building parking lots and trails for several Zion landmarks including the Great White Throne, East Rim Overlook, Weeping Rock, and the Court of the Patriarchs.<sup>75</sup>

The Zion-Mt. Carmel Highway proved not only expensive to build, but expensive to maintain. CCC employees were dispatched to fine-grade the road, remove loose rocks and plant vegetation to prevent erosion along the talus slope switchbacks leading to the tunnel. In 1941, two landslides dammed the river and washed out hundreds of feet of road near the Virgin River Bridge. The CCC spent a considerable amount of time and effort to restore the road and prevent future damage.<sup>76</sup> In 1936 and 1937, Reynolds-Ely Company was hired to do \$250,000 in renovation and improvement work on the tunnel, mostly involving an extension and reinforcing the walls with steel and concrete.<sup>77</sup>

Road development finally connected these desert communities to outside markets that not only made their existing agricultural economy more lucrative, but, with the establishment of Zion National Park, also laid the foundation for the region's important tourism economy. Many local government officials and private citizens actively participated in road improvements and the development of Zion National Park and often took it upon themselves to attract capital from government and private investors to fund the development of the tourism infrastructure. These

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<sup>75</sup> Wayne K. Hinton and Elizabeth A. Green, *With Picks Shovels and Hope: The CCC and Its legacy on the Colorado Plateau* (Missoula, MT: Mountain Press, 2008), 177-184; J. L. Crawford, interview by author. For more information on the Civilian Conservation Corps in Utah see Kenneth W. Baldrige, "Nine Years of Achievement: The Civilian Conservation Corps in Utah" (Ph. D. dissertation, Brigham Young University, 1971) and Beth R. Olsen, "Utah's CCCs: The Conservators' Medium for Young Men, Nature, Economy, and Freedom," *Utah Historical Quarterly* 62, No. 3 (Summer 1994): 261-274.

<sup>76</sup> Hinton, *Picks Shovels and Hope*, 184; Garate, "The Zion Tunnel," 50-51.

<sup>77</sup> "Final Construction Report on Zion National Park Highway Project: I-A2 and 3 (Supplemental Construction) Route No. 1: Zion National Park, Washington County, Utah, 1936-37," United States Department of Agriculture, Bureau of Public Roads, District No. 12, copy in Collected Research Concerning Zion-Mt. Carmel Highway, ZNHA.

included individuals such as Samuel Isom, Leo A. Snow, Randall Jones, John Winder, and Walter Ruesch. Once Zion and other scenic wonders along the Colorado Plateau captured national attention, several groups such as the National Park Service and Union Pacific Railroad stepped forward to invest in the public works programs. These projects became vitally important for the local economy when a depression following World War I merged into the Great Depression that crippled the nation's economy. Millions of dollars in funding provided jobs and stimulated spending in local communities.

This funding, however, further made these communities co-dependent on outside markets and capital to sustain their economy. Tourism, particularly, is continually dependent on outsiders coming to visit Washington County. This was a risk these communities were willing to make since some communities' survival was in the balance. Springdale, for example, had been on the verge of collapse after years of flooding, eroding farm land, and finally the completion of the Hurricane Canal enticed many to relocate to more sustainable communities. Other surrounding communities, such as Grafton, became ghost towns in the first decade of the twentieth century. The prediction Dellenbaugh made to Springdale's bishop Oliver D. Gifford that he would live to see a big hotel and a good road through Zion Canyon proved to be accurate as tourism became Springdale's salvation. J. L. Crawford recalled that once the Zion-Mt. Carmel Highway was completed businesses began to be established in Springdale.<sup>78</sup> The expensive developments in Zion during these depression years immediately attracted new visitors. The year Zion became a national park, visitors numbered only 3,692. In 1924, one year after the Union Pacific extended their rail line to Cedar City and started the Utah Parks Company that number more than doubled to 8,400. The year the Zion-Mt. Carmel Highway was

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<sup>78</sup> J. L. Crawford, interview by author.

completed saw a major jump in attendance as 55,297 visited the park, up from 33,383 the previous year. Numbers reached 190,016 in 1941 before World War II and gas rationing caused a major drop in tourist travel.<sup>79</sup> With the establishment of Zion National Park and the development of major roads during the 1920s and 1930s, Washington County transformed the economy from struggling agricultural industries to a more lucrative tourism destination.

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<sup>79</sup> U.S. Department of the Interior, National Park Service, National Park Service Public Use Statistics Office, "Zion National Park, Annual Park Visitation Report," National Park Service, <http://www.nature.nps.gov/stats/viewReport.cfm>, accessed 1 July 2010.

## CHAPTER V

“A VERY IMPORTANT PART OF THE BUILDING OF THE WEST”:

HERITAGE AND THE FUTURE OF PUBLIC WORKS

IN WASHINGTON COUNTY

Long after the public works projects were completed in Washington County they continued to have value to the communities of which they were a part. These projects not only stimulated the local economy by providing jobs and an influx of outside capital, they continued to have both economic and cultural value many decades after their completion. Because of their economic and cultural value, many of these projects received the continued labor and capital necessary to repair, maintain and restore them. Local agencies petitioned government officials as well as other groups to provide the funding and support necessary for preservation. Even the stories of these projects’ construction lived on through reenactments and historical markers so that rising generations remembered and appreciated their cultural significance. Some of these projects provided the infrastructural foundation that allowed Washington County communities to have greater security and control over their economic future. Although Washington County has enjoyed expansive growth since the Great Depression, particularly in recent years, the importance of public works projects continued even down to the latest economic recession that began in 2008.

