

Camp Verde Field Trip Photo Summary

On May 21, 2022, Rim Country Chapter of the Arizona Archaeological Society sponsored a Field Trip to some places of interest in the Verde Valley at Camp Verde, Arizona. The original plan was simple, but it became an information and sensory rich event.

This Field Trip included three very interesting sites associated with the Camp Verde area of the Verde Valley, all very close to each other, all with historical or prehistorical significance, or both ...

Verde Valley Archaeological Center

Dyck Collection of Prehistoric Perishable Artifacts

Artwork, minerals, cultures, and more

Meteorites Collected in the Rim Country by Prehistoric Americans

Camp Verde Salt Mine

Prehistoric and Historic Salt Mining over 2000 years

Fort Verde State Historical Park

Military Medical Practices in the 1870s & 1880s

Arrow removal, Bullet removal, Head wounds, Skull surgery

All photos are by Dennis DuBose unless otherwise noted. All text, comments, and photo captions are by Dennis DuBose, who is solely responsible for errors.

Verde Valley Archaeological Center

The Verde Valley Archaeological Center recently reopened in a new larger facility at

460 Finnie Flat Road
Camp Verde, Arizona

The parking lot was the meeting place as Field Trippers provided their own transportation.



Field Trippers Arrive at Verde Valley Archaeological Center



Field Trippers In the Foyer of VVAC Signing. The Mural was Painted by a Hopi Artist. It Illustrates the Elements of Nature Important to Traditional Hopi Life



First View of Artifacts inside VVAC. Most of these of these large Ceramic Vessels were Reconstructed by Assembling the Broken Potsherds



Viper-Headed Wooden Wand and Fire-making Items



Phoenix Polychrome Salado Culture



Black on White Red Slipped Jar

These two jars are shaped like the seedpod of the Datura plant, which can be found growing wild in Arizona



Datura Jars Southern Sinagua AD 700-1450



Datura is a poisonous plant native to North America related to nightshade, belladonna, tomato, and potato. Common names are thornapple or jimsonweed (Jamestown weed, after the English Virginia colony of Jamestown). It has been used for medicinal purposes and for its properties to induce visions, especially the seeds and flowers. The flowers are large beautiful white trumpets. The seed pods are “thornapples.” Prehistoric, historic and modern Americans have used them for inducing visions. These jars were made in the shape of the Datura seed pod. Perhaps they were originally used to hold collected Datura seeds.



Datura Flower and Seedpod, from *Wikipedia* Internet Website



This "Modern" Ponderosa Pine Cross Section Was used to Illustrate Tree Ring Dating. This tree sprouted as a Seedling in 1664 and was Cut in 1972



Shell Frog



Yavapai War Club



The Dyck Ranch Cave Site from Which the Dyck Collection Artifacts Came

Painter Paul Dyck owned a ranch near Camp Verde. He arranged to have this archaeological site professionally excavated by Dr. Charles Rozaire in the early 1960s. Many perishable artifacts were recovered in a remarkably preserved condition, due to the protection of the cave. They were stored for many years on the Dyck ranch. When later the heirs were planning to sell the ranch, they gifted the collection of artifacts to the Verde Valley Archaeological Center. These artifacts are still being studied, documented, and catalogued. Together they belong to the Paul Dyck Foundation Collection. There are some 40,000 items in the Collection. The Center also has artifacts from Antelope House, Tonto National Monument, and other locations. Some are on public display at the Center.



Yucca Sandal, Southern Sinagua, AD 1050-1325, Dyck Collection



Yucca Cordage Net, Possibly for Catching Small Game, Dyck Collection



Bird Snare, Dyck Collection

But how would this work? VVAC had an illustration of a Mimbres Bowl that appears to show scattered seeds in a miniature stockade fence with openings having snares hanging from cross sticks.



Mimbres Culture (New Mexico) Bowl Illustrating Bird Snares

However, the Dyck Collection bird snares are not quite the same form as the ones illustrated on the Mimbres Bowl.

