

to help develop policies for distribution of state-appropriated funds and plans for publication.

Each volume in the series reflects the scholarship and interpretation of the individual authors. The general guidelines provided by the Utah State Legislature included coverage of five broad themes encompassing the economic, religious, educational, social, and political history of the county. Authors were encouraged to cover a vast period of time stretching from geologic and prehistoric times to the present. Since Utah's statehood centennial celebration falls just four years before the arrival of the twenty-first century, authors were encouraged to give particular attention to the history of their respective counties during the twentieth century.

Still, each history is at best a brief synopsis of what has transpired within the political boundaries of each county. No history can do justice to every theme or event or individual that is part of an area's past. Readers are asked to consider these volumes as an introduction to the history of the county, for it is expected that other researchers and writers will extend beyond the limits of time, space, and detail imposed on this volume to add to the wealth of knowledge about the county and its people. In understanding the history of our counties, we come to understand better the history of our state, our nation, our world, and ourselves.

In addition to the authors, local history committee members, and county commissioners, who deserve praise for their outstanding efforts and important contributions, special recognition is given to Joseph Francis, chairman of the Morgan County Historical Society, for his role in conceiving the idea of the centennial county history project and for his energetic efforts in working with the Utah State Legislature and State of Utah officials to make the project a reality. Mr. Francis is proof that one person does make a difference.

ALLAN KENT POWELL
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GENERAL EDITORS

Introduction

This is the story of people living in an arid land. They struggled with pervasive heat, sparse forage, and scarce water because they were living in the Mohave Desert, right where it abuts the edge of the Colorado Plateau in Utah's southwest corner. Limited water determined much of what they could do, yet their ingenuity responded to the setting, producing several civilizations over many centuries in this harsh land of exquisite beauty. This book focuses on the Anglo-Europeans who settled the area in the latter part of the nineteenth century. They present a contrast to their forerunners, the Anasazi, and the Paiutes, because these pioneers more successfully molded the land to fit their will—plowing, fencing, and irrigating.

In the 1850s the Mormons (members of the Church of Jesus Christ of Latter-day Saints) came to settle; soon after European and American explorers had made the region more well known. Initially the Paiutes welcomed the "Saints." Greatly relieved, even optimistic about their relationship with the Indians, the Mormons set up villages and a subsistence agriculture that was distinguished by its cooperative labor. Their hope for friendship with the Indians dwindled

over time, but they learned much from the natives (herbal medications, trails, knowledge of other tribes) and maintained a fairly peaceful relationship with the Paiutes although less so with the Navajos.

The Latter-day Saints worked together to bring water onto the land. Though they found water to be limited, they succeeded in building canals and dams. The longer they stayed, the more ambitious the water projects became—notably the Cottonwood Canal, the Hurricane Canal, the Washington Dam, the La Verkin Canal, and the Enterprise Reservoir—substantial achievements requiring many years to construct. They created irrigated oases to sustain small arable plots, sometimes called “pocket farms.” As an alternative, some farmers turned to grazing sheep and cattle on the open range where the animals had to move seasonally over vast stretches to find sufficient feed.

Mormon villages were tightly organized, often, though not always, laid out in a planned four-square pattern. Within the village, family life and society were concentrated; farm lands were outside the village boundaries. Some twenty-five communities nestled close to the Virgin River and its tributaries—Santa Clara Creek, Ash Creek, and Quail Creek in Washington County, and a few more in adjacent valleys.

For 100 years these settlers lived in relative isolation. Even though they were part of the larger endeavor of settling the whole eastern side of the Great Basin, these colonists occupied a remote corner just below its rim. It was soon nicknamed “Dixie,” because it was hot, southern, and produced cotton. The name “Utah’s Dixie” was an inexact term, usually referring to the lands involved in the Mormon church’s Cotton Mission. Neighboring towns such as Bunkerville and Mesquite, though outside of Utah, were certainly producers of cotton and closely related to St. George, the region’s capital. Melvin T. Smith offers a most expansive view: “Dixie is bounded on the east by the faulted cliffs of the Colorado Plateau; on the south by the Grand Canyon...on the west by the dry deserts of the Great Basin . . . and on the north by the south rim of the Great Basin, old Lake Bonneville, and the lava-covered Black Ridge.”

There were frequent visitors to the remote Dixie landscape—

freighters, federal officials, religious leaders—given its position on the Salt Lake-Los Angeles corridor.

A sweep of silver miners came but left after a decade. The telegraph reached the community early, so residents knew what was happening in the larger world of America. They knew of the Civil War, for example, but were relatively untouched by it.

The railroad never arrived, nor did the merchants, bankers, and investors who would have come with it. Roads in the region were extremely hard to build over volcanic flows and sandstone washes; not until 1930 was an oiled road finished, linking Washington County to the national highway system.

The relative isolation from 1854 to 1930 was both a boon and a bane. Area residents largely were left alone to pursue their peculiar culture, but they also were left without certain comforts. The heat was oppressive. The Virgin River below the Hurricane Fault was full of sand and sulphur. The ubiquitous wind blew sand into everything. But the settlers were determined to conquer one of Utah’s harshest environments.

If there was to be any culture, it had to be home grown; and it did flourish, partly as encouragement against harshness. Bands, choirs, dances, literary societies, and especially theater, with regular monthly performances, sprang up. There was a modest library, and several attempts were made to sustain newspapers. Schools also were established. Although they were basic at first and held sessions only a few months each year, still, the settlers valued learning enough to require that each ecclesiastical ward maintain a regular school.

Religion was pervasive and motivating. Many people came to Dixie in response to religious assignment, but only a portion of them stayed. Those families that persisted, some for five generations, were the sinew that made Washington County. Even those who stayed moved within the region a great deal. Mobility became the norm as people sought more land and water to sustain the next generation.

The story of Utah’s Dixie is a mixture of local initiatives and outside influences. The latter came increasingly after the turn of the century. The economic depression of the 1930s was especially severe for Washington County, but the New Deal programs combatting it brought federal investment in the county as never before. The devel-

opment of Zion National Park is an example of how outside forces impinged upon the region. Founded in 1909 as Mukuntuweap National Monument, it became Zion National Park in 1919. By the 1930s and 1940s, a tourist industry developed around it as motorists came to the area to view the scenic wonders of the red cliffs and towering mountains that had so long isolated the locals from the rest of Utah and the West.