By the time the Great Depression hit, the St. George Tabernacle was rapidly deteriorating due to years of prolonged use and insufficient maintenance. Only token efforts to repair the building were made prior to the 75<sup>th</sup> anniversary celebration of the first Mormon colonizers settling in St. George. The Tabernacle was filled to capacity from September 3-5, 1936, with some of St. George’s oldest living settlers and their descendants who were treated to speeches

from Church President Heber J. Grant and Utah Governor Henry H. Blood.<sup>1</sup> Two years later, however, the building's constant use and lack of upkeep finally took its toll. The official church records record on September 30, 1938:

The Tabernacle ceiling has fallen down from the north-west part of the building. It seems there may be more that will have to come down before the building can be used for meetings as usual.<sup>2</sup>

As a result of the ceiling's collapse, the main hall of the Tabernacle remained dormant for over two months and the local congregation that used the Tabernacle held church meetings in the basement.<sup>3</sup> For those who were a part of the 75<sup>th</sup> anniversary celebration it must have been heart rending to watch the building begin to crumble. Not willing to leave their building condemned, Church leaders arranged for an inspection to evaluate the damage and determine the cost for repairs. On January 8, 1939, the *Salt Lake Tribune* recorded:

Raymond J. Ashton, Salt Lake City architect, Saturday had inspected the St. George L.D.S. stake tabernacle, to recommend repairs necessary before the building can be used for meetings.

One of the historic landmarks of the state, the brick structure has been deemed unsafe for several months, after large areas of plaster separated from the walls.

"This is one of the finest structures of the L.D.S. church, architecturally speaking," Mr. Ashton commented. "It is more than a local building. It is a shrine to the whole church, and should be preserved intact."

Based upon Mr. Ashton's recommendations, repair work will begin immediately.<sup>4</sup>

Later that year the *Deseret News* reported that \$10,000 would be used for immediate repairs of the Tabernacle. The same report justifies the cost of repairs by pointing to the building's cultural

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<sup>1</sup> David H. Morris, Journal, 3-5 September 1936, 124-25, Church History Library, The Church of Jesus Christ of Latter-day Saints, Salt Lake City, Utah (herein CHL).

<sup>2</sup> Saint George Stake Reports, 30 September 1938, quoted in Saint George Manuscript History, 1938, CHL.

<sup>3</sup> Saint George Stake Reports, 30 September 1938.

<sup>4</sup> "St. George Building Gets Inspection," *Salt Lake Tribune*, 8 January 1939.

value, “Erected between 1863-1871, this building has stood as a monument to the pioneers and as a tribute to the architecture used by the founders of Utah’s Dixie.”<sup>5</sup>

What began as a simple repair project, expanded to a more expensive six-year-long renovation to restore the edifice. Because the Tabernacle was valued by the entire community, not just local Mormons, the Stake Presidency called a meeting with business representatives to collect funds for further renovation and new furniture.<sup>6</sup> One of the immediate concerns was a problem that had plagued the original builders of both the Tabernacle and Temple. As Elizabeth Kane had observed in 1873, water seepage was causing the foundation to settle. As a result, a new drainage system needed to be developed to prevent water from further settling the foundation.<sup>7</sup> The cost of procuring and hauling the gravel to the Tabernacle fell upon the local congregations in St. George as well as the surrounding communities of Santa Clara and Washington.<sup>8</sup> As a solution, Raymond Ashton proposed that “Drains would be put in the area around the building to care for the water as well as preparing footings and foundation with cement plaster, tar paper and tar coats.”<sup>9</sup>

The extensive renovation of the Tabernacle made the building sound for future generations. When the work was finished, not only was the crumbling ceilings and sinking foundation repaired, but other important changes had taken place as well. The electrical wiring was modernized, and new lighting and sound systems were installed. Carpets and pews were also replaced. The landscaping was updated and a sprinkler system was installed. The interior and

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<sup>5</sup> “St. George Repairs Edifice,” *Deseret News*, 27 October 1939.

<sup>6</sup> Saint George Stake reports, 30 June 1940.

<sup>7</sup> Saint George Stake Manuscript History, 26 January 1942.

<sup>8</sup> Saint George Stake Manuscript History, 23 March 1942.

<sup>9</sup> Saint George Stake Manuscript History, 10 July 1944.

exterior were also restored with new coats of paint and dressing stones. When the stairs were restored, workers discovered “a greenish, mineral stained ‘Essence of Jamaica Ginger’ bottle” containing Charles Walker’s poem praising the original workers of the Tabernacle.<sup>10</sup> The restoration work on the Tabernacle was financed and carried out in similar fashion to the building’s original construction, with labor and supplies often volunteered from local communities and subsidized from Church Headquarters in Salt Lake City.

The St. George Temple also underwent extensive renovation about the same time as the Tabernacle. Before the Great Depression, there were a few renovation projects to the Mormons’ sacred edifice. The first renovation of the Temple occurred only a year after its completion. Lightning struck the Temple’s steeple which started a fire in the early morning hours of October 16, 1878. Fortunately, only the steeple was damaged and it was shortly thereafter replaced with a taller, more prominent tower.<sup>11</sup> A small restoration of the Temple also occurred in 1903. Many of the local Relief Society women were involved in cleaning the building’s interior and cracks on the plastered exterior were filled with gypsum.<sup>12</sup> On November 28, 1928, a fire that began in a coal-powered boiler destroyed the Temple annex. Luckily, nearby residents were able to preserve the main Temple, as well as records and furniture.<sup>13</sup>

A more extensive renovation of the St. George Temple and the surrounding area took place between 1937 and 1939. Just like the Tabernacle, new electrical wiring and light fixtures

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<sup>10</sup> “A Story from the Past,” *Deseret News*, June 8, 1948. For the poem in its entirety see the appendix.

<sup>11</sup> Janice Force DeMille, *The St. George Temple First 100 Years* (Hurricane, Utah: Homestead Publishers, 1977), 85-86. Local legend suggested that Brigham Young did not approve of the original tower; therefore many believed providential intervention caused the lightning strike that destroyed the tower. See “Brigham Got His Way,” *Color Country Spectrum* (St. George), 13 April 1877, quoted in DeMille, *First 100 Years*, 87-88.

<sup>12</sup> DeMille, *First 100 Years*, 88-89.

<sup>13</sup> Saint George Stake Historical Report, 31 December 1928, Saint George Stake Manuscript History, CHL; Articles from *Deseret News*, 20 November 1928 and *Salt Lake Tribune*, 21 November 1928, quoted in DeMille, *First 100 Years*, 89-91.

were installed, including a beautiful, large chandelier that was hung in the Celestial Room. New landscaping was also completed throughout the Temple grounds and surrounding streets.

