## DESCRIPTIVE SUMMARY OF A NORTH KONA BURIAL CAVE ISLAND OF HAWAII

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The science of archaeology has had a continuing interest in the mortuary customs of human cultures. Burials and their associated material items lend insight into certain aspects of human behavior. Mortuary patterning of a particular culture may provide data on social structure, social ranking, religious ideology, artistic expression and utilitarian craft.

Both prehistoric and post-contact Hawaiian burial customs have a limited representation in archaeological recording, analysis and interpretation. It was with this in mind that the authors conducted an archaeological survey of the North Kona burial cave in June 1975 to record 16 primary and secondary burials with the accompanying well-preserved material items. It appears that both prehistoric and historic mortuary patterning are represented in this cave.

Our immediate objective was a preliminary recording of the site prior to any vandalism or other burial disturbance. Field recording included a sketch map, complete burial descriptions, and photographs in both color slides and black and white print film. No samples of any kind were collected.

Bowen's (1961) thesis, the only summary of Hawaiian disposal customs, provides several ethnohistorical data pertinent to our discussion. Bowen lists ten prehistoric methods of Hawaiian disposal:

- 1. exposure to the elements
- 2. cremation
- 3. sea or fresh water disposal
- 4. pit burial
- 5. monument interment
- 6. earth burial
- 7. cist interment
- 8. heiau burial
- 9. house floor burial
- 10. cave interment

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Our paper deals specifically with cave interment. In brief, Bowen concludes the following regarding cave interment:

Caves were convenient places of disposal for the general population, with protection against the elements and molestation. Ethnohistorical sources suggest that the common people, maka'āinana class, remained attached to their land despite warfare and changes in ruling ali'i. Therefore, family caves were probably used continuously over long periods of time. In most cases, disposal caves were set apart exclusively for the dead and used for no other purpose. Several ethnohistorical sources outlined by Bowen provide data of considerable variation, and some contradiction, as to corpse positioning (e.g., extended vs. flexed) used in cave interment. Nearness of caves to dwelling areas does not seem to have prevented their use in disposal.

Bowen also mentions that caves were used for all types of human disposal well into the Christian period.

Bowen continues that historically, commoner caves seem to differ from ali'i caves in the following ways: though commoner caves were carefully hidden, the location was known to the entire family and not just to guardians. They were ancestral and used for generations, whereas ali'i caves were concealed and their location lost with the death of the kahu, or guardian. Ali'i remains consisted of a light, compact bundle of bones (secondary burial). The entire body of commoners went into the cave with some quantity of associated objects. Ali'i, in contrast, had a few associated materials. Commoner caves were kept in repair, altered and improved by those families to whom they belonged. Ali'i caves were abandoned and never spoke of once the remains were deposited.

Archaeological survey and recording of sites has provided further data concerning Hawaiian disposal caves. Bowen summarizes the archaeologically known geographical distribution of disposal caves as follows: disposal caves have been reported from Necker, Nihoa, Kaua'i, O'ahu, Moloka'i, Maui, and Hawai'i islands. Only legendary references have come from Ni'ihau, Lā-na'i and Ka-ho'olawe. It is evident that disposal caves are widely distributed throughout the major islands of the Hawaiian chain from Necker in the northwest to Hawai'i in the southeast. Lava tubes, niches, and crevices are found throughout the islands and have been utilized extensively for disposal.

Both the immediate and general area surrounding the North Kona burial cave are rich in archaeological remains, indicative of the once extensive human occupation. In the immediate vicinity are historic petroglyphs dated from the 1870's, additional burial sites, numerous living caves containing quantities of midden, prehistoric fish ponds, an ancient coastal trail, a historic horse trail, and several brackish water ponds. The adjacent ahupua'a contain several documented coastal settlements.

Inhabitants of this area probably relied heavily on maritime resources. Numerous tide pools, pebble beaches and a lagoon characterize the coastline. Several brackish water ponds in the area would have provided a fairly adequate water supply.

We can not be sure what plant resources were available to the inhabitants. Today the area is heavily infested with feral goats, and kiawe (Prosopis pallida) predominates. Typical coastal plants such as lau hala (Pandanus odoratissimus), 'ilima (Sida fallax) and native grasses were probably once present.

The cave contains sixteen primary and secondary burials. Upon entering the cave, in a short spur off to the right are the scattered incomplete remains of an individual which we designated as burial #1. No artifacts accompany the skeletal material.

Burial #2 is the scattered remains of an infant, placed on a small ledge protruding from the cave ceiling. Lau hala mat fragments are also present.

Burial #3 is a wooden casket lying on the cave floor in a short spur off to the right of the main chamber. The casket is made of wood planks, the sides being of a single piece, the top and bottom from three planks each. Both square and round-headed nails were used in construction. Large fragments of lau hala mat are under the casket and perhaps once surrounded the entire box.