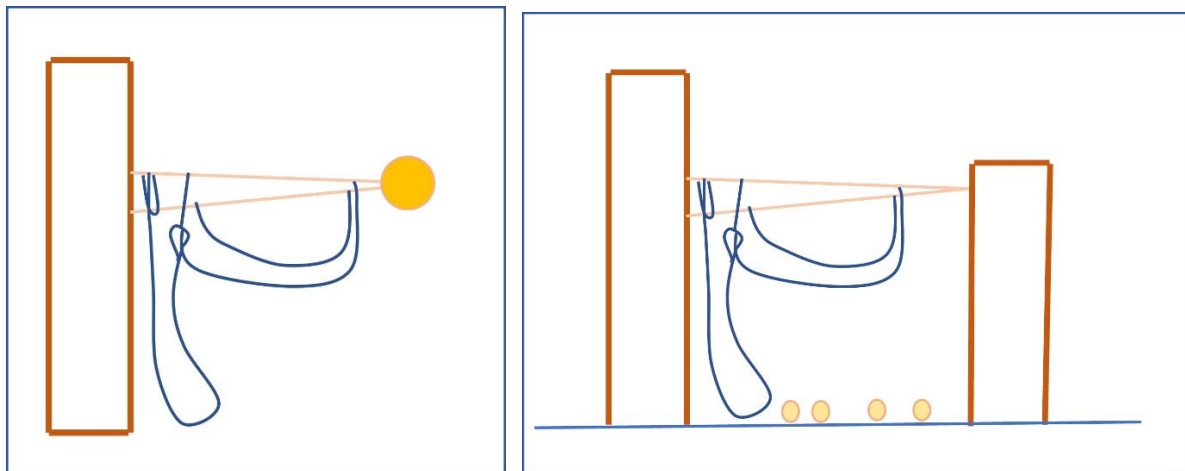
At the risk of being totally wrong, I am suggesting an alternative snare configuration possibly more in line with the Dyck Collection Snare. When I was 12

and 13 years old, I subscribed to a monthly magazine called Junior Natural History, I believe. One issue had an article about snares used by peoples around the world. One was a bird snare. It was pretty simple and I constructed one. I could demonstrate it working by poking the trigger with a stick, but I never caught any birds. I am sure it would have been illegal if I had.

This bird snare used a slip noose hung over a short stick blunt on one end and pointed on the other, just like the Dyck snares. The stick served as an inviting but precarious perch that would collapse under the weight of the bird.

When I first saw the Dyck Collection snares I recognized them as pretty much identical to the working part of the snares in the magazine from half a century ago. I have since seen articles describing the same perch mechanism bird snares, with a variety of ways of doing set bracing and tension method.

Here is how they work ...