Temple President Harold Snow recalled, “We used local mechanics as much as we could” since local residents were resentful of outside help. But when more specialized skills not found in surrounding communities were needed for the renovation, they were brought in from the outside.<sup>14</sup> Among the most extensive work during this renovation was a complete resurfacing of the building’s exterior. In addition, the assembly room on the second floor was partitioned into smaller rooms and an elevator was added.<sup>15</sup> Church stakes throughout southern Utah, eastern Nevada and the Arizona Strip within the Temple’s district built and furnished six cottages with four apartments apiece, which housed temple patrons who needed accommodations for extended periods. These stake leaders pooled their resources and provided the labor to construct the \$20,000 cottages.<sup>16</sup>

Another, more extensive renovation of the Temple took place in the 1970s to prepare the edifice for its one-hundredth anniversary. Much of the renovation was focused on making the Temple accessible to larger crowds. The Visitor’s Center on the Temple grounds was remodeled to double the floor space. A ninety-seat theater was built to present films and lectures concerning the Temple as well as the Mormon Church in general.<sup>17</sup> In an eighteen month renovation of the Temple itself, a new annex and entrance were added to the north side of the building. The total renovation added 53,195 feet of floor space, which included a new chapel,

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<sup>14</sup> Harold S. Snow, “Biography of Harold Stafford Snow,”(unpublished manuscript, St. George, Utah, 1977) quoted in DeMille, *The St. George Temple First 100 Years*, 92.

<sup>15</sup>DeMille, *The St. George Temple First 100 Years*, 91.

<sup>16</sup>Saint George Stake Historical Report, 31 March 1940; Kirk M. Curtis, “History of the St. George Temple” (master’s thesis, Brigham Young University, 1964), 132-133; DeMille, *First 100 Years*, 93.

<sup>17</sup>DeMille, *First 100 Years*, 105-106.



offices, laundry facilities, cafeteria, as well as a new bride's room and four new sealing rooms for marriages.<sup>18</sup>

Reenactments and other historical observances were also held in conjunction of the Temple's centennial and renovation. These observances illustrated the cultural value the Temple had on the entire region surrounding St. George, as well as the history of the West. On November 8, 1971, 375 individuals piled into 75 vehicles to retrace the trail teamsters took from sawmills on Mt. Trumbull to the St. George Temple, where lumber was hauled to the Temple site. Nearly a century later, little remained except "some vestiges of the sawmill...and a few of the square nails used in the mill." The Bureau of Land Management placed 93 markers to retrace the original road built a century before. An informational sign was also placed at the sawmill's former location on top of Mt. Trumbull. Garth M. Colton, a BLM agent from St. George, stated that the reason for the markers, "We felt this temple trail was a very important part of the building of the West, and the kind of people who settled in this area."<sup>19</sup> Pipe Springs National Monument, the home of Anson P. Winsor's dairy herd, also reenacted their role in the Temple's construction. From September 10-13, 1975, National Park representatives followed the old Honeymoon Trail in two wagons where they delivered homemade cheese and butter to the St. George Temple, just as Winsor had done for the original temple workers.<sup>20</sup>

The recently completed Towne Square Park was designed to revitalize the area around the St. George Tabernacle. The nearly \$6 million dollar project involved cooperation of city and

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<sup>18</sup> "St. George Temple Rededication Planned," *Ensign*, July 1975, 78, also quoted in DeMille, *First 100 Years*, 110-111.

<sup>19</sup> "Timber Trail to Temple Shows Pioneer Stamina," *Church News Section, Deseret News*, 13 November 1971, also quoted in DeMille, *First 100 Years*, 103-104.

<sup>20</sup> *Color Country Spectrum*, September 1975, quoted in DeMille, *First 100 Years*, 111-112. DeMille does not provide the headline or precise date of the article.

county governments as well as the local school district. The entire park is a celebration of the history of St. George and all of Washington County. The park's main feature is a water walk that is lined with sandstone, which pays homage to the pioneer irrigation canals. The shallow canal and adjacent fountains have become a popular location for children and parents to escape the hot desert sun. An outdoor amphitheater and parade grounds were also fashioned in order for the city to host large celebrations and festivals throughout the year. Statues of many of the early builders of the county are featured throughout the park, including Erastus Snow and Robert Gardner, the miller who built the Mount Trumbull saw mill. A large tower rising above the fountain and canal includes stained glass windows featuring scenes from St. George's history. Along with the Tabernacle, the park is surrounded by several other historic looking, red-sandstone buildings including the original Dixie College building as well as the newly dedicated library and county courthouse. City officials hoped the park would revitalize the historic area around the Tabernacle. St. George Mayor Daniel D. McArthur, a descendant of St. George's founders, stated, "Anytime you have a vibrant, functioning downtown, where people are there, busy and enjoying themselves, it's a big draw for business." He continued, "We wanted this to be an inviting area for people to come with their families and to spend money downtown. We wanted the Water Walk to be a hands-on exhibit, where kids could touch the bronze statues and learn more about our history."<sup>21</sup> The investment made by these local groups to preserve the historical heritage of the area around the Temple and Tabernacle speaks to the cultural and economic value these buildings continue to have more than a century after they were built.

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<sup>21</sup> "St. George Touts Town Square Project," *Deseret News*, 30 October 2007; "Water Walk, Town Square to Honor St. George Past," *Deseret News*, 1 November 2005; "St. George Rediscovered Its Soul in Heart of Town," *Salt Lake Tribune*, 11 November 2009.

