Ancient Waters, Limestone is Born

By Ranger Mike Hamende

Millions of years ago, the ancestral Verde River flowed much as it does today. Then, a volcano erupted near Squaw Peak (the highest mountain you can see from the monuments, with all the antennae on it) and the resulting lava flows blocked the exit of the Verde River to the southeast. This created a lake that began filling with sediment. Millions more years went by, and the lake was quite shallow and sometimes dried up altogether. The tiny creatures that lived in the lake died and fell to the bottom. The salts and minerals that the river collected as it flowed from the mountains to the northwest precipitated out as well. This material collected to many thousands of feet in depth to make limestone.

Finally, the river was able to breech the lava dam and begin to flow again. As it flowed, it cut the Verde Valley that we see today. While the river has cut through thousands of feet of limestone created as the sediment piled up and time and pressure turned it to stone.

There are still thousands more feet of limestone below your feet! This limestone block is called the Verde Formation. It lies beneath most of the rock layers of the Grand Canyon and Sedona. This means it is very old.

Geology plays an important part in creating a context for all three of the monuments that are part of Montezuma Castle and Tuzigoot. The environment and materials for construction are the result of the geology of the Verde Valley. The southwest is a place where geology comes alive because there is not a lot of soil to cover the rocks. You can see the geologic history of the region laid bare right before your eyes! Unlike other places where you have to imagine what the geology looks like. Most of the National Parks and Monuments in the West feature geology as their center pieces; it is the geology that creates the parks.

The caves containing these ancient structures are the result of this limestone’s ability to create caves. And the walls of the ruins at Montezuma Castle, Montezuma Well, and Tuzigoot are primarily constructed of this local limestone. So, without geology our monuments would not exist.
The Western National Parks Association had its humble beginnings in Casa Grande National Monument in 1937. Here, the parks staff realized that a nonprofit organization acting in concert with the National Park Service would aid in site interpretation, as well as providing an easier means to share the stories of the park with those that visit. The following year, after Congress approved a motion for such entities to exist, the rangers started the Southwest Monuments Association with a mere $234.50 to assist eighteen separate parks and monuments.

From these humble beginnings sprung an organization which now is involved with sixty-five parks and monuments scattered throughout eleven states. Today, we operated bookstores at these National Park Service sites, plus an expansive online store with more than 600 educational products. In addition to developing interpretive publications, the Western National Parks Association supports park research, and also helps fund programs that make park visits more meaningful to those who pass through these amazing locations like those found in the Verde Valley. After all, there is no wealth in the world like knowledge; and no greater poverty than ignorance.

Although our name has changed more than a few times since we started, one thing remains the same: our commitment to promote the preservation of the National Park System and the resources within by creating a greater public appreciation through education, interpretation, and research. Most of the funds obtained through bookstore sales go directly to the parks and monuments where they are located. In fact, the Western National Parks Association makes donations to the National Park Service on the order of around $2 million dollars annually. Overall, we have been successful in our goals, and hope to continue in that direction in the future.

So, for those of you who have ever bought a book, postcard, magnet, or Passport book please consider this: it may seem like a small trinket or keepsake for yourself. But to us, it is a dream coming to life and the reality of a future where teamwork really does work to protect the places that we treasure.
Upcoming Events:

**July 4-17, 2010**
Flag to be at half staff until July 6, 2010 to honor Senator Robert Byrd’s life.

**July 4, 2010**
Happy Independence Day!

**July 6-9, 2010**
Jr. Ranger Camp at Montezuma Well National Monument (Pre-registration required).

**July 13-16, 2010**
Jr. Ranger Camp at Montezuma Well National Monument (Pre-registration required).

View Through the Lens

Marine Master Sergeant Dan Akee and his wife at Montezuma Castle National Monument sharing the history of the Navajo Code Talkers and their important roles during World War II at a special Memorial Day Celebration. Photo taken by Anne Worthington.

Did you know?

Hummingbirds need spiders? Absolutely! Hummingbirds use spider webs to weave their little cup nests. This sticky, spider’s silk helps hold together all of the other materials used in the nest like lichens and animal hairs making the nest wall up to 2 inches wide. And it’s elastic! That’s right! The spider’s silk is elastic enough to expand and accommodate the growing hummingbird chicks.
Rebuilding The Past

Look at the picture below. It is a layout of a floor of ruins that you, the archeologist, has found. From the word list below, draw in the artifacts that you found in these rooms. Then, label the rooms with one of these three descriptions of room use: ceremonial, preparation, living based on the artifacts you found.

**Artifacts Found:**
- Yucca Sandal
- Obsidian Arrowheads
- Large Clay Pot
- Fire Pit
- Corn Cobs
- Woven Mat
- Broken Ladder
- Cotton Weaving
- Weaving Loom
- Stone Axe Head
- Turquoise Beads
- Shell Necklaces
- Matate & Mano
- Pottery Sherds
- Walnut Shells
- Pottery Paddle
- Woven Basket
- Gourd Rattles
The Ranger Review is designed to give you more information about what to see and do while visiting our sites. We hope that you enjoy seeing our parks from a Ranger’s point of view!

Editor
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Comments? Write to:
Montezuma Castle National Monument
Attn: Laura Albert
P.O. Box 219
Camp Verde, AZ 86322

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Park Happenings & Funny Pages
By Ranger Laura Albert

Adventures of a Red-Head: Blondie the Fox in the Verde Valley

Mama! Mama!

Hey! Swamping time! What’s that sound?

I can’t find them! I want my mama!!

Hey, don’t cry. We’ll find your family.

What did your father say about running off? He’s going to have your tail when we get home.

Some people’s parents... kids just do that to you, I guess...