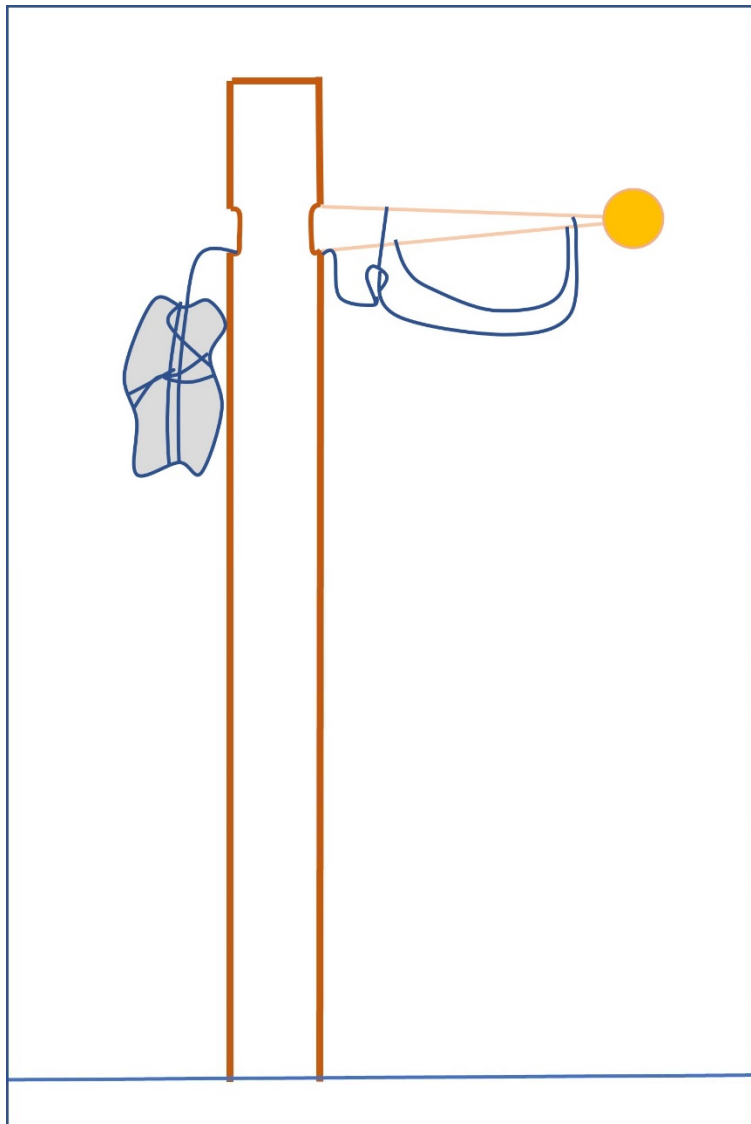
Perch Braced in a Notch, Crevice, or Hole Perch Braced Between Two Supports

The bait could be stuck on the end of the perch or on the ground beneath it, or both.

The Dyck Collection snares have the noose cord attached to the blunt end of the “perch” stick, as I have illustrated here. I am speculating that this was to prevent the two key parts from getting separated and lost in use. For this to work, the noose line would need to be additionally secured to an object to keep the bird from escaping.

One version I have seen illustrated used the weight of the bird landing on the perch to both release the perch and apply tension to the noose. The noose was secured to the support.

However, all other versions I have seen illustrated always had the noose secured to something that would apply tension when the perch collapses under the bird's weight. The version below uses a stone weight. The noose line passes through a hole in the vertical upright stick into which the perch is inserted just barely tight enough to provide sufficient friction so that the noose line holding the stone weight up does not slide through. A bird landing on the perch to get the bait provides the weight to collapse the perch and the noose tightens around its legs as the stone weight falls.



This configuration was attributed to some Indians in Canada. The version I made in my teens used a bent sapling instead of a hanging rock to provide the tension on the noose.

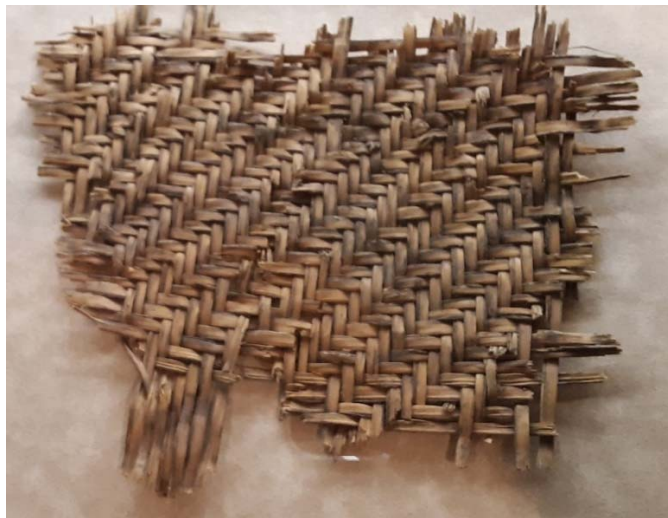
The VVAC has one of the most extensive collections of Southwest Prehistoric American textile (weaving, etc) artifacts.



Pouch



Basket Tray



Basket Weave



Thorn Needles

The fibers on the back end of the thorn needle would be twisted in with the end fibers of cotton yarn or thread to then use to repair a textile item.