Just as the Temple and Tabernacle had important significance to the people of St. George, the Hurricane Canal became an important landmark to Hurricane's citizens. The flow of water from the canal remained the lifeblood of Hurricane up until the canal was closed in 1985.<sup>22</sup> Monitoring and maintaining the canal for the eighty years required constant vigilance. Canal riders walked across the canal every day on horseback, removing debris and looking for leaks. These canal riders were local residents who felt it a civic duty to watch over and protect the canal, since it was so vital to the community. Fern Demille recalled her father William Reusch, one of the canal riders, asking her mother, Marilla, for a piece of piece of cloth he could use to "chink up the holes in the wooden flumes."<sup>23</sup> Later, riders realized that pieces of juniper bark were more effective than cloth in fixing leaks, and were more resistant to decay.<sup>24</sup>

Canal riding had its dangers as well. Narrow trails along the side of the canal often forced riders to coax their horses along steep ledges, or leave them altogether. Several horses were killed from slipping off the edges or from being struck by falling debris.<sup>25</sup> Frank Lee, one of the canal riders and a member of the Hurricane Roping Club, tragically lost his life working as a canal rider when, on October 7, 1958, he lassoed a driftwood log which hit the heels of his horse. Frightened, the horse bucked off Lee and dragged him along the canal trail, breaking his ribs and puncturing a lung. Lee was replaced by his daughter Dixie, who was the only woman employed as a canal rider.<sup>26</sup>

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<sup>22</sup> Douglas D. Alder and Karl F. Brooks, *A History of Washington County: From Isolation to Destination*, 2<sup>nd</sup> ed. (Springdale, Utah: Zion Natural History Association, 2007), 185.

<sup>23</sup> Alice Gubler Stratton, *The Story of the Hurricane Canal* (repr., La Verkin: Rio Virgin Press, 1985), 17.

<sup>24</sup> Hurricane Valley Heritage Park & Museum Foundation, "Wood, Metal, and Concrete," historic marker, Historic Hurricane Canal Trail, Hurricane, Utah.

<sup>25</sup> Janice Force DeMille, *Portraits of the Hurricane Pioneers* (Hurricane, Utah: Homestead Publishers, 1976), 14.

<sup>26</sup> Stratton, *Hurricane Canal*, 18; DeMille, *Portraits*, 184.

While flood waters did not have the devastating effect they had while Hurricane's residents lived on the banks of the upper Virgin, the river's dramatic changes did cause some flooding and bank erosion of the canal, necessitating constant repairs and improvements. Over time, the canal bed was reinforced with concrete and the wooden flumes were replaced with more stable and impermeable steel flumes. These repairs made the canal sounder and limited the need for future repairs.

Though the canal has remained dry for a quarter century, the story of its construction continues to flow among Hurricane's residents. Victor Hall, whose grandfather Alfred Hall worked on the canal, stated that the canal gave the city an identity and a common purpose and those who worked on it were still considered heroic. Hall recalled that during Peach Days, the town's annual celebration, James Jepson would speak about the canal's history up until his death in 1958. A play was also performed that reenacted the story of the canal.<sup>27</sup> Today, hikers can follow the path of the Hurricane Canal as it meanders along the bench, across flumes and through tunnels. The trail begins at the point where water first spilled into the Hurricane Valley on August 6, 1904. The Hurricane Heritage Park Foundation and the Sons of Utah Pioneers have included several interpretive markers at the trailhead to honor the canal builders.

Providing water to the thirsty arid landscape also required further investment by Enterprise. Not long after the Enterprise Dam was completed, insufficient water made another dam necessary. Beginning in 1920, a survey for a new dam one mile below the original Enterprise Dam was made. The emerging depression apparently made it difficult to raise the necessary capital for this project. Initially, the Enterprise Company increased their capital stock by 1,000 shares with a par value of \$25 per share. When this failed to raise enough capital to

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<sup>27</sup> Victor Hall, interview by author, 11 August 2009, Hurricane, UT.

build the lower dam, the company borrowed \$10,000 from Deseret Savings Bank. Slow progress caused the company to fall behind on their payments. Enterprise officials contacted Anthony Ivins, whose \$7,500 investment for the first dam helped finish the project, for additional aid; however, this time Ivins denied their request. After two additional loans, the first an additional \$10,000 from John M. Pulsipher and five years of labor from the Enterprise Company, the forty-six foot tall lower dam was completed.<sup>28</sup>

The two reservoirs, as well as the discovery of an aquifer in the nearby Escalante Valley, had a tremendous impact on the town's agricultural production.<sup>29</sup> Several large farming concerns came to Enterprise. During the 1940s two Jewish brothers, Maurice and Herbert Zuckerman, turned a sagebrush wilderness north of town into what they termed, "the world's largest potato farm." At its peak, the Zuckerman farm employed over a hundred workers, most of them seasonal jobs, and shipped 125 trainloads of potatoes out of the rail station at Modena, just over the border of Iron County.<sup>30</sup> In addition to potatoes, alfalfa, grain and livestock have proven to be profitable as well, with some of Enterprise's produce shipped internationally. Paul Reeve noted that in 1980 over a third of Enterprise's labor force was involved in agriculture.<sup>31</sup> While the further availability of water increased Enterprise's agricultural production, by 2000 the town's population only stood at a modest 1,285.<sup>32</sup>

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<sup>28</sup>W. Paul Reeve, *A Century of Enterprise: The History of Enterprise, Utah, 1896-1996* (Enterprise, UT: The City of Enterprise, 1996), 146-148.

<sup>29</sup>Reeve, *Century of Enterprise*, 180.

<sup>30</sup>Reeve, *Century of Enterprise*, 185-186.

<sup>31</sup>Reeve, *Century of Enterprise*, 180.

<sup>32</sup>State of Utah, Governor's Office of Planning and Budget, Demographic and Economic Analysis, "Census 2000: 235 Utah Cities Ranked by Land Area and Population Density," p. 2, <http://www.governor.utah.gov/dea/Rankings/Cities/00CityDensity.pdf>, accessed 15 June 2010.

A couple of historic markers have been placed in Enterprise to honor Orson Huntsman and those who built the reservoir and town. At the local Mormon Chapel near the center of town the Daughters of Utah Pioneers placed a historic marker to the first Enterprise settlers.<sup>33</sup> At Enterprise's Pioneer Park a monument honoring Orson Huntsman was erected in 1996 stating, "Thanks to his vision and unending determination; the dream of a reservoir and city, now called Enterprise, became a reality." Visitors can also read several quotations from Huntsman's journal regarding the construction of the dam and the town he helped create. The monument ends with a challenge to those who read it, "They did so much with so little; what will we do with so much?"<sup>34</sup> These monuments illustrate the appreciation residents of Enterprise, like Hurricane, had for those who brought water to the area.

