

Further Information

For maps and books call Canyonlands Natural History Association, (435) 259-6003 or visit www.cnha.org.

What can you do to protect your grandchildren's precious cultural Resources?

Please---never lean on, touch or stand on the walls of dwellings or other structures. Do not enter the structures. Do not touch the pictographs or petroglyphs because the oil from your hands will help deteriorate the images. Artifacts are disappearing at an alarming rate. Leave them where you see them. And do not walk on the middens in front of structures or dwellings. Preservation of these endangered resources is up to you. Your grandchildren will thank you for walking lightly and with respect.

ARCHAEOLOGICAL AND HISTORICAL SITES are protected by the ANTIQUITIES ACT OF 1906. It is illegal to damage, destroy or remove anything from the site.

Safety Tips

The environment in Southern Utah can be extremely harsh at certain times of the year. The weather is hot from June through August and it is not uncommon for the temperatures to rise past 110 degrees Fahrenheit. Summer rains come in late July or early August, bringing flash floods and creating hazardous driving conditions. In the winter months, temperatures can fall below zero and snow can make driving conditions hazardous.

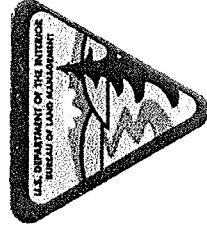
- Take precautions to guard against heat exhaustion during warm weather. There is limited shade along this route. Avoid overexertion, drink plenty of fluids, use sun screen, and wear a hat.
- Carry at least one gallon of water per person per day as there is no water available along this route. Keep extra water and food in your vehicle.
- Take precautions when you leave your vehicle. Carry a proper map and know where you parked your vehicle. This area is remote and far from medical or other assistance.
- Travel with a full tank of gas.
- Never camp in a wash or stream bed. A dry wash can flash flood in a matter of minutes from upstream storms.

Credits

Text - Dick & Katie Ambrose, BLM Volunteers

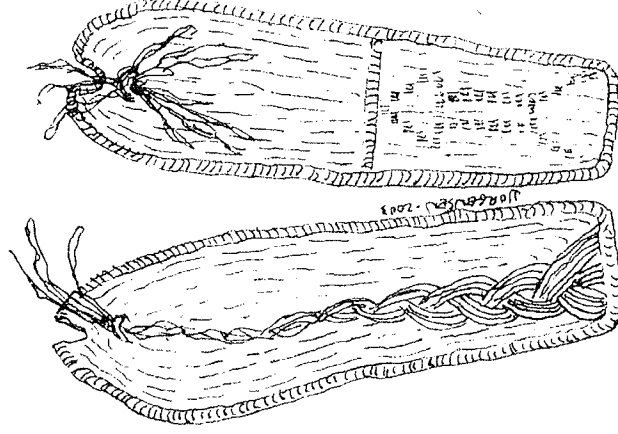
Illustrations - Jim Jorgensen, BLM Volunteer

Brochure Design - John Dutcher, BLM Volunteer



Butler Ruins Trail Guide

Walk in the Sandals of the Ancient Ones



BASKETMAKER SANDALS

Bureau Of Land Management
Monticello Field Office
435 North Main, P.O. Box 7
Monticello, Utah 84535
Phone - (435) 587-1500

Take yourself back in time. Jump aboard the time machine. As you walk this half mile to the cliff dwelling overlook, hike it in the Ancients' sandals. What was it like 1500 years ago? What were their daily needs at that time? What plants along the trail fulfilled those needs? To help you do this, look at the properties of different plants. What parts of the plant would be useful if you lived here? If you cannot figure out all the answers, don't feel bad. The Ancient Ones had thousands of years of accumulated knowledge to work with. Their lives depended on that body of knowledge that was handed down to them by word of mouth. They have been called primitive, but considering their technological skills and vast knowledge of the natural environment they were far from primitive. They knew how to collect, when to collect, and how to process the plants for their use. People lived in the area from about 6500 B.C. to around 1300 A. D. and plants played a monumental role in their daily lives.