When air conditioning arrived after World War II, tourism overcame its biggest obstacle, the oppressive heat. The sunshine that had driven many settlers away suddenly became an advantage instead of a curse. Outside forces flooded into the county.

Pioneer lifestyles of austerity and frugality gradually gave way to consumerism. The automobile brought America to Dixie to enjoy its desert wonders. With it also came filmmakers to enliven the saga of the cowboy. The area became the workshop of movie stars, who in turn helped make the region almost as well-known as Palm Springs.

By the 1960s, a new set of pioneers were at work in Dixie. They were largely local entrepreneurs who dreamed of the area as a destination. They built an airport and established an airline. They promoted road building. Their enterprising skills produced golf courses, planned housing communities (Bloomington and Green Valley—largely done by newcomers), a new Dixie College campus, industrial parks, and water-reclamation projects. All this was a prelude to the arrival of the interstate freeway in 1973; I-15 did for the region what the railroad had done for many other communities in the nineteenth century. It opened the world for Dixie. Washington County became virtually a crossroads, connecting Utah's Wasatch Front with southern Nevada and California much more closely than in the past.

Today's county has completed that transformation from isolation to destination. Outside capital flows freely into the economy as do newcomers. The freeway has surpassed anything the railroad could have done in making Dixie a destination. The population today has a majority of newcomers. They have been welcomed by the fifth generation of pioneer descendants. Washington County hosts virtually every national franchise available; shopping malls have moved merchandising out of the downtown section of St. George and drawn shoppers from wide distances. The community now supports many

religions. Dixie has been quite thoroughly Americanized, but its pioneer heritage is still in evidence.

Though the county shares the story of conquering the frontier with the larger movement of Americans onto western lands, the local version has a few unique twists. Some of them are tragic, including the Mountain Meadows Massacre in 1857 and the nuclear radioactive fallout that killed many residents a hundred years later. At least one is curious—the numerous polygamous marriages of the nineteenth century and the isolated replay of polygamy in the twentieth. The overarching local story of cooperation and harmony contrasts with the general individualism of the West, but conflict in the area was not unknown. How it was resolved often took unusual forms. The people of this generation are committed to their cultural values and are striving to perpetuate them into the future.

The county is still an arid place. The land, weather, water, and sunshine are always dominant features. They draw visitors and newcomers and make every day stimulating, but the desert is a jealous mistress as the Anasazis found out centuries ago. So the future most likely will still be a contest between human ingenuity and nature's limitations.

SINKING ROOTS

Mormons were institution builders. Once their immediate survival was assured, they turned to anchoring their institutions. This was true in the Great Basin, and the Dixie pioneers implemented it without question when they arrived at the base of the Colorado Plateau. Even though their assignment took them below the Great Basin into the sandy desert, they assumed they would conquer it through irrigation, family farms, villages, churches, schools, shops, newspapers, libraries, banks, theaters, and courts, just as their co-religionists were doing in scores of other settlements at higher elevations. This institutional solution was working throughout the Mormon settled portion of the Great Basin and they intended to make it work in Dixie within the first decade.

The initial Washington County settlers accomplished the basics of laying out townsites on the grid pattern Joseph Smith had adopted for his ideal City of Zion. Settlers drew lots for a town plot and acreage in nearby fields, diverted water onto the land, and arranged temporary shelters for their families. Then they automatically turned to the next step in their minds: building civic institutions.



St. George Hall and Main Street after a rare snow storm. The Hall was used as a store after the completion of the Tabernacle—seen at the end of the street. (Lynne Clark Collection, donor—Andy Winsor)

They employed a compressed approach to civilization—imposing several development stages at once. Within a year of settling St. George, a post office had been opened (it was applied for prior to their arrival), the territorial legislature had issued a charter to the city (on 18 January 1862), schools had been established, four religious congregations (wards) had been organized, dams had been built, cooperatively built canals were in place, a community bowery was erected, a city council had been elected and several committees had been organized to build irrigation canals and to find timber and build lumber mills. This same, if not quite so complex, sequence had been followed in the dozen Washington County settlements that preceded St. George.

St. George Hall

Only a few days after their arrival in St. George, Erastus Snow proposed to the citizens that they build a public hall to house social and educational activities. The only way to finance it was by public subscription. He put the proposal to a vote, and the people pledged to donate to the project. Historical records indicate that “a subscription

list was made with contributions pledged in various amounts ranging from five to fifty dollars each, and totalling \$2,074 from 120 people, not one of whom yet had a roof over his head.”²²

The building was completed in three years and became the home of numerous theatrical, musical, agricultural, civic, and educational activities. It was called the St. George Hall and was located on the west side of Main Street, just a few doors north of the Church’s tithing office. Dances were special favorites as were public holidays with oratory, singing, and general celebrating.

The St. George Tabernacle

Brigham Young did not wait for culture to evolve gradually after his fellow Mormons had built homes and had seen their farms producing. In the case of St. George, he called upon the residents to undertake a most ambitious civic effort first. After he visited the new settlement, some nine months following its founding, he wrote to the colony’s leader, Apostle Erastus Snow, directing that they build “as speedily as possible a good, substantial, commodious well furnished meeting house, one large enough to comfortably seat at least 2,000 persons, and that will not only be useful, but also an ornament to your city, and a credit to your energy and enterprise.”²³

This request was no idle suggestion. Young had been at the site and received the plea of Snow. They both knew that the effort to establish a southern regional capital at St. George was turning out to be more of a problem than anticipated. The settlers were discouraged—northern irrigation techniques were not working in this region. Already several had abandoned their call. The need for reinforcements was urgent, but newcomers would face the same harsh realities—scorching heat, brackish water, alkaline soil, blowing sand, killing diseases, and bursting irrigation dams. It was not just a matter of character; resources had to be increased or the undertaking might fail.