Even more than a century after the Hurricane Canal and Enterprise Dam were built, water continues to be a vital resource that determines the amount of growth Washington County is able to sustain. Over time larger reclamation projects were built to accommodate Washington County's burgeoning population. The Kolob Reservoir, completed in 1954 on a terrace just a few miles north of Zion National Park was built by the Hurricane Canal Company and St. George and Washington Canal Company to provide extra water storage for those cities. The Gunlock Reservoir, built on the Santa Clara River northwest of St. George, was finished in 1970 at a cost of \$1 million. When local officials failed to garner federal aid for the Gunlock project, city governments and local irrigation companies banded together to garner funding from the state of Utah.<sup>35</sup> The Quail Creek and Sand Hollow Reservoirs, completed in 1985 and 2003

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<sup>33</sup> "Enterprise," Utah Markers and Monuments Database, [http://history.utah.gov/apps/markers/detailed\\_results.php?markerid=1632](http://history.utah.gov/apps/markers/detailed_results.php?markerid=1632), accessed 5 July 2010.

<sup>34</sup> "Enterprise Pioneer Park," Utah Markers and Monuments Database, [http://history.utah.gov/apps/markers/detailed\\_results.php?markerid=3303](http://history.utah.gov/apps/markers/detailed_results.php?markerid=3303), accessed 5 July 2010.

<sup>35</sup> Alder and Brooks, *History of Washington County*, 192-195.

respectively, lie just west of Hurricane City. These last two reservoirs have stored an additional 50,000 acre feet of water and have encouraged dramatic growth in the area between Hurricane and St. George. Quail Creek was proposed by Creamer and Noble Engineers in St. George. Though the county no longer uses cooperative irrigation companies, Quail Creek provides evidence that the cooperative culture still lingers in Utah's Dixie since local funding was provided through a voter-approved bond of \$20 million. Additional funds were provided by applying for state aid, just as the Gunlock project had done. The city of St. George soon benefited from Quail Creek through contracting the power from the hydroelectric generators and receiving a lease for 10,000 acre feet of water from a water treatment plant built near the dam, which at the time more than doubled the city's water supply.<sup>36</sup> About the time that Quail Creek's construction was completed, the last waters ran down the Hurricane Canal. The canal's demise became inevitable as water was brought to the city through these new reservoirs and pipelines.

As the population of Utah's Dixie continues to grow, new public works are proposed to bring water to the region, including a 174-mile pipeline that would divert water from Lake Powell to Sand Hollow Reservoir and then to Cedar City. Current estimates believe the pipeline would not be completed until 2020, and could cost over \$1 billion, though some of the costs could be defrayed by developing hydro-electric generators along the pipeline's length. Final approval for this project is on hold as environmental impact studies and negotiation of land access through federal and American Indian tribal lands are ongoing.<sup>37</sup>

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<sup>36</sup> Alder and Brooks, *History of Washington County*, 195-198; Douglas D. Alder, "Utah's Recent Growth: The St. George/Washington County Example," *Utah in the Twentieth Century*, Brian Q. Cannon and Jessie L. Embry, eds. (Logan, Utah: Utah State University Press, 2009), 396.

<sup>37</sup> "Powell Pipeline Estimated at \$1 Billion," *Deseret News*, 19 July 2008; "Powell Pipeline Has Already Cost State \$3.3 Million," *Deseret News*, 26 April 2008.

Just as the other significant public works projects in the county's history, the Zion-Mt. Carmel Highway, including its tunnel, has required some expensive upkeep. The sandstone cliffs weathered by centuries of erosion, for which Zion is famous, have also shown at times how fragile and ever changing the environment still is. During the early morning hours of April 28, 1958, eighty-thousand cubic feet of rock and debris collapsed from the cliff side and spilled into the Zion Tunnel, damaging one of the tunnel's galleries. This collapse closed the tunnel for several weeks while extensive work on additional reinforcements made the tunnel safe for traffic. To protect the tunnel from future landslides and cave-ins, the Park Service has installed electric sensors throughout the tunnel walls to detect any movement or instability.<sup>38</sup> Another landslide on April 12, 1995 dammed the Virgin River and seriously damaged the road through Zion, stranding 400 people inside the park.<sup>39</sup> These natural disasters show how the fragile desert landscape has made road improvements a constant struggle.

The Zion-Mt. Carmel Highway did achieve its primary purpose in attracting tourists to Zion National Park as well as connecting it with other nearby scenic wonders. Since Zion became a national park, attendance has grown at an almost exponential rate. Zion was the seventh most visited National Park in 2007 with nearly 2.7 million visitors. The Grand Canyon and Bryce Canyon also have enjoyed large attendance numbers, with over four million and one million annual visitors respectively.<sup>40</sup> Accommodating such large crowds has been a challenge

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<sup>38</sup>Donald T. Garate, "The Zion Tunnel: From Slickrock to Switchback,"(unpublished manuscript, Zion Natural History Association, Zion National Park, Springdale, UT, 1989),51-52.

<sup>39</sup> "Slide Washes Out Road, Strands 400 at Lodge," *Deseret News*, 13 April 1995.

