



## Montezuma Well

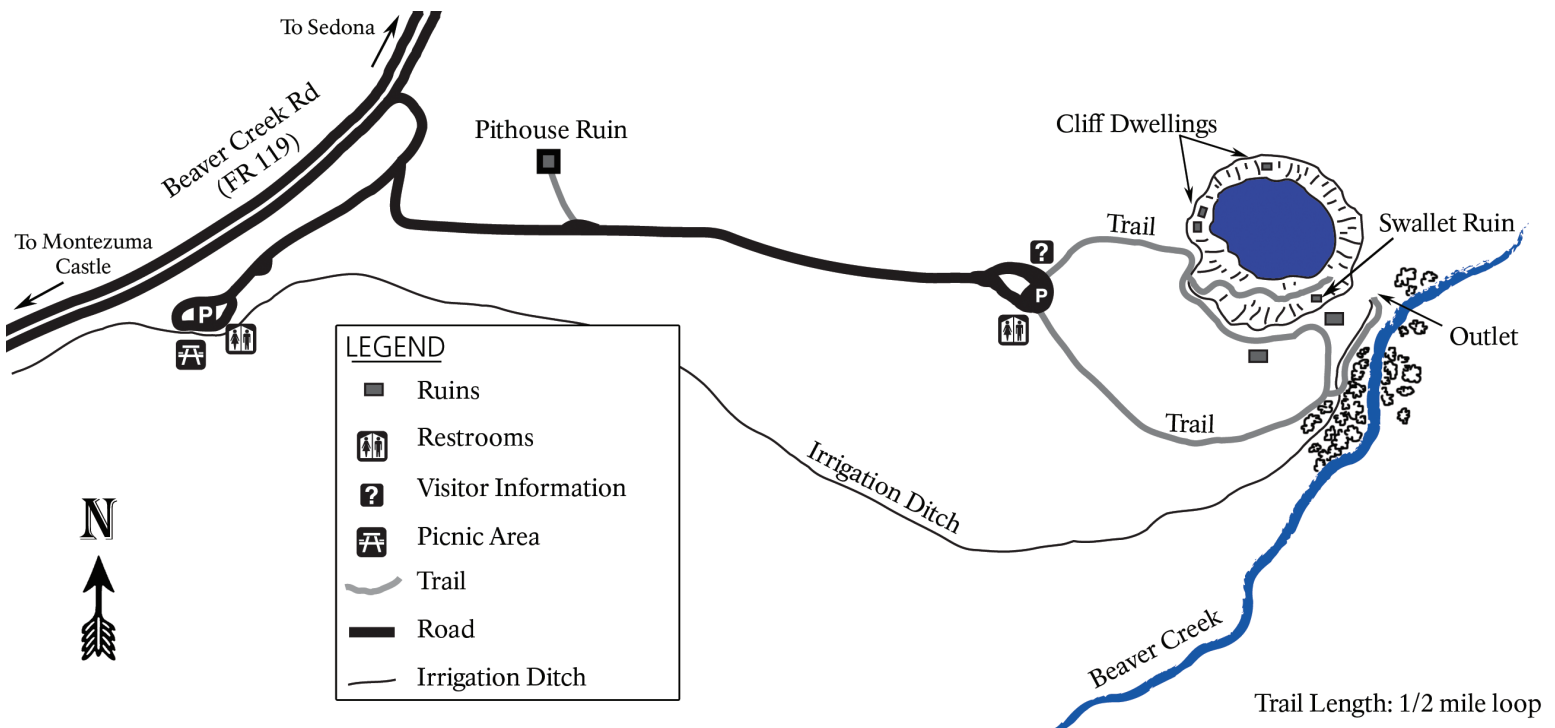


Montezuma Well is a place like no other in the world. This unique geologic feature, located 11 miles from Montezuma Castle, is home to species of animals found nowhere else. The trails take you past prehistoric Sinaguan cliff and cave dwellings, pueblo ruins, and a 1,000 year old irrigation ditch that is still in use by local residents today. Take your time and discover the tranquility of a place that has served as an oasis for wildlife and people for thousands of years.

### What is Montezuma Well?

Montezuma Well is a natural sinkhole 368 feet wide, with cliffs that tower 70 feet above the water's surface. Every day over 1.5 million gallons of warm (74°F) water flows into the Well, fed by three to four large underwater vents, some as deep as 56 feet below the surface. The water exits the well through a cave 300 feet long, emerging on the southeast corner

of the mound into an irrigation ditch originally constructed almost 1,000 years ago by the people of the Sinagua (see-NAH-wah) culture who lived and farmed here for centuries. Exploring the Well's trails (see below) takes you back in time to discover the ingenuity of a people whose remarkable legacy continues to inspire us today.



### Formation of the Well

The story of Montezuma Well begins 12 million years ago, when the large and shallow Lake Verde covered an area 27 miles long and 15 miles wide. About 2 million years ago, Lake Verde broke through the sediment dam at its southern end enabling the water to flow out of the valley. The lazy Verde River is all that remains of this gigantic lake.