Brigham Young decided on the building of a tabernacle in order to rally the colony. It was to be a heroic structure that would state categorically: “we are here to stay.” This was to be the centerpiece of a capital city. Not insignificantly, its construction would provide employment for craftsmen, a subsidy to support the community for

a few years while they attempted to conquer the desert. In his letter, Young went on to say: “I hereby place at your disposal, expressly to aid in the building of afore-said meeting house, the labor, molasses, vegetable and grain tithing of Cedar City and all other places south of that city. I hope you will begin the building at the earliest practicable date: and be able with the aid thereby given, to speedily prosecute the work to completion.”²⁴ Brigham did not often subsidize a colony, but he chose to in this case most likely because of its strategic importance and certainly because of the exceptional environment it faced.

The first task before the builders was to erect a tithing office across the street north of the tabernacle square. Erastus Snow began delivering a systematic message throughout the region to all Latter-day Saints: pay your tithes to make possible the building of the tabernacle. Obviously there was no other source of capital for civic projects than the productivity of the people. Voluntary contributions in the form of tithes were the lifeblood of all community efforts. Such donations were an indicator of one’s adherence to the institution. And the tithes were paid, often after considerable exhortation and almost entirely in kind—eggs, chickens, wheat, grapes, sorghum, cattle, fruit. Much was perishable and had to be stored efficiently in the tithing office. From its stores, workmen could be paid for their labor on the limestone foundation that was soon in progress. Tithing scrip was also issued for supplies and became the de facto legal tender of local commerce.

Once the limestone foundation was completed, workmen began quarrying the distinctive red sandstone for the tabernacle’s walls in a quarry where today the Red Hills Golf Course nestles into the cliffs. Edward L. Parry was the chief mason, assisted by Charles L. Walker, Joseph Worthen, David Moss, George Brooks, James G. Bleak, William G. Miles, and John Pymm, among others. Their carefully cut blocks fit on the deep, six-foot-wide limestone foundation. Today the cutters’ work can be inspected to see the distinctive marks of each craftsman. Oldtimers claim they can attribute specific stones to each cutter by their distinctive tool marks. The Dixie weather and clean air have preserved the stones so that even an amateur can distinguish the markings.



Tithing Scrip issued by the St. George Stake Tithing Store House. (Lynne Clark Collection)

Workmen were occupied from 1863 to 1875 with the demanding task. Huge timbers from Mount Trumbull were hand hewn to span the large auditorium. The lumber, milled in Pine Valley, provided a large part of the need; however, it often had to wait while mill workers produced timber for the mines in Pioche, Nevada, that had priority because the mine owners paid in cash currency. Often Erastus Snow had to reenergize the tithers to supply the resources for the building.

There were down times and there were also competing projects such as the cotton factory and the county courthouse. Other public subscriptions also competed for donors—the telegraph, public roads, Indian gifts, and departing missionaries, but the work proceeded gradually and safely. Orson Pratt's prayer at the tabernacle's cornerstone laying prophesied that the work would go forward without serious accident—and it did.

Inspiring incidents were told about the construction. One favorite involved the windows. The wonderful New England design style included large windows with many panes that would flood the chapel with bright light. Plans called for 2,244 small panes in the forty pairs of horizontal sliding windows.⁵ The glass for the windows was shipped by boat from New York to California. David H. Cannon

had been assigned the task of raising \$800 for the glass through yet another public subscription. This money for the final payment was to be sent with the freighters on their trip to California when they picked up the windows to bring them to St. George. Cannon optimistically set a day for the freighters' departure; however, by that time he had raised only \$200. Nonetheless, he determined to depart and "depend on the Lord" to aid the endeavor.

At the same time, a Danish convert, Peter Neilson in Washington, was anticipating his long dream of adding onto his two-room adobe home; but somehow he was uncomfortable about the expenditure of his savings. Legend has it that without knowing specifically of the needed amount, he determined to give his long-amassed funds to civic purposes. He arrived in St. George with \$600 on the morning the freighters were to depart. Whether the story has been embellished with time does not matter. Its elements are sound; Nielson's donation enabled the glass to be purchased and complete the enclosure. Many of the panes are still in place, easily distinguished.

Orpha Hunt tells of a freighting experience her father, Revilo Fuller, had while traveling to California to pick up the windowpanes. He told the story to her later, and she wrote it down:

We had three long desert drives with no water on the way and no feed for the mules except the scanty vegetation which grew by the way.

Your grandfather Elijah K. Fullér and Uncle Wid and myself with many others made many a trip to Cal. However on the trip when we brought this glass, Father and Wid's team were driven by Jim and Tom Pearce. We hired an Indian boy who we called "Josh" to go along as night herd for the teams, taking a saddle horse for him to ride.

He would take the mules out to where the grazing was as good as the country afforded and at the first peep of day he would bring them back to camp. That was one trip that everything went well as far as molestation by Indians was concerned.

On our arrival at the Wilmington Docks, the ship was unloading her cargo. The boxes containing glass were dumped on the dock like so many stones. I refused to accept one single box until

they were opened and all broken glass thrown out. This made quite a delay but we had no broken glass to start out with.

We loaded the boxes with the edge of the glass down so as to avoid breakage and it came through very well.

We used to drive with one line for six or eight mules, training one of the lead mules as a "jerk mule" and it would obey the jerk to turn the team "Gee" or "Haw" as the driver desired. I tried to learn Josh how to drive, but he was scared to even touch that jerk line.

You would hardly think that those little window panes cost seventy five cents a-piece, would you; at the present time you can buy all you want for ten.

And this is how we got the window glass as told me by my father Revilo Fuller.⁶

Miles Romney was the general supervisor of the tabernacle's construction. His personal delight was building the two spiral staircases that led to the balcony. Their grace depended on delicate measurements. When Brigham Young visited the project, he took exception to Romney's construction of the balcony. President Young felt that Romney had the balcony too high; it was difficult for worshipers to see the pulpit. He wanted the proportions such that the balcony bisected the windows about equally, some six feet lower than Romney had installed it. It became apparent that two strong wills were confronting each other. Romney did not intend to change his staircases, since that would ruin the proportions, but Young insisted that the balconies be lowered. Visitors today can see the result. The balcony is where Brigham wanted it, and the staircases also are in place in their original design. People must ascend to the top of the Romney staircases before taking six steps down to reach the Young balcony.