<sup>40</sup> U.S. Department of the Interior, National Park Service, Office of Communications and Public Affairs, "National Park System Attendance Rises in 2007," National Park Service News Release, 26 February 2008, <http://home.nps.gov/applications/release/Detail.cfm?ID=785>, accessed 16 June 2010; U.S. Department of the Interior, National Park Service, Public Use Statistics Office, "(Bryce Canyon National Park, Grand Canyon National



for the National Park Service. During the 1990s, park attendance began to rise to over two million annually, with 3,000 vehicles a day trying to cram into only 450 parking spaces along a six mile stretch of Zion Canyon. Large crowds and tremendous traffic threatened the delicate environment and general atmosphere of Zion. Several proposals for further development were presented including widening the road and adding parking spaces, but, as Zion spokesman Denny Davies explained, “one of the primary reasons that any national park has been established is to preserve and protect the resources that are there. So if you start carving away the hillside to make parking lots, you're going at cross purposes.”<sup>41</sup>

Instead of more public works projects, the National Park Service’s solution was a \$28 million investment in a mandatory shuttle that runs during the park’s peak times between April and October, which began operating in 2000. The Park Service boasts that the propane-fueled buses restore the peace and tranquility that the first visitors to the canyon enjoyed, as visitors are forced to leave their cars behind at the visitors’ center or in nearby Springdale. After only one year in service, Zion’s superintendent Marty Ott praised the shuttle system, “I couldn't be more pleased with the transportation system. It has helped restore Zion Canyon to the place of peace and beauty that Native Americans and Mormon pioneers must have marveled at ages ago.”<sup>42</sup>

Although the shuttle service was controversial at the time of its announcement, after a decade of service Zion praises its successes. One visitor submitted the comment, “The success of the system was reflected in the visitors we saw. Everyone looked stress-free from not having to fight for parking.” The shuttles run non-stop every seven minutes, with eight stops through

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Park, Zion National Park) Annual Park Visitation (All Years) Report,” <http://www.nature.nps.gov/stats/viewReport.cfm> (accessed 1 July 2010).

<sup>41</sup> “Peace, Quiet Return as Zion Bans Cars,” *Deseret News*, 24 May 2000.

<sup>42</sup> “Zion Park Officials Happy With Shuttle,” *Deseret News*, 12 November 2000.

Springdale, and eight more in the Park. The environmental impact is also worthy of acclaim as the 21 buses reduce carbon dioxide emissions by 5,082,254 pounds annually.<sup>43</sup>

The Zion-Mt. Carmel Highway is just one example of how roads have been vital to the development of Washington County. Perhaps the largest public works program in the entire nation had one of the greatest impacts on the county – the Interstate Highway. The Interstate Highway System was devised during the Eisenhower administration with the passage of the 1956 Federal-Aid Highway Act. Interstates have streamlined the way Americans travel as these large highways pass through nearly every major city in the country allowing travelers to push through the landscape at high speeds. Washington County did not see an Interstate until I-15 was completed in 1973. One of the most expensive sections of the Interstate connects St. George with Mesquite, Nevada, and was cut and blasted through the Virgin River Gorge along the northwest corner of Arizona. The original Arrowhead Trail meandered westward from St. George and Santa Clara over a pass known as Utah Hill, infamous for its snowstorms and fatal accidents. The Virgin River Gorge route bypassed this problem area, though it took over a decade and \$61 million to build. The vast majority of funding came from the federal government, while Utah ended up paying for a portion of the Arizona section. Local leaders were involved in the interstate’s planning through voicing their opinions on the proposed route to ensure I-15 did not disrupt important agricultural fields, but, more importantly, did not by-pass vital business centers. St. George was a big winner in the design of the freeway as two exits provided tourists access to the hotels and businesses within the city.<sup>44</sup>

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<sup>43</sup>U.S. Department of the Interior, National Park Service, Zion National Park, “Green Transit-The Zion Shuttle,” <http://www.nps.gov/zion/naturescience/green-transit-the-zion-shuttle.htm>, Accessed 15 June 2010.

<sup>44</sup> Alder and Brooks, *History of Washington County*, 299-301.

Long after Zion National Park was established, the development of roads and the promotion of tourism became a vital aspect of the entire county's economy. As funding for public works made the county dependent on outside capital, tourism made the county's economy dependent on outsiders coming in to patronize local businesses for the foreseeable future. Hotels, restaurants, and retailers are set up along the exits of I-15 and roads leading between St. George, Washington, and Hurricane. Several golf courses have also been built in the region, the first of which was the Red Hills course which was established in the mid-1960s on the location of the sandstone quarry for the St. George Tabernacle and Temple. The course was funded through a \$60,000 city bond.<sup>45</sup> St. George and her neighbors have also built several other buildings that attract visitors, including the Dixie Center convention hall and the Tuacahn Amphitheater at the mouth of Snow Canyon in Ivins.<sup>46</sup>

At the beginning of the twentieth century, the survival of Springdale was questionable. But in the first decade of the twenty-first century, the question is whether Springdale can support the growth sustained through its embrace of a tourism economy. Frederick Dellenbaugh imagined the day one hotel would be built in Springdale. By 2006, there were a dozen hotels and fifteen restaurants, along with several other retail stores and outdoor outfitters.<sup>47</sup> The two and a half million visitors that pass through little Springdale each year is equivalent to the entire population of Utah.<sup>48</sup>

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<sup>45</sup> Alder and Brooks, *History of Washington County*, 52, 297-299.

<sup>46</sup> Alder, "Utah's Recent Growth," 391; Alder and Brooks, *History of Washington County*, 373.

<sup>47</sup> Alder, "Utah's Recent Growth," 391.

<sup>48</sup> U. S. Census Bureau, "Utah Quick Facts," <http://quickfacts.census.gov/qfd/states/49000.html>, accessed 17 June 2010.

While the creation of I-15 has certainly increased tourism traffic and attracted several businesses which have increased the overall economy, some drawbacks to this growth also exist. Historian Susan Sessions Rugh, borrowing from the thesis of Hal Rothman's *Devil's Bargains*, notes that several locally owned motels throughout the county, particularly in St. George and Springdale, have over time been replaced with national chain hotels and motels. Rugh notes that several locally owned motels were unable to compete with national chains for a variety of reasons, including lack of business experience, aging appearance, and tourists' familiarity with national brands. Though some locally owned motels persist, several local business owners were forced to buy franchises from these national chains. Tourism has certainly become a lucrative industry for Washington County, but much of the potential wealth flows out to other areas of the country as southern Utah becomes more integrated into the national economy.<sup>49</sup>

The infrastructure developed by the several public works programs prepared Washington County for amazing growth from people attracted to the area's warm climate and beautiful scenery. The county's population in 1965, just over a century after the first settlements were established, was 10,600. By 1996 that number had grown to 72,900. The next decade saw the population nearly double to 130,000 in 2006. During that same year St. George was listed as the fastest growing metropolitan area of the United States.<sup>50</sup> Many of the new residents were retirees; however, a large portion was attracted by the tremendous opportunities associated with the growth by seeking jobs in construction and other services catering to the growing communities.

