

## Rivers of Life

Over 2000 years ago, our lands were inhabited by the Hohokam people. The word Hohokam comes from the Akimel O'odham word for "those who have gone" or "all used up." With a population estimated to be as many as 80,000 individuals at its height, the culture flourished for more than 1000 years in the unforgiving Sonoran desert. The Hohokam dug a fairly sophisticated network of canals in the Salt River Valley. These canals were dug when civilization had started to grow beyond the river. These twelve foot-deep canals were dug mainly with sticks and other ancient stone material, and are recognized as a wonder of the Ancient West. Because of their extensive abilities when it came to excavation, the Hohokam were considered to be engineering geniuses. Their ability to push water effectively for several 100 miles over a flat desert landscape, while evading hills and valleys complimented their legacy. The Hohokam canal stretched nearly 500 miles and would serve up to 50,000 people at any given time. There is no totally accepted evidence on why they disappeared, only speculation. The most viable reason was outgrowing their capacity to sustain life in the desert. Especially during periods of environmental stress, all but vanished by 1450. Although the architects vanished, the canals were still present. These canals were necessary for Mesa's development and show incredible value in Mesa's history. The Hohokam legacy in Mesa extends beyond the water; the canals served as the lifeblood for massive civic centers, most notably **Mesa Grande**. This platform mound, constructed of caliche and river cobble, stood as a monumental piece of architecture that mirrored the complexity of the irrigation system. These mounds were not just residential; they were elevated stages for the community's elite and religious leaders, providing a literal high point in an otherwise flat desert landscape. The transition from scattered "pit-houses" to these massive,

walled compounds signifies a shift toward a highly organized, urban society (Kohler and Reese 10101).

The Hohokam effort to build irrigation canals became the foundation of economic and urban development of Mesa. These canals were found by Jack Swilling, a Mexican War and Confederate States Army Veteran who had headed west as an ox-train teamster. A small gold rush in central Arizona brought many miners to the Salt River, leading to the discovery of the ancient architecture. Swilling analyzed their potential and restored them as a viable water delivery source. With sixteen other miners, he received a loan to create ditches, minimizing watershed, to successfully raise wheat, barley and corn. Canals and ditches following modern day 32nd Street and Van Buren Street were used to redirect delivery of water to sell in Wickenburg. The usefulness of these canals were again discovered and appreciated. The Swilling Irrigating Canal Company worked diligently to revitalize the irrigation system and tempt people to settle in the new land. Englishman "Lord" Darrell Duppa, recognized the symbolism of a new agricultural civilization rising from old Hohokam canals. He said: "A city will rise phoenix-like, new and beautiful, from these ashes of the past," (Trimble 182) and renamed the new community Phoenix. The canals had gone from practically no use for 400 years to the founding of a new city. This allowed Mesa, and central Arizona as a whole, to grow not only in space, but in importance.

Following the re-introduction of these canals, a man named Carl Hayden, along with others, had recognized that with high variable flows, the Salt River, and many rivers alike, were subject to very low flows followed by substantially large floods. There was also a substantial amount of water loss that was a pressing issue. Headgates and canals were constantly destroyed by the floods. One local resident commented: "Chocolate in color, hideous in its roaring fury, the

torrent spared nothing in its path.” (Salt River Project) The floods were followed by a severe drought between 1898 and 1904, resulting in the loss of thousands of crop acres. Carl Hayden was directly affected by this flooding and witnessed his father's business take a substantial loss. He traveled to the Capitol and lobbied the Salt River Project as Congress debated the Federal Reclamation Act in 1902. Hayden was Arizona's primary influence on federal policy making in natural resource development, water reclamation, and land-use management. In 1902, a National Reclamation Act was passed into law allowing government loans to reclaim the West with irrigation projects. By creating the Theodore Roosevelt Dam and improving existing Hohokam canals, the government sought to improve water retention and delivery velocity of water by modernizing the canals. They did this by laying cement and replacing the head gates with a more reinforced cement delivery. This eventually led to 1917, when the operation of the canal system was turned over to the Salt River Water Users Association, later developed into the Salt River Project. The SRP succeeded in supporting a growing population. The SRP created seven canals: The Grand Canal (22.43 miles), Consolidated Canal (18.95 miles), Eastern Canal (14.73 miles), Western Canal (13.61 miles), South Canal (9.91 miles), Tempe Canal (9.76 miles), and New Crosscut Canal (3.4 miles), serving more than six million today. This clearly shows how the culture of the Hohokam people, in terms of their water accessibility and canal system, impacted this city and neighboring communities around it.

As we look into the Hohokam influence on modern-day Mesa, we fully understand how important these canals are. Some of our largest irrigation systems come from ancient architecture that no one could have ever imagined. The impact of these canals shape our modern streets, environmental communities, such as the SRP, and our own newer canals. On top of this, we have Hohokam architecture such as the Mesa Grande, which still survives as a deep part of Mesa's

roots. These efforts largely shape our culture and the importance of preserving historical areas.

Finishing off, hopefully this information is interpreted as an effort to keep Arizona culture alive.

## Works Cited

Kohler, Timothy A., and Kelsey M. Reese. "Long and Spatially Variable Neolithic Demographic Transition in the North American Southwest." *Proceedings of the National Academy of Sciences*, vol. 111, no. 28, 2014, pp. 10101-106.

<https://doi.org/10.1073/pnas.1404367111>. Cited by: 100

Salt River Project. *The Story of SRP: Water, Jobs and Progress*. Salt River Project Agricultural Improvement and Power District, 2021, [srpnet.com/about/history](http://srpnet.com/about/history).

Trimble, Marshall. *Arizona: A Panoramic History of a Frontier State*. Rio Nuevo Publishers, 2022.