There are 13 numbered posts along the trail. This brochure talks mainly about the different uses of the plants and gives you the opportunity to use your knowledge and observations to imagine how the Ancient Puebloans utilized the plants you see here.

Biological Soil Crusts

Although the soil surface may look like dirt, it is actually full of living organisms including lichens, mosses, microfungi, bacteria, green algae, and other organisms. They are beneficial to the soil in a variety of ways. The organisms in the crusts protect soil from erosion, assist in absorption of rainfall, and contribute nutrients and organic matter. It is very important for the health of desert plant communities.

Human impact of even a single footprint has long lasting effects on the desert soil. Recovery may take up to 20 years in places of higher rainfall and up to 250 years in places of lower rainfall, assuming the area is not again disturbed.

**PLEASE STAY ON ESTABLISHED TRAILS TO AVOID
"BUSTING THE CRUST"**

Butler Wash Viewpoint

The cliff houses across the canyon were built and occupied by the Ancestral Puebloans approximately 750 years ago. The design of the structures reflect a full range of living activities. Archaeological evidence indicates that, in addition to residential use, portions of the structures were used for ceremonies, storage, and tool making.

The main alcove contains four kivas, which are underground chambers where ceremonial activities took place. The kivas are located towards the front of the alcove. Behind the kivas are a number of habitation and storage rooms. In the cave next to the largest one another dwelling room is visible. Other small storage rooms can be seen throughout the canyon.

The people who lived here farmed and hunted. Corn, beans, and squash were grown in the deep soils of the broad canyon to the south. As erosion cut arroyos and lowered the groundwater level, irrigation sources may have disappeared making agriculture impossible. Whatever the reason (drought, overuse of resources, or pressure from nomadic Indians), this site was abandoned before 1300 A. D. The ancestors of the people who lived at this site are alive and well today. They live on the Hopi Mesas in Arizona, at Zuni and Acoma in New Mexico, and in several pueblos along the Rio Grande river.

Ethnobotanists speculate that hundreds of plants had uses as food, medicine, and materials. Plants provided the grocery, hardware store, pharmacy, lumber yard, clothing, and shoe store. Plants also yielded many colors of dyes for pots, baskets, and images on rocks. It is difficult to clearly understand what it was like to live here so many years ago, to "walk in the sandals of the ancient ones". We can only imagine and appreciate their knowledge, ingenuity, and technological skills that enabled them to adapt to the often times harsh environment of the high desert.

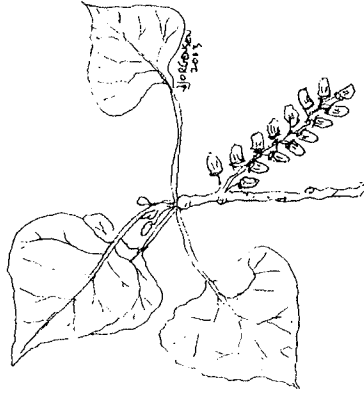
This unusual plant can be easily recognized from its numerous upright jointed branches that appear to have no leaves. Although, in actuality, they do have minute ones.

Question: What are some possible uses of this plant?

Answer: It is found in many ancient sites. Archaeologists assume that it was used to make pleasant tasting tea or a stimulating medicinal beverage as it is used today.

12. Fremont Cottonwood (*Populus fremontii*)

If you look below the cliff dwellings in the draw you will see cottonwoods taking advantage of the water on or beneath the surface. This wide spreading tree had many uses by the ancient ones.



FREMONT COTTONWOOD
(*populus fremontii*)

Question: What were they?