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<sup>49</sup> Susan Sessions Rugh, "Selling Sleep: The Rise and Fall of Utah's Historic Motels," *Utah in the Twentieth Century*, ed. Brian Q. Cannon and Jessie L. Embry (Logan: Utah State University Press, 2009), 65-87; Hal Rothman, *Devil's Bargains: Tourism in the Twentieth-Century West* (Lawrence: University Press of Kansas, 1998).

<sup>50</sup> Alder, "Utah's Recent Growth," 388-389.

Because Washington County's two main industries are construction and tourism, the recession of 2008 has hit the area particularly hard. Housing prices that appreciated at record rates during the first half of the last decade suddenly plummeted once the housing market burst. As income for Americans has dropped, so has the tourism market. Because these service industries continue to be important, Washington County needs to continue attracting outsiders to come to either live or visit.

Even today, St. George's economy relies heavily on public works funded through outside resources during times of economic turmoil. Washington County is currently amidst construction of its largest and most expensive public works project to date, a new \$160 million airport southeast of St. George. The original St. George airport is built on a bluff on the west side of town. Because of the limited space on the 274-acre mesa there is no room for expansion and the airport can only accommodate smaller aircraft. The runway of the old airport runs almost to the edge of the cliff, creating hair-raising experiences for pilots and passengers when they take off or land. Airport manager Rick Crosman joked, "It's been called the greatest thrill ride in southern Utah."<sup>51</sup> The new airport will be five times larger, developed on 1,250 acres, with a 9,300 foot runway to accommodate planes as big as Boeing 737s. The location is also ideal for future expansion, if necessary. The federal government will fund up to 80 percent of the airport, mostly through the Federal Aviation Administration. The city is expected to raise the other 20 percent by selling the land where the old airport sits, and through transient room taxes.<sup>52</sup>

Plans for a new airport have existed since the early 1990s, but were delayed because of concerns over the airport's impact on the environment and noise pollution over Zion National

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<sup>51</sup> "Airport Project in St. George Ahead of Schedule," *Salt Lake Tribune*, 8 October 2009.

<sup>52</sup> "St. George Hopes Future Soars with New Airport," *Salt Lake Tribune*, 8 March 2010.

Park. The Federal Aviation Administration issued an impact statement in 2000 stating that the noise levels over Zion would not be impacted, which was challenged by the Grand Canyon Trust a year later. Additional studies by the FAA have come to the same conclusion, and St. George officials have encouraged pilots to avoid flying directly over Zion to preserve the serenity of the park.<sup>53</sup> The airport is scheduled to open on January 13, 2011. City officials are trying to court both passenger and freight carriers to the new airport, though tourism seems to be a prime reason for investing in such a large project. St. George Councilwoman Suzanne Allen noted the new airport's long term importance to the area, "This is an economic catalyst. It will also provide jobs for residents and their kids."<sup>54</sup>

The economic recession that began in 2008 has also opened new avenues for federal funding that helped alleviate the city's financial burden for the airport's construction. The city was able to acquire a \$5 million grant to build a new terminal building for the airport as a result of the American Recovery and Reinvestment Act of 2009. A press release issued by the city of St. George on June 8, 2009 explains the impact this new stimulus money will have on the local economy:

All of this brings new hope to local job seekers. The airport program is estimated to provide job opportunities for as many as 100 different companies. The terminal construction alone will employ nearly 300 people; most of whom are local residents.<sup>55</sup>

The history of Washington County has proven that it is indeed the storms that bring life to the desert. On the surface, these communities appeared to be isolated and independent from the economic depressions that have plagued the country during the 1870s, 1890s and 1930s, but

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<sup>53</sup>"New Airport Soon in St. George?" *Deseret News*, 19 May 2006.

<sup>54</sup>"Ahead of Schedule," *Salt Lake Tribune*.

<sup>55</sup>City of St. George, "Replacement Airport Provides New Boost to Economy," Press Release, 8 June 2009, [http://www.sgcity.org/news/Boost%20to%20Economy%2006\\_08\\_2009.pdf](http://www.sgcity.org/news/Boost%20to%20Economy%2006_08_2009.pdf), accessed 28 June 2010.

the impact these depressions had on these small communities shows how connected even the most remote reaches of the west were with the rest of America. These periods of economic tumult, however, provided the motivation for the county's residents to pull together and seek aid to build the infrastructure that allowed them to weather future storms. The public works programs constructed during these depressions have, and in many cases still do, contribute to the region's economic stability and growth.

Certainly the construction of the Tabernacle and Temple fulfilled Brigham Young's vision of St. George becoming the religious and cultural hub of southern Utah. While this is particularly the case with the local Mormon population, these edifices, which still stand as the most prominent features on the city's skyline, as well as the area surrounding them, have become treasures for all city residents and visitors to enjoy. The Towne Square Park has attracted families and businesses alike to the city's historic center surrounding the Tabernacle while at the same time providing a public monument to the area's history. Likewise, reclamation projects and roads have also encouraged greater economic production and growth.

Each of these projects has also emphasized the importance of cooperation, as well as the dependency on outside sources of capital to support a growing economy. The public works programs required the efforts of all in the community. When cooperation was lacking, as was initially the case in Enterprise prior to the 1902 earthquake that destroyed Hebron, progress lagged. Each of these projects could not have been completed through local support alone, no matter how organized and well planned they were. Local leaders worked in conjunction with outside investors, whether they were church, government or business officials. The cooperation between local and outside groups through shared interests helped maintain control over these projects.