Over millions of years, underground streams dissolved away the soft limestone formed by sedimentation from Lake Verde, producing caverns below the surface of the Verde Valley. 11,000 years ago one of these caverns collapsed into a sunken pool, creating what we now call Montezuma Well.

Ever since its formation, the constant supply of warm water flowing into the Well has provided a refuge for the wildlife and people struggling to survive in a harsh climate. This unique and isolated ecosystem enabled amphipods (small, shrimp-like animals), and the leeches which feed on them, to evolve into species found nowhere else.

Even today, the Well offers an oasis for park visitors and wildlife. As you explore this geological marvel, spend some time pondering these powerful forces still shaping the landscape around you, and discover for yourself why so many people still consider this place sacred.

## The Story of the Sinagua

The human story at the Well begins about 11,000 years ago with the arrival of the first nomadic tribes into the Verde Valley. For over 9,000 years this site was used as a refuge and resting spot, but during this time no permanent settlements were built. It wasn't until the practice of agriculture was introduced 1,400 years ago that people began to build their homes at the Well.



The first residents at Montezuma Well lived in one-room "pit houses" dug partially into the ground. Resembling the Hohokam culture of southern Arizona, these people settled at the Well to take advantage of the continuous water supply to irrigate

their crops, which included maize (corn), squash and beans. One of several known pithouses has been excavated and preserved near the entrance to the Monument, and sections of the "fossilized" irrigation ditch are still visible near the picnic area.

Four hundred years later, the predominant culture began to change in the Verde Valley, one that appeared closely related to the Sinagua of northern Arizona. The regional influence of neighboring tribes (trade, communication, etc.) also shifted, from the Phoenix basin to the people living to the north and east (the four-corners area near Mesa Verde).

At the Well, a thriving community built masonry cliff dwellings and hilltop pueblos for a population of up to 200 people. To support such a large village and help grow enough food for everyone, the Sinagua greatly expanded the irrigation ditch.

In the early 1400's, after nearly 300 years of occupation, the Sinagua culture dissolved and the village at Montezuma Well was abandoned. The exact reason for their departure may never be known, but a combination of disease, drought, and crop failures may all have contributed to their decision to leave their homes.

## The Value of Tradition

Scientists have only recently learned the value of the oral histories preserved by American Indian tribes. These stories, many of which have remained virtually unchanged for thousands of years, can provide insight into what the ancient inhabitants of the Verde Valley were really like. Archeologists are now trying to find answers to some of the most persistent questions regarding the Sinagua culture by working closely with their modern descendants, including the Hopi, Yavapai and six other affiliated tribes.

Why would the people living at Montezuma Well, known as the "Rain Clan" and "Corn Clan" according to Hopi legend, abandon a site that offered them so much? The Hopi, who now live in northeastern Arizona, say that it wasn't due to "drought, pestilence and death" as at other sites. They also do not know how long ago they left the ruins at Montezuma Well.

All they say is, *It happened a long time ago....*

*The Hopi have been an agricultural people for a long time. However, even though we have always grown our own food, life was still difficult. When our ancestors (who people now call Sinagua) found the Well, they realized life could be easier. So they stayed and made it their home. However, life became too easy and the people became complacent. It was as though they had forgotten who they were and how they should live. The village was in a state of shameless corruption. One day, the village began to shake and the houses caved in. Water gushed in and filled the hole where the village once stood. Suddenly, a great serpent rose up out of the water in anger at what the people had become. Upon seeing the serpent, everyone became very scared and ran away to the north and east, never to return.\**

This story, and others like it, may hold clues to solving one of the area's most enduring mysteries.

\* Summary of "The Legend of Montezuma Well", as told by Fred Lomayesva of the Hopi Snow Clan.

## From Novelty to National Monument

The arrival of European Americans in the mid-1800's signaled a change in the role Montezuma Well would play for the people of the Verde Valley.



This 1866 sketch by Edward Palmer is among the earliest known images of the Montezuma Well ruins. It reveals a fascination with ancient civilizations that persists throughout American culture even today. The introduction of modern technology into the Verde Valley meant that Montezuma Well's

significance for people as a means of survival had diminished. Instead, the unique geological and cultural features of this site became a curiosity. Automobiles, in particular, helped turn the Well into a tourist novelty. It was this fascination that threatened the scientific, cultural and ecological integrity of the Well for many years as more and more people arrived to search for artifacts and loot the ruins.

In 1947, the National Park Service acquired Montezuma Well as a sub-unit of Montezuma Castle National Monument to ensure protection of the its unique resources. Since then, scientists continue to study the Well's unique ecological, geological and cultural features, while visitors come to enjoy its solitude and tranquility.

Even today, Montezuma Well remains a sacred site for many local tribes, including the Hopi, Yavapai and Apache people. It's status as a National Monument provides the Well a certain amount of protection, but it is up to all of us to respect and preserve this sacred place as a treasured oasis for everyone who wishes to discover its secrets.