



Above, diagonal sand layers were laid down by the winds that built these fossil dunes; center, water flowing through cracks made these stone "draperies;" bottom, condensation forms stone "popcorn" on the ceiling.



*can you see these above?*

In the twilight region of the South Cave, use a flashlight to see the remarkable formations on the ceiling.

## CAVE TWILIGHT

Please do not venture into the maze of smaller passages in the back of the South Cave. These areas are off-limits to the public out of respect for Hawaiian traditions and to avoid stepping on the rare blind cave organisms that live there.

## CAVE DARKNESS

Total darkness constantly envelopes the most remote parts of the cave -- low, mazelike passages that are home to some of Hawai'i's rarest of many rare creatures. These are blind cave invertebrates, pale amphipods and isopods, and their predator, an eyeless cave spider. They occur only in this cave and a small number of lava tubes between here and the adjacent town of Koloa.

Right, Kauai cave amphipod; below, Kauai blind cave wolf spider.



# welcome to Makauwahi Cave

*...an underground guide...*

Pass into this nether world of fossils, artifacts and history, a rich opportunity to experience the passage of time and the changes that one place has seen over the centuries. Learn about extinct creatures, lost landscapes and ancient Hawaiians

Anyone who takes the trouble to peek inside this tiny triangular entrance will see that the inner sanctum here is a glorious vista of high cave ceilings, with limestone stalactites and a natural archway leading to the brilliant green interior of a huge sinkhole.

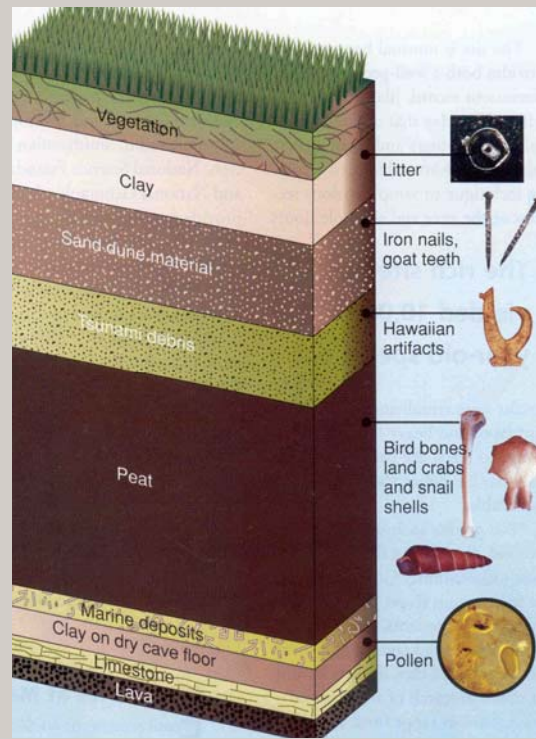
*But please don't forget that there are plenty of opportunities inside to bump your head or step into a hole, so be cautious and respectful of the cave's unique environment and history.*

If the gate is closed, please come back for one of the free guided tours offered every Sunday or at other times by appointment. For information call (808)482-1059 or email [makauwahi@gmail.com](mailto:makauwahi@gmail.com)



## INSIDE THE NORTH CAVE

The cave is itself a huge fossil, formed in the heart of an ancient sand dune that turned to stone over the ensuing 400,000 years. Groundwater etched away the limestone and dripping water mantled the walls with flowstone formations. About 7000 years ago the ceiling in the cave's central room collapsed, leaving behind a freshwater lake in the midst of Hawaii's largest limestone cave. Dead plants and animals that fell into this ancient lake were preserved, making this a world-class site for studying changes in past environments.



Cross-section of the 30-foot-thick section of sediments you are standing on, representing 10,000 years or more of the island's history.



There are many useful kinds of fossil evidence. These are some of the many kinds of evidence from the past recovered from this cave.

Under your feet here is a pile of sediments spanning 10,000 years or more. These fossil-bearing layers record floods, droughts, tsunami, hurricanes, and the living and dying of a host of island plant and animal species.

## IN THE MIDDLE OF THE SINKHOLE

Around the edges here, scientists have dug large pits below the water table. The treasures found include many types of plant and animal fossils, and artifacts from all the stages of human occupation of the island, from the first Hawaiian settlers to the present day. This information has been used to select native plants to grow here that were once part of the prehistoric landscape.

## ENTERING THE SOUTH CAVE

The magnificent arch of the large South Cave, with its multi-ton natural keystone, draws us in past a big square pit that has yielded many finds. It was here that old Keahikuni, in the 19<sup>th</sup> century, sat on his platform and saw the future in the "eye of the smoke." See Chapter 11 of *Back to the Future in the Caves of Kaua'i: A Scientist's Adventures in the Dark* by David Burney for the complete story, as told by his great-great-great granddaughter, the late LaFrance Kapaka.



A painting by Dr. Julian Hume depicts three species of fossil extinct birds from the cave, including a long-legged owl.