Currently, the second thing you see as you enter the VVAC display area is ...

Meteorites!



Examining the Camp Verde Meteorite

Magnet Clinging to the Meteorite

Why is this Meteorite in an Archaeological Center ? Well, this 135 pound meteorite, about 2 feet long, a foot wide, and half a foot thick, was found in 1927 in a ruin along Clear Creek east of Camp Verde. It was in a stone-lined cist, “a little pocket in the earth walled and covered over with flat rocks.” It was wrapped in a turkey feather blanket!

Prehistoric Americans clearly believed that this was an extraordinary object, as also do modern Americans.

Ken Zoll is the Executive Director of the Verde Valley Archaeology Center. He is an expert on archaeoastronomy, the study of how prehistoric interest and observation of astronomical bodies show up archaeologically. Usually that refers to how prehistoric people observed the sun, moon, stars and other astronomical objects. But sometimes astronomical objects fall to earth, namely, meteorites. For example, Meteor Crater in Arizona. That meteor is called the Canyon Diablo Meteor.

Back on April 13 Ken Zoll did an in-person presentation for San Tan Chapter that was also Zoomed. It was about meteorites in North America that were found in

an archaeological context. He described how when a meteor breaks up or explodes as it comes in, the fragments all have the same chemical element “signature” and can be identified together. He said that outside of about 10 miles from Arizona Meteor Crater, 10 meteor fragments have been found in Arizona that match the signature of that meteor. They all are in a corridor that passes from the Colorado River through the Rim Country area past Arizona Meteor Crater to the New Mexico border of the Navaho Reservation (Apache County).

Four of them were found in association with archaeological sites. And they are all currently on display at the Verde Valley Archaeological Center (VVAC).



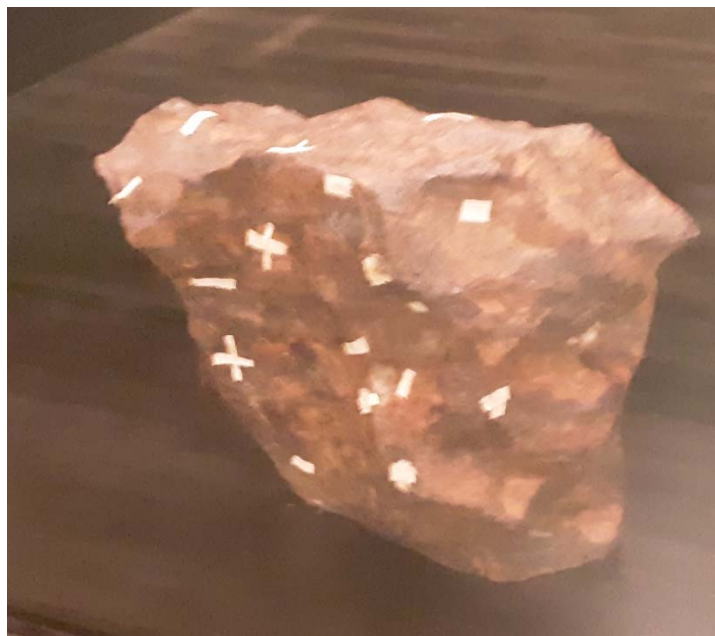
Approximate Path of the Parent Canyon Diablo Meteor Passing Across Arizona

Many thousands of years ago, the Cluster Meteor passed Southwest to Northeast, Shedding Fragments as it Went, then exploded forming Arizona Meteor Crater, and with some Fragments overshooting to the Northeast.

The four Arizona Meteor Crater Canyon Diablo Meteor fragments found in archaeological contexts are named from where they were found: Bloody Basin (Tonto National Forest near Agua Fria National Monument), Camp Verde, Fossil Creek, and Strawberry.



Bloody Basin Meteorite



Fossil Springs Meteorite

Both of these are about the size of a Cantaloupe

The Fossil Springs Meteorite was found near a site along the concrete flume in Fossil Creek that brought water to the Child's hydroelectric plant. It weighs 10.5 pounds.