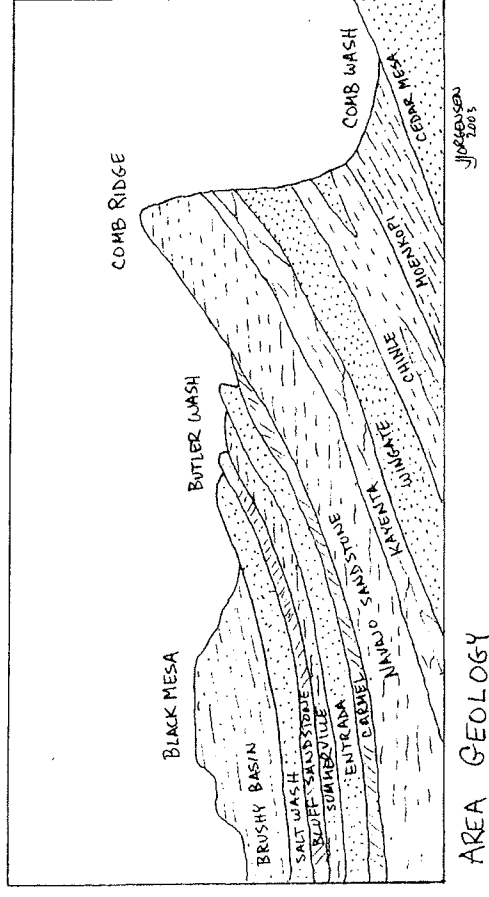
Answer: Cottonwood was the wood of choice when light or soft wood was needed (fire making hearth, drills, scrapers, awls, bows and roof beams). The soft fibrous inner bark also had many uses.

13. Other Useful Plants

Question: Can you name some of the other plants that grow in riparian areas or wet drainages that were useful in ancient times as well as today?

Answer: Besides the cottonwood, there are many riparian species that had many uses. They include box elder, coyote willow, horsetail, common reed and cattails.

1. Building Blocks For The Ancient Ones



AREA GEOLOGY

Comb Ridge separates two of the many sub-provinces of the Colorado Plateau. To the west of Comb Ridge is the Monument Upwarp. The Blanding Basin lies to the east of Comb Ridge. The diagram shown above is a geological view to the south showing formations in the vicinity of the Butler Wash Ruins.

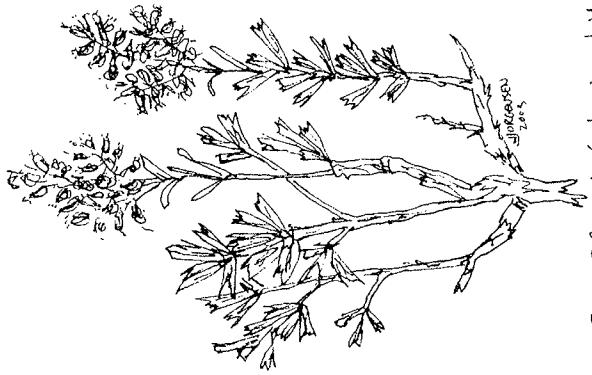
Comb Ridge forms the skyline to the west. This ninety-mile-long eastward-dipping hogback is one of the most striking topographic features on the Colorado Plateau. Comb Ridge emerged as a high angle fold about 70 million years ago. The surface of the east facing side of Comb Ridge is mostly Navaho sandstone which is thought to have been formed from large deposits of wind-blown sand. Water moving down through this porous sandstone resurfaced in the form of seeps and springs, dissolving the cement binding the sand grains together. Over a period of thousands of years, water and wind removed the loosened grains. This removed support for the overlying rock causing it to sluff away from the cliffs in alcove-shaped slabs. Ruins are often found in the resulting alcoves which provided shelter for the Ancient Ones. The easily shaped sandstone became the building blocks for the Puebloans who became expert masons. The structures that still stand today are testimony to their skill.

Question: What were some other uses for sandstone?

Answer: Sandstone had other uses besides building blocks for dwellings and storage structures. It was used for matates to grind corn and other seeds. Grooves made in the sandstone were used to sharpen tools and straighten arrow shafts. Sandstone also provided a canvas for painted and pecked images.

2. Big Sage (*Artemisia tridentata*)

Big Sage is widespread throughout the west and is usually an indicator of deeper soil. The grey, aromatic, three tipped leaves and fibrous bark are identifying characteristics to look for. It has always been a very valuable plant to indigenous peoples.



Big SAGEBRUSH (*artemisia tridentata*)

Question: Can you list some of its uses?