The tabernacle stands on the town square today as graceful as ever. Two major restoration projects, one on the exterior and the other on the interior, have been completed by competent restoration architects and builders at great cost (many times the original expenditure). The building reigns in the city as a masterpiece of its kind. Residents and visitors alike are fond of it, well beyond their feelings for other LDS structures. The spiritual sanctity created by the sacrifice in building it explains part of that feeling. Many hallowed events that also have occurred there add to the love felt by residents. The



The St. George Tabernacle shortly after its completion in 1876. (Lynne Clark Collection)

quality of architecture and the craftsmanship help too. But its symbolic meaning is central. It has to do with that vision the Dixie pioneers had about a kingdom of God.

Probably the most appreciative words written about the tabernacle are these by Dixie historian Andrew Karl Larson:

The Tabernacle is beautiful; there is no other word for it. As one looks at it in the soft mellow light of early morning or late afternoon, standing there so blended with the red hills that furnished its own stones, he instinctively reacts with awe and reverence. The finely dressed stones have lost their harshness through the softening effect of the thousands of tiny short grooves cut by the crandall in the competent hands of pioneer artisans. There is no particular part that clamors for attention; what one sees is a unified structure producing a simple and satisfying harmony of purpose. It leaves no feeling of heaviness, yet neither does it convey a mood of fragility. Its numerous windows, symmetrical in their

grace, draw the eyes upward to the pinnacle of the tower and back again with one easy motion. Inside and out, it carries the conviction of dignity and strength and the feeling of both solemnity and joy. Its appearance, far more than words can tell, reveals the love and infinite pains lavished upon it by those who slowly brought an architect's dream to reality. Born of suffering and travail, it imparts no sense of toil and hardship but the feeling of effortless creation that only great art can achieve. It is these things which lead the discriminating beholder to assert that the Tabernacle is the finest example of the chapel builder's art, not just in Utah, but in the whole Mormon experience.⁷

The St. George Tabernacle took on added meaning when church president Lorenzo Snow visited the city on 30 May 1899 and delivered a famous sermon on tithing.⁸ It was a time when the church was facing extreme financial difficulty, partly an aftermath of the federal government's assault on the fiscal structure of the church through the Edmunds-Tucker Act of 1887. President Snow came to St. George on a spiritual impulse and reported that he did not know why until midway in his talk when he stopped and then turned to the subject of tithing.

The St. George Temple

Midway into the tabernacle building project, Brigham Young announced an even more important undertaking—a temple. The idea had been first raised by the Mormon church president in counsel with Apostles Erastus Snow and Brigham Young, Jr., on 31 January 1871. Following consultation with the other general authorities at the April general conference, Brigham sent a letter to Erastus Snow in St. George announcing the decision. He described the temple as two stories high with a basement housing a baptismal font. The structure was to be 196 feet long, 142 feet wide and 80 feet high, built of stone and plastered inside and out. Also crucial was the financing plan: all the tithing of the Latter-day Saints in Beaver and those wards south was to go to the completion of the tabernacle and the building of the temple.

Why this additional project, this continual support for the Dixie

colony, this ongoing request for donated labor and contributions? Historian Heber Jones reflectively explains:

Brigham Young was getting old. He wanted to see a temple established in the west in his lifetime. His ambitions had been frustrated in Salt Lake City by meddling federal authorities. No significant work had been done on the Salt Lake Temple in seven years. President Young had been in and out of court or jail on several occasions and other charges were pending. He had visited St. George and knew that the people were restless and needed something to unify and sustain them when the Tabernacle was completed. It was a difficult mission in Dixie and some wanted to leave. He also knew that some of his most trusted, experienced and loyal followers were here. The place was relatively isolated and would be free from government and gentile interference. Skills, labor and materials were available. The people needed subsistence to see them through the pioneer period. The Cotton Factory was in trouble, and the natural scourges of flood, famine, and Indian fighting were competing with the sun as excuses the weak could use to question their call and go elsewhere.⁹

Brigham Young wanted his empire to be self-sufficient, and St. George was a key location for travel, supply, and defense. The colony had to be maintained.

The temple construction reinforced St. George's status as an emerging regional hub. People from southern Utah, Nevada, Arizona, and even Mexico traveled to St. George to enjoy its ordinances. The temple was the first in Utah and clearly the one that had Brigham Young's imprint. He selected the site, south of the city, on a low hill. (The city would later expand and surround the temple.) The architectural design by Truman O. Angell was directly influenced by Young but, even more important, the form of the liturgy in the building would be developed under his guidance. The economic impact was significant too; for one thing, 100 men came from Sanpete County to serve as construction workers. They would later return home and build the Manti LDS Temple.

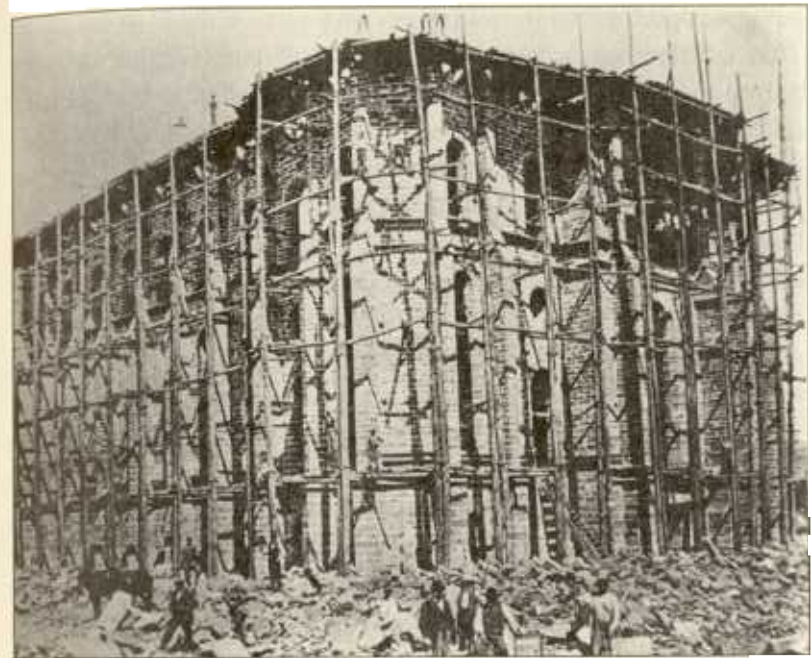
On 5 November 1871 Dixie church members voted to sustain the decision to build the temple. Four days later the groundbreaking ceremony was held. The excavation soon ran into serious water prob-