The Bloody Basin Meteorite was found near the Red Creek Site in Tonto National Forest. It weighs 11.4 pounds. Apparently, it was originally in a dwelling that

burned. Burnt wood was in crevices of the meteorite. Carbon-14 date was between 1275 and 1390 AD.



Strawberry Meteorite



Camp Verde Meteorite

The Strawberry Meteorite is about the Size of a Child's Palm

The Camp Verde Meteorite is about the Size of a Large Oblong Watermelon

The Strawberry Meteorite, weighing half a pound, was found near Strawberry above Fossil Creek in the vicinity of several prehistoric dwellings. It has smoothed areas that make it fit perfectly in the fingers of an adult's hand. The far edge has wear marks consistent with its use as a knife or scraper.

From evidence at Meteor Crater, it appears that the Canyon Diablo Meteor came in at a low angle from the southwest. Apparently, it was shedding fragments before exploding over the Crater site, with some fragments continuing northeast.

If you missed Ken Zoll's April 13, 2022 San Tan Chapter presentation, you can listen and view much the same presentation at the link below from an earlier December 12, 2021 presentation he gave (The sound is not very good).

<https://www.youtube.com/watch?v=w78AGgxIUCA>



“Back” View of the Camp Verde Meteorite The “Bottom” Sliced Off

The “Bottom” of the Camp Verde Meteorite was sliced off to reveal its Internal Structure of Iron-Nickel Alloy Crystals. These two pieces of the Camp Verde Meteorite are displayed a few feet apart at VVAC

Other sections of the VVAC displays included many minerals found in the Verde Valley that were used by Prehistoric Americans, artwork (reproductions) by Paul Dyck, and personal artifacts and photos of Paul Dyck, plus displays featuring Hopi and Yavapai-Apache tribal traditions and culture.

Camp Verde Salt Mine

Geologic salt deposits in the Verde Valley were formed long ago by sediments from an inland saline-alkaline lake that once covered the area when volcanic activity blocked the water’s exit. The lake repeatedly filled and dried up leaving the Verde Formation up to 1600 feet thick with layers up to over 40 feet of salt, gypsum, clay, and other minerals containing sodium, calcium, and sulfate. Eventually, the Verde River cut through this geologic formation exposing access to the deposits.

These deposits were mined commercially in the 1920s by open pit and in the early 1930s by horizontal underground tunnels following rich salt layers hundreds of feet. About half the miners were Apache Indians. Briefly, the Camp Verde Salt

Mine was the most productive in the US. It shut down in 1933 due to competition from larger deposits of higher purity.

A wall sign at VVAC says ..

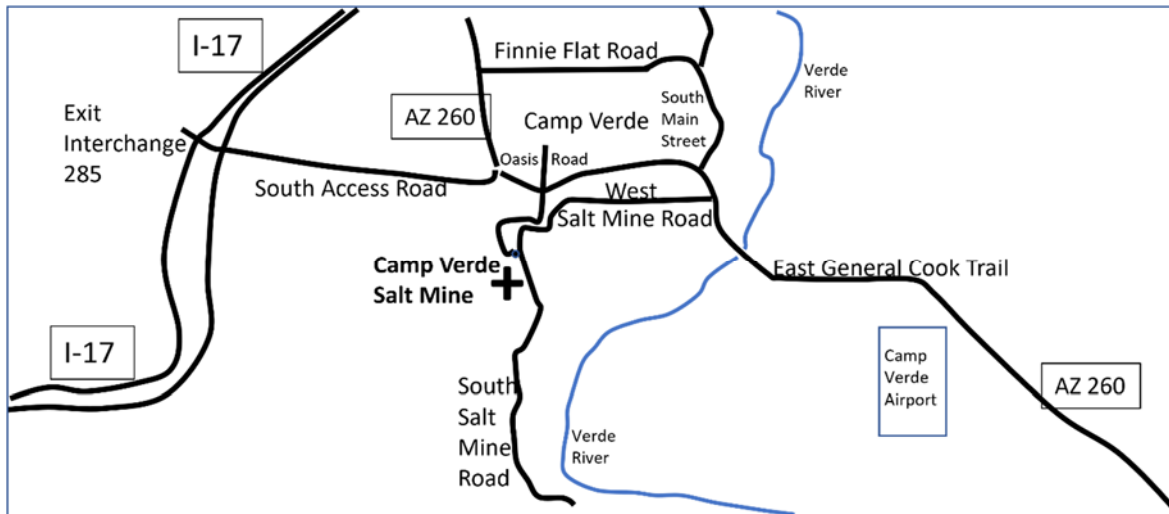
In 1926, the mine superintendent informed the American Museum of Natural History in New York that prehistoric artifacts and mummies had been found in the salt deposits. [A representative] visited the salt mine that year and was given a number of artifacts uncovered by the steam shovel. [The Museum] published a brief report noting that four prehistoric tunnels were present in the 100-foot tall cliff exposure; one of the tunnels was at least 200 feet long. It was believed the humans buried in the salt mine died of cave-ins.