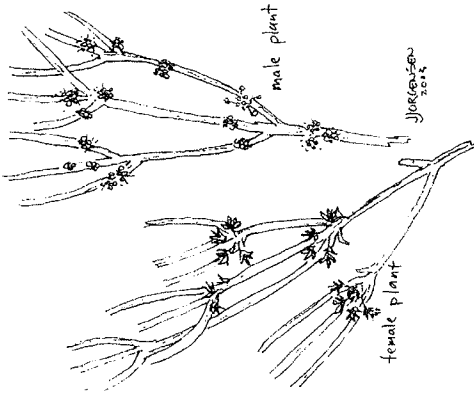
Answer: Flowers, seeds, and leaves were eaten for food or used for medicinal purposes. The fibrous bark was used for fiber and the wood for fuel. Big sage had many medicinal and ceremonial uses.

3. Utah Juniper (*Juniperus osteosperma*)

One of the common trees in this juniper/pinyon pine forest is the Utah juniper, commonly called cedar. Throughout the southwest, junipers have enjoyed a greater variety of Native American uses than any other plant. It has extremely hard wood, fibrous bark, and bluish berries in late summer and fall.



UTAH SERVICEBERRY
(*amelanchier utahensis*)



JOINT FIR or MORMON TEA
(*ephedra* spp.)

10. Utah Serviceberry (*Amelanchier utahensis*)

You will recognize Utah Serviceberry by the oval shaped or round leaves with toothed margins. The fragrant, white, five petaled blossoms in the spring turn to bluish black fruit that resemble tiny apples. The stout multi-branched shrub reaches tree size in ideal conditions. The wood is very hard.

Question: Why was Utah serviceberry so important?

Answer: The bluish, black fruit was collected by Ancestral Puebloans and their descendants. They can be eaten raw, cooked or dried. The hard, durable wood was used for planting sticks, hoes, arrow shafts, rods for weaving, digging sticks, and bows.

11. Joint Fir or Mormon Tea (*Ephedra* spp.)

This plant preserves well and shows up in many archaeological sites.

and contemporary Indians living in the Southwest.

Question: Why were yuccas so important?

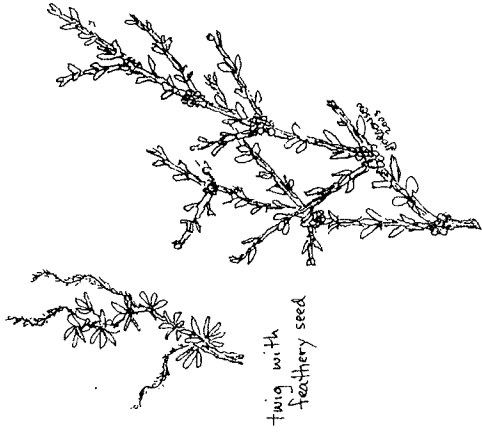
Answer: The leaves of the yucca seen here, as well as the larger leaved banana yucca, were used to make cordage. For example, yucca rope and twine was used to lash house beams, fix ladder rungs, fashion blankets or belts, make bow strings and fishing nets. Other cordage uses were trapping cords, sewing thread, animal skins, robes, hairbrushes, paintbrushes, baskets, bags, mats and tapestry. They also manufactured sandals from the fiber. Evidence indicates that yucca fruits were a part of their diet, especially banana yucca, which could be eaten green or dried. Flower petals are edible and could have been used. Roots contain saponin and could have been used as soap. There were some medicinal uses.

9. Little-Leaf Mountain Mahogany (*Cercocarpus intricatus*)

It is a medium sized shrub with stems that are crooked, stiff, spreading and spine like. This species of mountain mahogany is also recognizable by its short linear leaves born in clusters and small tubular reddish flowers which bloom in April. The feathery seed plumes are actually showier than the blossoms.

Question: Can you name some uses of mountain mahogany?

Answer: The dense, hard wood was used for roofing material, bows, digging sticks, tool handles and weaving gear. Mahogany roots produced a reddish-brown pigment for dyes. The boiled leaves had medicinal uses.