lems. About one-fourth of the foundation rested on solid limestone (on the north side), but the remainder of the building site was marshy. This problem was solved by draining the ground and transporting volcanic lava rocks from the west black mesa near where the airport is today. A road had to be built on the hill and wagons were needed to bring the stones to the temple site. It was tedious work to quarry the volcanic rock, transport it to the temple site, and drive it into the ground. Today the remnants of the road and quarry can be visited by taking a short hike beginning at the city park near the airport.

Thousands of tons of small rocks were first placed in the marshy soil. Workers then pounded the huge quarried volcanic blocks on top of the small ones. Temple builders developed a piledriver by encasing a field artillery cannon in heavy ash timbers bound by iron bands.¹⁰ The heavy weight was rigged to cables that pulled it into the air and then released it to fall and pound the large squarish stones deep into the wet soil. By this tedious and laborious method, a firm foundation was created that has served to keep the building solid and unharmed through a century of elements, including a major earthquake in 1992 of 5.7 magnitude on the Richter Scale. The work was slow—draining the ground and pounding each stone until the piledriver bounced three times, indicating that the footing was solid.

Milo Andrus recorded that he was “at work on the temple, which is progressing very well. There are over one hundred men engaged directly on the ground, over one hundred working in the quarry, and over forty men at Mount Trumbull getting out lumber. In addition some men are on the road for the purpose of getting wood, coal, etc. Every day the President [Brigham Young] and George A. Smith come to see how the work is progressing.”¹¹ With as many as 240 men active in the construction at one time, the ripple effect of this employment on the local economy was substantial, allowing the establishment of a bakery and several other enterprises nearby.

It took more than two years to complete the temple foundation; its completion was the occasion of a major celebration. During that time, volunteers had constructed a road to Mt. Trumbull on the Arizona Strip where they built a mill to produce a million board feet of lumber.



St. George Temple under construction. (Lynne Clark Collection, donor—Will Brooks)

Red sandstone was brought from the tabernacle quarry for the temple walls; that work consumed another two years. The timbers then were placed and the interior work was begun. The baptismal room was installed in the basement. Iron oxen were cast in Salt Lake City to support the baptismal font. C. L. Christensen (age twenty) and several companions traveled to the rail station in Juab County to pick up the font and freight its parts to the temple. He recalled that his load, which was the bottom front of the font, weighed 2,900 pounds, along with two cast oxen, each weighing 600 pounds. Much of the travel back to St. George was done at night when it was cooler for both men and oxen. On the return trip, Christensen and other freighters frequently were forced to search for oxen that had broken away in search of water. But as Christensen relates, “The teamsters had plenty of good Dixie wine to keep them cool and we certainly enjoyed it.”¹²

The entire undertaking was a construction saga. Most of the

labor was performed by volunteers who were “called” to the task. They left families to come to the site, families that had to be supported by neighbors or by payments in kind from the tithing office (if the goods could be transported to them). There was a real camaraderie among the workers, many of whom learned their skills on the job. In general, the project was completed without serious accident, though John Burt fell seventy feet from the scaffolding and was not expected to live. He did, however, and was back at the building site in two weeks to visit his brethren. It was a thrill to all and an achievement—that no lives were lost during the building of either of the sacred structures.

When the baptismal room and lower floor of the temple were completed, they were dedicated by Apostle Wilford Woodruff on 1 January 1877; temple ordinances were begun on 9 January.¹³ The temple was finally completed for the church's general conference on 6 April 1877. The Quorum of Twelve Apostles and First Presidency of the Mormon church gathered in St. George for the conference. It was a momentous occasion. The people of southern Utah felt it was their own achievement; and certainly all the area tithesayers had given measurably to the edifice. Wilford Woodruff was appointed president of the temple.¹⁴

The completion of the temple was not without its quirks. When Brigham Young saw the completed building, he was disappointed with its steeple. He felt that it was too squat, not achieving the dignity worthy of the grand structure; however, in deference to the builders, he did not require a change in its height. He had been willing to insist on a lowering of the balcony in the tabernacle because that was a matter of function, but the temple steeple was mainly decorative. Perhaps his desire to see the dedication as soon as possible overrode his disappointment with the tower; however, his displeasure about the short tower was no secret.

Brigham Young died just six months after the temple dedication. Some two years later, in a severe cloudburst, lightning struck the temple tower. It had to be replaced. The builders got the message. The new tower was twice as tall as the former.

Completion of the temple seemed to signal the end of the pioneer period in Dixie. By that time communities had been firmly

established. The church's public-works projects had been a great boon to the economy. Roads, mills, and craft shops that had been created for the tabernacle and temple could be utilized in other projects without subsidy. Clearly St. George and its sister communities nearby were firmly established as the southern bastion of Mormon country. They would now become the sponsor of other new settlements including those on the Little Colorado River and in Mexico.

It should be mentioned that during the temple construction, county residents continued to improve the tabernacle. A public subscription raised funds to purchase a clock for the tower and an organ near the podium. The clock brought about change in the community, ending disputes about water turns and improving the meeting schedule and the punctuality of worshipers. It even became fashionable for young people to become engaged to be married under the clock, at the strike of a late night hour. The clock became an item of pride for the community, further evidence that civilization was taking root. The installation of the organ similarly proved that culture was significant to area residents. Choirs could perform with the support of an instrument appropriate to the stately building.