Though Washington County has enjoyed years of economic stability and incredible growth, questions still remain about the future. The county's economy is still reliant on outside sources of capital. Tourism, one of the region's most important industries, requires outsiders coming to visit in order for it to be successful. The recent recession has caused tourism travel to suffer in many areas. One of the motivating factors in the construction of a new airport is to provide another avenue of access for tourists. New ideas and projects, however, could also be embraced so the economy is not as dependent on tourism.

While early on many communities struggled to maintain their population, the recent explosion of growth has brought with it a new set of problems that will need to be addressed. The development of the tourism economy in Zion has been incredibly successful wherein even in a recession the National Park Service recorded a new attendance record for 2009, boasting 2,735,401 visitors.<sup>56</sup> While the shuttle service has been successful in curtailing vehicle traffic, the amount of visitors has caused a strain on the trails, local plants and wildlife, as well as the overall serenity of the Park. With the population nearly doubling in only a decade, Washington County must find new solutions to depleting water supplies, increased traffic, and environmental impacts on the delicate land and air. The reliance upon future, costly public works will only increase the region's dependency on outside funding, such as the proposed \$1-billion Lake Powell pipeline. During the early years, the survival of Washington County required public works during times of economic hardship. The future stability and continued growth of the county appears to demand a new set of public works in order to control the growth and diversify the economy so it can better weather changes in the economic climate.

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<sup>56</sup> "Zion National Park Attendance Breaks Record," *Deseret News*, 5 February 2010; National Park Service, "Zion ... Annual Park Visitation."



## APPENDIX

While revamping the steps of the historical red sandstone St. George Tabernacle recently, workmen uncovered an engaging page of early Latter-day Saint history.

A greenish, mineral stained “Essence of Jamaica Ginger” bottle was found imbedded in the thick mortar under the top step of the south entrance to the beautiful tabernacle.

On a closely rolled six-by-nine-inch sheet of yellowed-with-age paper, a short poem was inscribed by Charles Lowell Walker, along with the names of the workmen. Thus far, search of the well written journals of Charles Lowell Walker, covering the years of building the tabernacle, fails to reveal any mention of the bottle and the incident or the date of its having been deposited. However the entries would indicate the date as being around May 23, 1872. This would make the relic near 76 years old at this writing.

The clear penmanship could be that of James G. Bleak.

The attention of Harold S. Snow, president of the St. George Stake, was called to the find. At his suggestion, the bottle and scroll were presented to Mrs. Zaidee Walker Miles, daughter of the former Dixie poet.

With Mrs. Miles’ permission, R. D. Adams photographed the items before they were presented by her to the Daughters of Utah Pioneers for their exhibit in the McQuarrie Memorial Hall.

LaVellCottam, employed by Jennings and Jennings, contractors of St. George, was the first to find the quaint old bottle.

The little poem placed in the Jamaica Ginger bottle and buried in the mortar expresses the heavy toll of the early builders under their trying conditions, and their relief when flour was sent

by the good people of Sanpete who, according to the records, shared their own supplies to help those who were in greater need and were giving their time in building houses of worship:

Full seven long years  
We now have worked,  
And from our task  
Have never shirked;  
We have oft fared short,  
For many an hour,  
And now are fed  
On Sanpete flour.

We have labored long  
For many a year,  
This noble structure  
For to rear;  
And thus we've often  
Lacked for bread,  
"You've nobly worked";  
By all was said.  
Four hundred miles  
We haul our flour,  
To feed us in this trying hour;  
The Saints back north  
Have freely given,  
Thus laying treasures  
Up in heaven.

So now kind friends  
We say farewell,  
This house and steps  
Our works do tell,  
God will preserve  
And bless his own  
With life eternal  
And a crown.  
C. L. W., Poet

The names listed at the conclusion of the verses will awaken memories in the minds of the many descendants who still survive in St. George and vicinity.

They are:

Edward L. Parry, chief mason.

William Atkin, mason.

David Moss, tender.

George Brooks, stonecutter.

Joseph Worthen, stonecutter.

James Bleak, stonecutter.

William G. Miles, stonecutter.

Seth Pymm, commissary

Concerning the erection of the St. George Stake Tabernacle the Charles L. Walker “Journal” said . . . [journal excerpts follow from 1871-1872] . . . And thus from day to day, Charles L. Walker recorded the progress of work on the tabernacle and the first meetings in the main or assembly room, the basement having been in use for some time previously for at least some events.

Charles L. Walker’s writings express the feelings of most of the pioneers who regarded each call to service worthy of their response and best efforts:<sup>1</sup>

Sat 6<sup>th</sup> Pleasant. This morning, agreeable to previous appointment, the workmen that were engaged on the Temple Met at the Tabernacle where a Meeting of congratulations was held. Pres Snow called the Meeting to order and offered the opening prayer. The Choir sang some very pretty pieces. The Brass and string bands played some very good music, After which I sang the following song which I was solicited to compose on behalf of the Bretheren [sic] who had

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<sup>1</sup> “A Story from the Past,” *Deseret News*, June 8, 1948.

been working on the Temple. I was well received and all the congregation [of] about five hundred joined in the chourus assisted by the choir.

Song of the Temple Volunteers,  
(tune) Marching through Georgia.

Ye Saints throughout the mountains,  
Pray listen to my rhyme,  
Of a noble Band of Brethren  
Who came to Dixie's clime  
To build a Holy Temple,  
Just in a Stated time,  
As they were counselled by Brigham,

(Chorus) Hurrah! hurrahhurrah for Brigham Young.  
Hurrah for all the Noble Boys who've pushed the work along;  
God bless them in their labors, and all their lives prolong  
To build up Temples in Zion!

They left their homes and firesides,  
Responsive to the Call  
And labored hard and faithfull  
To rear the Temple wall.  
Their union and their oneness,  
Was seen and felt by all  
Who labored to build up the Temple.  
Hurrah &c.

They little think the work they've done,  
To glory it will lead,  
And be the mean of saving  
Some thousands of their dead;  
And bring eternal Blessings  
Of Heav'n upon their heads,  
And stand as Saviours in Zion  
Hurrah &c.<sup>2</sup>

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<sup>2</sup>*Diary of Charles Lowell Walker, 1:402-3.*

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