DWARF MOUNTAIN MAHOGANY
(*Cercocarpus intricatus*)



UTAH JUNIPER (*Juniperus osteosperma*) PINON PINE (*Pinus edulis*)

Question: How did Ancient Puebloans utilize Utah juniper?

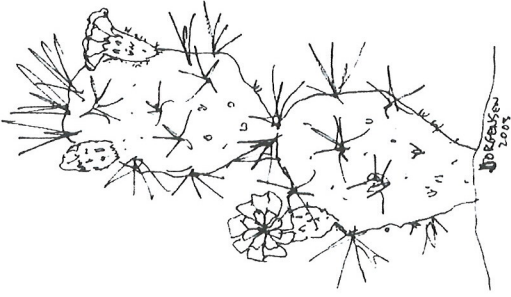
Answer: Juniper berries were eaten. The fibrous bark was used for cordage, logging insulation, roofing material and even toilet paper. Wood was used for construction and other implements as well as fuel. There is evidence that juniper was used in prehistoric medicines.

4. Pinyon Pine (*Pinus edulis*)

The other half of the dynamic duo in the juniper/pinyon pine forest is the pinyon pine. The range of this two needle pine extends higher in elevation than the juniper. For Archaic Indians and Ancestral Puebloans it has been referred to as the tree of life.

Question: Why was it so important in the good old days?

Answer: The delicious pinyon nuts were a staple in their diet. They contain lots of calories, twenty amino acids that make up complete protein and nine amino acids essential for human growth. They are an excellent source of potassium. Pitch was used to repair pots and make baskets waterproof. Wood was used for fuel and construction. The pitch was mixed with natural materials to bond their paints to the rocks.



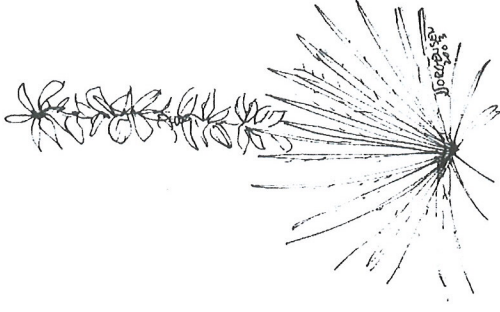
PRICKLY PEAR (*Opuntia* spp.)



CLIFF ROSE (*Cowania stansburiana*)



THREE LEAF SUMAC
(*Rhus trilobata*)



NARROWLEAF YUCCA
(*Yucca* spp.)

5. Prickly Pear Cactus (*Opuntia* spp.)

There are several species of these spiny plants.

Question: Can you think of some uses for prickly pear?

Answer: The fruits are edible. The fleshy pear can be eaten after thorns are removed. Dye can be made from the fruit.

6. Cliffrose (*Cowania stansburiana*)

Cliffrose is a common shrub in the area. There are many historic uses among the Navajo, Hopi, and Utes.

Question: Can you name some of them?

Answer: Cliffrose has many recent uses but no proven uses by the ancients. In recent times cliffrose had many medicinal uses. It was used as a gold dye. Its branches were used for arrow shafts. Its shredded bark was used for cradle board padding and pillow stuffing.

7. Threelaf Sumac (*Rhus trilobata*)

This shrub is recognizable by its wavy edged, dark green leaves, which are strongly three-parted. The pale yellow flowers that appear in early spring produce sticky, hairy, pea-sized reddish berries.

Question: What were the uses of threelaf sumac?

Answer: The berries were eaten. The wood or its fiber was crafted into baskets, snowshoes, loom rods and anchors, arrow shafts, digging sticks, scrapers, awls, and a multitude of ceremonial objects. Ceramic pots were repaired by winding strips of sumac through repair holes drilled at the point of the crack. The branches and leaves have been used as mordants. The leaves, twigs, and berries have been used in making dyes. There were also some medicinal uses.

8. Narrow-Leaf Yucca (*Yucca* spp.)

With an enormous variety of uses, yuccas are considered by some to be the most important non-cultivated group of plants for prehistoric