Cotton Factory

Besides the tabernacle and the temple, the most recognizable structure in Washington County is the cotton factory in Washington City. It stands today as a clear reminder that cotton was once a major element of the Dixie economy. Certainly raising cotton was a significant motive in the Mormon plan to develop communities in Washington County. John D. Lee kept up a continual lobby in the 1850s to send people to the land south of the Black Ridge to raise cotton. From his Fort Harmony colony at a high elevation he could almost see the land 3,000 feet lower; he ached to be involved in raising semitropical plants that could be grown there—cotton, grapes, figs, sugar cane. He was sure that Brother Brigham could see the natural advantages of a warm climate alternative for the Latter-day Saints.

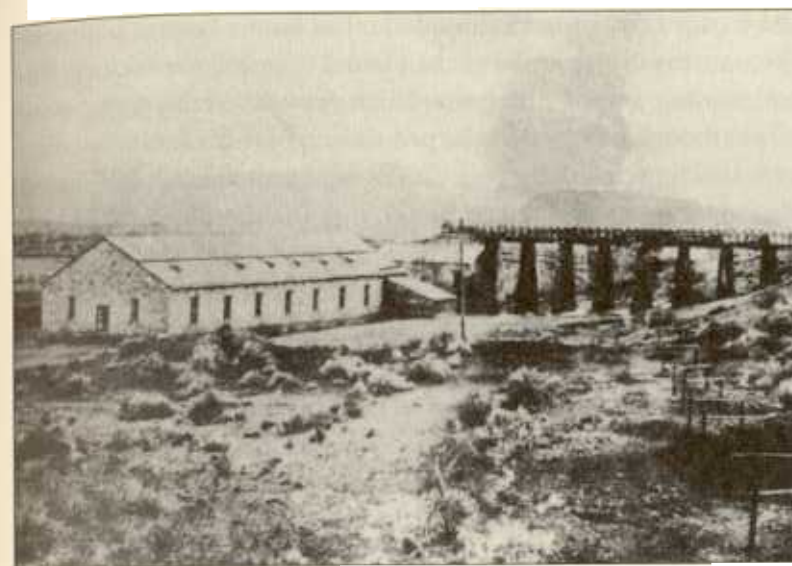
The settlers at Santa Clara experimented successfully with cotton raising as early as 1855. Augustus Hardy obtained a quart bottle of

cotton seed from Nancy Pearce Anderson in Parowan, who had brought the seeds with her from her home in South Carolina. Plants grew to maturity and did well, and farmers carefully kept seeds for the next year. Settlers in Washington brought cotton seed with them and raised cotton in the 1857 planting season. One party of Saints there, under Samuel Adair, were southerners from North Carolina, Virginia, Tennessee, and Texas who knew about cotton raising. Southerners also came south with the Covington company.

Soon cotton also was growing in Toquerville and Grafton. That success impressed Brigham Young who then sent a party of fifteen men to the confluence of the Virgin and the Santa Clara in January 1858 to experiment with raising cotton on a larger scale. Joseph Horne headed the group which located where John D. Lee advised, calling the community Heberville. During the growing season, they faced the trials of heat, thirst, disease, and broken irrigation dams. Setbacks drove their costs up, but by September they were able to deliver 575 pounds of cotton to Salt Lake City at a cost of \$3.40 per pound. They returned the next year with a smaller group and faced serious water and disease problems, but they delivered a load of cotton to Brigham Young at \$1.90 per pound. This was still too costly to compete with cotton raised by southern states where rainfall eliminated the need for irrigation, but it suggested possible success for Mormon attempts at self-sufficiency.

With the outbreak of the Civil War in the eastern part of the United States, the idea of raising cotton in Utah's Dixie became more important. The evidence existed that cotton could be successfully raised in Washington County, and decisions had already been made to expand the mission in the south for political and geographical reasons. Therefore, one of the key instructions given to the newest Dixie missionaries was to raise cotton.

The realities of the cotton-raising enterprise were soon upon the Saints in southern Utah, however. Once they brought water to the land, overcoming the difficulties of irrigation, they faced harsh facts about their harvest. The cotton was so bulky that transporting it to either Salt Lake City or California was very costly. Brigham Young opposed selling the cotton outside the territory. If raw cotton could be woven into cloth in Utah, he felt, the Latter-day Saints would not



The Cotton Factory and mill race, completed in 1866. Two stories were added soon thereafter. (Cuba Lyle Collection)

have to buy textiles from gentiles (non-Mormons). It was good logic, but it did not face market realities. Dixie farmers could hardly give away their crop to northerners. Their grapes (as wine), dried fruit, and grain could be sold in Salt Lake City, but the cotton was a problem. That reality caused Dixie farmers to plant less cotton, not more. Within a short time, it was clear that building a cotton factory in Dixie was the only effective way to keep the farmers growing cotton.

Always pragmatic, Brigham Young realized the situation at hand. He also decided a factory had to be a business, not a religious institution. He knew the straits of the economy, so he decided to invest personally in the factory. He told the southern Mormons that if they would raise the cotton, he would build the factory. He purchased the water rights on Mill Creek and asked Erastus Snow to select a site for the factory that could use the water for power. Young determined to dismantle the underutilized woolen milling machinery in Parley's Canyon near Salt Lake City and transport it to Washington City, where the most productive cotton fields were located.

In September 1865, Young announced the cotton milling project

and engaged Appleton Harmon (who had built a famous odometer to measure mileage crossing the plains) to install the factory. The project was pursued with haste. Elijah Averett was the major stone mason though many others helped, several of them from the tabernacle building crew. John Peck Chidester, Hyrum Walker, and August Mackelprang cut timber and hauled it to the site. The first floor of the structure was completed within the year and was dedicated 24 July 1866. The dispatch with which the cotton factory was completed was amazing, since at the same time the Saints were exerting effort to build the tabernacle, construct dams, clear land, and build homes. They were even sending teams to help bring new immigrants to Utah. Their manpower was stretched to the limit.

Machinery was freighted south and installed the last few days of 1866 under the direction of a Scottish convert, James Davidson, who had been sent to direct the project. Volunteers contributed their muscle for building a millrace to bring the stream water to the waterwheel. By January 1868, the factory was in operation. In 1870 the building was enlarged by adding another story, a testimony to optimism.