Thus, the Camp Verde Salt Mine is one of the oldest known mines in the United States. Some archaeologists believe that the area was likely worked for salt as long as 2000 years ago. It was certainly being mined in the 1300s and 1400s. Reportedly, both the Hohokam and Sinagua cultures used the salt as a trade item with cultures as far away as Baja California, New Mexico and Mexico.

So, the Camp Verde Salt Mine played a key role in the life of the Verde Valley's early inhabitants.

The U.S forest service is currently planning to develop the mine as an interpretive site.

How do you get there ? The Camp Verde Salt Mine is located on South Salt Mine Road. You can access this by way of West Salt Mine Road directly off of Highway 260 (General Crook Trail) or by way of Oasis Road a little further west...



Map showing Access to Salt Mine Road off of AZ 260 Highway

You can't miss it. It is visible for miles. The historic mining tailings pile is the big white dome southwest of Camp Verde...



Field Trippers Arriving at the Camp Verde Salt Mine



Field Tripper Del Wright Coming in the Gate from Salt Mine Parking Area



Field Tripper Mike Clinton on Top of the Salt Mine Tailings
Field Trippers Marie Caron-Lyles and Jolanta Sokol in the Foreground



Viewing Salt Deposit Layers in the Bluffs from atop of a Historic Mining Structure
Foundation



Massive Salt Deposit Seen at a Distance



Historic Mining Operation Wall Structure at the Base of the Tailings Pile



Viewing the Historic Mining Tailings Pile from Near Collapsed Trackway



Remains of Collapsed Historic Mining Trackway



Historic Rusty Mine Cart Rails Protruding from Collapsed Trackway

Fort Verde

Fort Verde State Historical Park seeks to preserve and document the historic Fort Verde. It is located at

125 W Hollamon
Camp Verde, Arizona

The Fort Verde site was occupied by U.S. Army troops in 1870 with construction from 1871 to 1873. The Fort was an active primary military base during the Central Arizona Indian Wars in the late nineteenth century. The installation was abandoned in 1891.

Fort Verde was a base for General Crook's U.S. Army scouts and soldiers in the 1870s and 1880s. The park is the best-preserved example of an Indian Wars period fort in Arizona. Several of the original buildings still stand.



Model of Fort Verde in its Active Time 1870s & 1880s

There are three historic house museums furnished in the 1880s period, and the former Administration Building houses the Visitor Center with interpretive exhibits and period artifacts from military life.

Seventeen soldiers at Fort Verde were awarded the Congressional Medal of Honor. Six were Cavalrymen. Eleven were Indian Scouts.



Replica of Congressional Medal of Honor 1870s

The Field Trippers gathered in the Visitors' Center (Former Fort Administration Building) for a fascinating presentation on Military Medicine during the Indian Wars.