Inside the casket the majority of the remains are unidentifiable. The body appears to have been wrapped in a blue and white plaid quilt and a patterned cloth, possibly linen, was tied around the head. Accompanying the body is a broken shell comb, a large shell button, two wood weaving shuttles and two metal cans. The head lies on a cloth pillow.

Burials #4 through #12 are situated on a large ledge, 1.3 meters above the floor, that extends out into the main chamber. All nine are extended burials. Burial #4 is on the outermost edge of this ledge. The body had been placed on a litter of eight poles; some have crudely

rounded ends and others are pieces of planks with squared edges. The ends of the poles are tied with a narrow twisted cordage and a plaited coconut mat rests directly on top of the poles. Above the coconut mat is a lau hala mat, possibly double weave, that appears to have once enshrouded the entire body. A fine white tapa with watermark patterns was placed over the lower part of the corpse. Also associate with the burial was a thicker tapa of red and blue designs on white. The patterns included red and blue stripes, blue sixpointed stars and connected rows of chevrons. Tapa of a similar design was tied around the pelvis region, presumably a malo. European cloth was also present, wrapped around a long bone.

Lying on the floor directly below the ledge was a lau hala pillow, probably associated with burial #4. The pillow was not woven but consisted of strips of lau hala, bound together with a piece of blue cloth and stuffed with rolls of lau hala.

Next to burial #4 is Feature 1, an empty curved plank of about three meters length. Perforations mark both sides of the lower end of the plank and a fragment of knotted cloth remains inside one. Lying directly under the plank is a red bandana. This feature may have been a lid or top for the adjacent burial, #5.

Near to burial #4 and feature 1 is a lone skull resting in a gourd fragment. It is not apparent which burial it is associated with.

Burial #5 lies in a canoe half, possibly of Koa (Acacia koa). The open end had been closed off with a snugly fitting plank and the underside had been burned. The canoe rests on top of a lau hala mat. There is evidence of a canoe patchwork but also a number of unmended holes.

The skull rests on a pillow and white cotton cloth is wrapped around the pelvis, ribs and near the skull. Brown tapa fragments lie near the feet.

Burial #6 lies in a canoe section. Both ends are open and a piece of cordage is tied around the head end. Lying near the feet are remnants of a straw hat, a pair of leather shoes, and a thin copper ring. The body is placed on top of a lau hala mat and cloth covers the lower portions. Under the canoe lie several thicknesses of lau hala mat.

Burial #7 is on a slightly curved, crudely roughed out board of soft, unidentified white wood. Burial #7 represents the only example of this type of wood. Lau hala mat accompanies the disturbed skeletal remains.

Burial #8 is also a canoe section with the head end open and a plank across the foot end. The canoe had been mended with a piece of wood lashed across the hole. A fragment of blue 'aloha" print cloth lies near the skull, possibly of recent introduction.

Burial #9 is situated almost directly under #8. The skeleton lies on an upcurved board that is much wider than any of the others examined. A board closes off the foot end and a piece of cordage runs across the top of the head end, through a hole on each side of the plank. The skull lies on a pillow and both tapa and European cloth fragments are present. Under the canoe is a lau hala mat, possibly of double weave.

The next two corpses, while designated #11 and #12, appear to be a double burial. On a single litter, of five poles across, lie two skulls, two pelvises and a number of limb bones. Associated grave goods include large lau hala mat fragments and three distinct types of European cloth.

Burials #13, 14 and 15 are located further back in the cave. They consist of three skulls and various postcranial bones lying on a slightly curved plank. A lau hala pillow, lau hala mat fragments and tapa fragments are found in association.

Burial #16 is located near the end of the cave amidst rooffall and rubble. It includes scattered post-cranial bones and no skull or fragments. Lau hala and tapa fragments are also present.

At the very back of the cave, lying under rooffall, we also found gourd fragments.

## Tentative Conclusions

No formal chronology has been established for disposal caves in the Hawaiian Islands. However, numerous disposal caves contain a significant amount of post-contact materials which indicate extensive use into the 19th century. No absolute dates were obtained from the cave, but grave goods suggest a temporal sequence from the prehistoric into the post-contact, or Christian, period. We estimate an approximate 150 year range for use of the cave, beginning c. A.D. 1750 to c. 1900. These data lend insight into the dynamic acculturation process occurring throughout the Hawaiian Islands in the 19th century.

From ethnohistorical data previously summarized, we would assume the cave to represent exclusive 'ohana, or extended family use, by members of the maka'āinana social class. The temporal range accounts for the variety of mortuary patterning and associated grave goods.

In addition, the botanical remains imply expansive environmental exploitation, i.e., a wide range of microenvironments under utilization. Groups living in these leeward coastal areas not only exploited the rich maritime ecosystem, but also the upland areas, including the native forest. Formal ethnobotanical analysis can lend further insight into environmental exploitation and utilitarian craft.

It is our recommendation that further field research be undertaken primarily involving physical anthropology. Age, sex, anthropometric, morphological, and paleopathological data can be recorded from these well-preserved skeletal remains.

It is of utmost importance that the cave be protected from vandalism, theft, and other disturbances.

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