During construction Erastus Snow solicited funds from the local people to build the mill-race, and he then began a major financial project, inviting people to invest in the mill and make it a cooperative. The idea was for Brigham Young to get the mill constructed and working, then for the local people to buy him out and take it over. This was yet another plea for funding from people whose means were already severely stretched. Though some people invested in the project, it was difficult for Erastus Snow to find investors.

Courthouse

No sooner was the cotton factory completed than the community began building a formidable courthouse. The county probate judge at the time was James D. McCulloch, who served from 1859 to 1870. He was responsible for emphasizing the need for this significant public building. Instead of a public subscription to raise funds, the Washington County Court proposed a tax increase of two and one-half mills. In an election on 5 August 1867, the mill levy was approved by a large majority. Despite their poverty, there seemed to

be no end to the civic will of the people. Yes, the building would provide some jobs and yes, it would sink yet another root guaranteeing the permanence of the community; nonetheless, it was another financial sacrifice for people who were still trying to survive. It tested their mettle once more because it required a decision for the benefit of the whole instead of the individual. Once the tax was instituted, the judge authorized an expenditure of \$500 to begin construction.

The workmen who were erecting the tabernacle also built the courthouse. Samuel Judd worked the lime, William Burt led the plastering, Miles Romney shaped the wood. The building was 36 by 40 feet and three stories high. It included a jail in the basement, offices on the main floor, and an assembly room on the second floor to be used as a courtroom and for many other community activities, including socials and even theater. The building featured a handsome cupola. Folklore has it that the dome was designed to be used for hanging criminals, though such a use never occurred. The building was completed in 1870, a brief three-year construction period. It is still very much in use as a community center. The St. George Chamber of Commerce occupies the main floor while the newly restored chamber on the upper floor is home to many community meetings and socials. Tourists find their way to the building in large numbers; it is often the first landing spot for people who are investigating the area for recreation or as a place to live. The Washington County Historical Society has its offices in the basement and has spearheaded the building's restoration.

These major projects—the St. George hall, the LDS tabernacle, the LDS temple, the cotton factory and the county courthouse—were the result of an amazing decade and a half of building activity. The St. George Latter-day Saints arrived just before January 1862 and the temple was dedicated on 6 April 1877. The resources for these heroic structures were imported from throughout the region; the buildings housed institutions that were clearly respected by the people in the area, and, in the case of the temple, of the area well beyond Dixie.

Town Buildings

At the same time these major edifices were being built, almost every town in the county was in the process of building a community

WATER

Water is the key resource in a desert. Land seems boundless, but water is scarce. Not only is rainfall limited in Dixie (eight inches average annually) but its flow across the landscape is also sporadic. Sometimes small rivers and streams are placid and easily used other times they dry up. They occasionally become roaring floods and turn destructive when cloudbursts come. The speed of the accumulation, little hindered by vegetation, creates a force that uproots trees and rocks, hurling them as if they were toothpicks. In minutes the force cuts into soft riverbanks and washes away the soil the river has deposited for decades. Thus farmlands are decimated and sent downstream as mud and debris, eventually reaching the Colorado River. Over time, grazing by cattle and sheep denuded some of the range in Washington County, causing water to run off hillsides even more quickly.

Canals and Dams

Diverting water to thirsty crops and maintaining diversion dams and irrigation ditches was a constant cooperative challenge for the

settlers in the county during the first four decades of settlement. The Virgin and Santa Clara rivers were not easily tamed. Scores of men, working cooperatively, spent each winter building or repairing yet another dam or ditch to divert the waters of the Virgin. The construction and maintenance of the Old Virgin Ditch, the Jarvis Ditch, the Price Canal, and finally the Washington Fields Canal made the "desert blossom as the rose"—at least in spots.

Once those few plots were blossoming, a second generation was on the scene. They were anxious for land. Fathers were not ready to give their land to their sons, sometimes because they were still young themselves, sometimes because they had younger plural families to support. The need for land and water increased with subsequent generations.

Settlers faced numerous engineering and technical problems in their efforts to coax the water onto the land. Washington City farmers came together to dig several tunnels (named Schlappi, Beard, Pickett, and Sproul) through the Shinob-kiab, only to have them fill with silt, reducing the flow of water through the tunnels and causing flooding up the canal from the tunnels.¹ The Old Virgin Ditch had to be constantly guarded and maintained against breaks, and the farmers using it spent many days annually removing silt from the canal; however, by 1880 the ditch had become too expensive to maintain and was abandoned.

Brigham Jarvis of St. George invented a system of sand gates, providing a means of clearing the Jarvis Ditch of silt. Through the Jarvis method for removing silt-laden water, a series of sluices made it possible for a canal to be self-flushing, removing silt with less manpower and expense. In 1870 a group of promoters, including William Carter, William Fawcett, George Jarvis, William P. McIntire, Mathew Mansfield, Henry Gubler, Joseph Birch, Addison Everett, and John Larson, began building a new dam and ditch.²

Floods were not respectful of the Jarvis Ditch or of the next dam project higher up the river. After a huge effort to build a permanent dam from 1886 to 1889, developers including Marcus Funk, John R. Chidester, Anthony Ivins, and Andrew H. Larson, expected a yield. No sooner was that major achievement completed than the largest

known flood to date came and literally defied all their efforts, twisting their dam's well-engineered pilings and gates with its massive force.

This "dam versus flood" cycle was a life-and-death matter. Were the floods to win over the Mormons' attempts to conquer the Virgin, the area's best agricultural land (the Washington Fields) would have to be abandoned. Time after time, people found the inner resources to try again to beat the floods on the Virgin. Financial costs had to be overcome—volunteer labor was requisitioned again and again by canal companies. Many people concluded the endeavor was self-defeating and chose to move, some going to Garfield or Emery counties, others to Arizona, where new Mormon colonizing efforts were underway. The population of the city of Washington dropped from 600 to 312 in 1892.³

Those citizens who stayed organized yet another expensive effort, this time to build a permanent rock dam farther upriver that would double the acreage that could be watered.

This great effort required outside help. A. W. Ivins went to Salt Lake City and convinced Mormon church leaders to participate even though they had their own major financial crisis with the federal government.