Our Guide for Military Medical Practice at Fort Verde

Photo by Mike Clinton

Our Guide to Military Medical Practices at a Frontier Fort had an extensive collection of tools, instruments, devices, medicines, and other items, mostly artifacts from the period and some replicas that he had personally assembled. He had also studied up on many procedures, medicines, and statistics of the period and environment. He never failed to give a confident answer to every question. He spoke and demonstrated for about an hour to an audience hanging on every word. And possibly to their stomachs.

Do not read the descriptions below of procedures if you are squeamish. Just take a look at the photos below, or perhaps stop here.

Our Guide had two tables with all sorts of medical instruments and medicines of the Fort Verde period spread out.



Instruments for Medical Bleeding, among other Items

Photo Marie Caron



Instruments for removing Bullets & Arrowheads and Others

Photo Marie Caron



Scale for Measuring Out Drug Doses



Some Tools to Remove an Arrow Point

Our Medical Guide demonstrated in the air two similar devices for removing an arrow. Both involved a wire loop on the end of a line wire in a tube. The tube with the loop largely retracted would be forced down through the wound to the arrowhead point. The stiff tube and loop would be manipulated to snag and lasso the point, the lead wire would be pulled tight, and then the entire mess would be pulled out. This worked if the point was embedded in flesh.

If the arrow point was stuck in a bone, it was more serious. The Military Surgeon could force the open loop down around the arrow and its point with a larger outer tube made from a hollow cane and thus lasso the arrowhead and pull it all out.

Apparently, about 70% of soldiers shot by arrows died.



Bullet Removing Tools

In the case of a bullet, perhaps it could be removed with forceps. If not, and the soft lead bullet was intact, the army Surgeon had a narrow rod with a pointed screw on the end that he could probe down to the bullet and screw it into it, then pull it out. Today, you can get a similar tool at a hardware store to remove wood screws with a damaged screw head.

If the bullet had hit a bone it was much more serious. Infection would kill the patient if nothing else did. If the wound was in a limb, the solution was to amputate the limb above the wound. That meant sawing through the bone. Amazingly, survival was about 75%, our Medical Guide reported.



Tools for Amputation

Anesthesia with Ether or Chloroform was a possibility. The anesthetic could be applied to a sponge in a funnel and the patient could breathe in the fumes from the open end of the funnel.



Funnel Used to Administer Anesthetic like Ether or Chloroform

A crushing blow to the skull from a fall or a weapon needed the damaged bone removed. The Surgeon had a trepanning tool with a cylindrical saw centered on a screw to do this. He could screw the device into the skull and then continue turning to saw out a circular disk of damaged skull bone.

The Pre-Columbian Inca People of South America used trepanning for head injuries. The major weapon of war in the area was a star-headed mace, sort of a weighted narrow club. Head wounds were common. Based on statistics of trepanned skulls for presence or absence (meaning died) of post-operation bone growth, archaeologists estimate that 75% survived. In the US Civil War about 40% of trepanned patients survived.



Trepanning Tool

For thousands of years physicians believed that intentional bloodletting from a vein was the proper treatment for many diseases. This belief lasted right up to the end of the nineteenth century and even by some into the twentieth.

Our Medical Guide chose Rim Country Chapter President Sharon DuBose to illustrate how it was done. There were various methods to draw the blood to the point of incision and to highlight a vein for it, including a loose tourniquet, application of heat, bending the wrist, and a suction cup. The glass suction cup had a small candle in it. When applied the candle would briefly burn, then go out, and the cooling air contracted, creating a suction on the vein to bring it visibly to the surface under the skin.

Various knives or scalpels were used to slice into the vein. Our Guide had a nice spring locked one. It could be cocked, put in position, released, and snap! The vein was cut. He demonstrated its use scarily close to her wrist she felt.



Simulated Demonstration of Medical Bleeding

Photo Mike Clinton



Knives for Making Cuts into a Vein to Perform Bleeding Treatment



Suction Cup for Highlighting a Vein for Making the Bleeding Cut