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**Current Grand Canyon Resource Issues:
Briefing Paper Series*****Preserving a Cultural Heritage***

The Grand Canyon is the physical embodiment of long time spans. Perhaps the best example of this is the incredible length of geologic time represented by the colorful layers of rock that are laid down on top of some of the oldest exposed rock in the world, the black Vishnu schist of the inner gorge. Compared to these vast lengths of time, human presence in the Canyon may seem negligible, but should not be ignored. Ancient peoples were exploring the depths of the canyon before the Egyptian pyramids were built.

Traces of human visitation are found throughout the Canyon. From delicate split twig figurines to fascinating petroglyphs to elaborate stone granaries, these people left a variety of evidence of their passage. These artifacts have been preserved for centuries by the dry desert air, leaving an irreplaceable record. Although long sheltered from environmental damage, the greatest threat to these cultural resources today is well-intentioned human visitation, usually well-meaning hikers and river runners. We have the opportunity to reduce this damage greatly through education. While maintaining the opportunity to visit sites such as Nankoweap and Unkar, visitation damage can be minimized with a few simple precautions.

BACKGROUND

Four thousand years ago hunters left split twig figurines in small limestone caves and crevices deep inside the canyon. It is tempting to call these sites remote, but to those who left the effigies, it was not remote; it was home. It is truly remarkable that such delicate and fragile objects could be carefully placed on small rock ledges and not be disturbed for 4,000 years.

How long the makers of the split twig figurines lived in the canyon is uncertain. The next evidence of human occupation is during the early phase of the Puebloan cultures, approximately 1,300 years ago, when the Canyon was occupied only on a seasonal basis. Then, about 1,000 years ago people began moving into the canyon in large numbers, culminating, after a century, in the occupation of hundreds of sites in the canyon and on both rims. The majority of the structures built during the influx are small, surface masonry pueblos with associated storage rooms, mescal pits, and, occasionally, kivas. Grand Canyon was completely abandoned by the Puebloan people 800 years ago.

The Pai culture spread over the southern plateau and penetrated much of the western and central part of the Canyon.

The Hualapai and Havasupai continue to live in part of the Canyon to this day.

Except for natural weathering processes, the structures and artifacts left by the prehistoric inhabitants lay largely undisturbed for hundreds of years. Until the arrival of Anglos. Early explorers and miners collected artifacts from the sites. Archaeologists undertook excavations and removed artifacts for safekeeping (split twig figurines were moved for the first time in 4,000 years). Glen Canyon dam was built and the fluctuating flows caused by "peaking power" eroded river banks and the archaeological sites located near them. And today, the increasing popularity of the canyon has brought more hikers and river runners, many of whom visit archaeological sites.

Increasingly, archaeologists are concerned about unintentional damage caused by well-meaning visitors. Much of the problem is cumulative, due to the pressure of number of visitors. The concern with unintentional damage reaches far beyond the confines of the canyon (it is shared by archaeologists across the Colorado Plateau). The damage is caused by such things as:

- **Erosion from trails:** Multiple trails, or "social trails" leading to sites, often cross the midden (waste piles), which contains a great deal of archaeological information, and along the base of walls. These trails lead to increased erosion and often accelerate wall collapse.
- **Piling artifacts on "museum rocks":** Visitors to sites often pick up potsherds, ancient corncobs, and rock flakes and pile them on a rock. The position of surface artifacts can provide important clues for archaeologists, clues which are lost when artifacts are rearranged.
- **Building campfires in sites:** Through the use of Carbon-14 dating, ancient soot can help determine when a site was inhabited. Soot from modern-day fires contaminates the older soot, rendering the Carbon-14 useless.

Education is the best hope for minimizing unintentional damage. Each person who visits a site needs to remember that no matter how lightly he or she walks, there is some impact, and that impact needs to be kept at an absolute minimum.

WHAT YOU CAN DO: Rules of the Road when visiting sites:

1. *As you approach, stop for a moment and think about how you can minimize your impact.*
2. *Stay off the midden (Usually a low mound near the site that is important to Native Americans and archaeologists), especially in alcove sites where the midden may have a steep, easily eroded side.*
3. *Walls that are stressed once too often can suddenly collapse. Don't use them as handholds to gain access into a site and never stand or climb on them.*
4. *Avoid walking along the base of walls built on slopes. Erosion at the base of walls causes them to topple.*
5. *If you pick up an artifact (including prehistoric corn cobs), please replace it where you found it. Moving artifacts from one portion of a site to another makes it difficult to chart a site's growth. Removing artifacts is, of course, illegal.*
6. *Charcoal and soot is used to date sites. Modern charcoal and soot contaminate the record, so never build fires or camp within a site.*
7. *New technology makes it possible to date rock art by analyzing the patina that has built up over the millennia. This patina can be altered by touching it or enhancing it for photography through scratching, pecking, chalking, or oiling. Please refrain from touching it or from using any enhancement techniques.*
8. *Children's natural curiosity and enthusiasm for climbing is easily aroused by the walls, nooks, and crannies found at many archaeological sites. Please keep them under close supervision while visiting a site.*