Many Latter-day Saints gave their tithing labor and volunteered their energy to the project. This was a "do or die" undertaking. It came at a time when previous economic supports had dried up—the cotton industry, the mining boom, the church building projects. Agriculture had become the only base for the economy. Again it meant strenuous labor in frigid water with no guarantee that their venture would not meet the fate of at least ten previous attempts. Leaders from earlier efforts, George F. Whitehead, Alonzo Clark, William Mathis, Henry Schlappi, Jack Beard, Horatio Pickett, and Andrew Sproul, Sr., were central in the effort. This dam, completed in 1891, allowed the canals to be finished by 1893 in time to meet the deadline for land-filing claims. It proved to be a real victory. It held and served as the basic structure to open up the Washington Fields to permanent productivity. By 1896 the "Report of the State Board of Equalization for Utah" noted that there were 11,122 acres in the county used for agriculture and assessed them at \$14.00 per acre, second in value only to Salt Lake County at \$14.80.⁴

Cottonwood Project

St. George City has its own water story to tell. Two springs coming from the Red Hills inside the city limits had a lot to do with locating the city where it is today, snuggled close by those springs. Together they produce just over two cubic feet of water per second, and they have been consistent for 135 years. A few smaller springs also feed into the flow. Some 400 acres and perhaps that many homes were sustained by channeling water through an elaborate ditching system requiring constant care.

Old-timers love to tell of city regulations that sent them out to the ditch each morning about 5 A.M. (in the summer) and 7 A.M. (in the winter) to fill the family barrel with water. They would then wrap the barrels with wet blankets to keep the water cool. This had to be done early because by 6 A.M. (8 A.M. in the winter) cows were allowed out in the street where they were gathered from individual corrals and herded to a common grazing spot. The first thing the cows wanted to do was drink from the ditches, fouling the water for the rest of the day. For the next twenty-three hours the water was sent down various ditches to provide watering turns for gardens and farms.

Before long, St. George residents realized that the city would continue to grow and that they would need a more ample water supply than the Red Hills springs provided. By the mid-1860s, they had explored widely and knew of a wonderful large spring on the southern face of Pine Valley Mountain, some eighteen miles away. Lyman Hafen tells the story of bringing culinary water to St. George in several phases over the next decades.⁵ As he suggests, the project had its most effective organizer when Anthony W. Ivins was elected mayor in 1890. His efforts helped divert the Cottonwood Spring water from its natural flow into the path of the Washington cotton mill, then by canal to St. George.

The next strategy, just six years later, was more ambitious. Following a plan offered by Brigham Jarvis, the St. George City Council authorized building a canal to bring water directly from the Cottonwood Springs to St. George, bypassing the Cotton Mission mill creek. Jarvis's plan was controversial; many people felt he was

trying to make water run uphill. He had established his route with homemade surveying equipment, a simple spirit level and tripod. The city council listened to Jarvis's proposal and had Isaac Macfarlane recheck his figures. They then committed \$2,000 and authorized Jarvis to issue labor certificates. It was an enormous undertaking. Hafen recorded:

Yet with nothing but teams, wagons and crude horse-drawn excavation equipment, a crew of townsmen went to work with high aspirations. They built a ditch that wound more than 15 miles down the rocky knolls, and sprawled down the lava flats—mile after mile—to the city. Meager wages, paid in the form of water "scrip" (to be redeemed later), were promised to the men who dripped sweat and shed blood along every inch of the canal. But their pay came mostly in the satisfaction of building a lifeline from the mountain to the town. And instead of two years, the project took more than seven.⁸

Arrival of the Cottonwood Springs water in 1898 assured St. George of a water supply for the next several decades. Official completion took until 1903 when the headgates and storage system were finished. The water flowed from the mountain in an open canal, however, which meant that nearly half of the water sank into the ground or evaporated on the way. The other problem was that the range cattle and sheep quickly discovered the canal and fouled the water while they drank.

The availability of plentiful water encouraged citizens to pass a bond election in 1907 which financed installation of pipes from the headgates to individual homes, ending the old practice of dipping from road ditches. Still the water coming out of those taps was often filled with red sand if there had been rainstorms; certainly other impurities came out too because the canal was not enclosed. In 1920 another bond election was held, this time to raise \$72,000 to enclose the city's water in a distribution system of wooden pipes. Later cement pipes replaced the wood. (More recently, iron and plastic pipes have replaced the cement ones.)

Completion of this project was not accomplished until well into the 1930s with the aid of Federal Reconstruction Finance

Corporation funds amounting to \$150,000. These dollars were devoted to enclosing the canal from the Cottonwood Spring all the way to the city headgates. Finally in 1937, people could celebrate; they turned on their taps and received clean, cool water, a feat that would have brought tears to the eyes of their grandparents. (This New Deal largesse may have been one reason why county residents moved in large numbers to the Democratic column in the 1930s.)

Enterprise Reservoir

The saga of water development in Washington County—from the first diversion of streams to the later engineering undertakings—was not confined to the large communities of Dixie. For example, some people who lived in Hebron realized that there was not enough watered land to guarantee the future of their community in the northwest corner of the county. Since ranching rather than farming was the main concern of Hebron citizens, it seemed initially that Hebron could survive without irrigating much land. That was all right for a few cattle operators, but the small, self-sustaining families needed farmland and substantial gardens, so they diverted Shoal Creek water onto the land around Hebron. Many people left Hebron to search for more land, some going to Wayne County; others tried various locations in Washington County and elsewhere.

Orson Huntsman was one of those who settled in Hebron but later moved because he could not get enough water to support his farm; however, other places had similar problems, so he eventually returned. His active mind kept him searching for a solution to the water shortage; he began talking with his neighbors about a major project—building a large reservoir at the head of Shoal Creek and bringing water in a steady, all-year delivery canal to the desert lands below Hebron. This was revolutionary in a way; it meant skirting Hebron and creating a new community.

For Huntsman the idea was not just talk. He gradually took on the responsibility of molding public opinion. In this he was initiating a typical American frontier effort, something quite different from the church-planned land distribution of the first villages that earlier had shaped Dixie. His was a venture of individual initiative without the convenience of prestige or authority on his side. Huntsman soon



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Jacket design by Richard Firmage