which means it was burnt whilst it was covered in flesh. Botanical remains, including burnt Kekuna (*Canarium spp.)* seeds and wild Breadfruit fragments, indicate the consumption of plant foods and possibly the use of seeds such as Kekuna as a lighting source.

Stone tools are composed of quartz. The stone tools include backed flakes, bladelets, geometric microliths (lunates, triangles, trapezes), marginally re-touched flakes, cores, and debitage. In addition to stone, the site preserves a wide range of bone tools, including bone points, awls, worked long bones, polished implements, and tools derived from antler, ungulate bones, and teeth. Four teeth (three monkey canines and one barking deer molar) exhibit human modification through flaking, grinding, and scraping, likely to create sharp edges and facilitate hafting onto wooden or mastic shafts. These bone points functioned as hunting implements, probably arrow tips, and in some cases, double-ended bone points were used to ease attachment to shafts.

Fa Hien Lena is a key site for understanding prehistoric human occupation, technology, subsistence, and anthropogenic behavior within tropical rainforest environments of the country.

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LET'S PROTECT NATURE

YOUNG ZOOLOGISTS' ASSOCIATION SRI LANKA

ESTD 1972

Young Zoologists' Association of Sri Lanka
National Zoological Gardens,
Anagarika Dharmapala Mawatha,
Dehiwala.



Fa-Hien Cave

Fa Hien Rock Shelter, locally known as Pahiyangala, Fa Hien Lena, represents one of the most significant prehistoric habitation sites in Sri Lanka. It is situated in Yatagampitiya, Kalutara District, within the lowland Wet Zone of South-western Sri Lanka. The site is located approximately 400m asl. According to traditional literature, the cave is associated with the early historic residence of the Chinese Buddhist monk Faxian (Fa Hien), after whom it was named.

The shelter is basically carved into high-grade Precambrian metamorphic rocks and is considered the largest natural rock shelter in Sri Lanka. By calculation, it can accommodate around 3,000 individuals simultaneously. The cave consists of a single, laterally extended chamber with a massive concave overhang made of crystalline dolomitic marble with calc-silicate bands and gneiss rock units. The roof height reaches up to 30m in some sections, while the entrance spans approximately 45m in height and 53m in width. The cave formation is a result of the genesis being subjected to a combination of geological processes, which include structural joint exploitation, exfoliation, differential weathering, and gravitational mass wasting of massive marble beds. The progressive cliff retreat over geological time resulted in the formation of a vast concave overhang rather than a tunnel-like cave system. This structure is termed a pseudokarstic cavity. The cave lacks an internal drainage network. This has been a positive factor for the preservation of stratified deposits, as there is minimal erosional removal.



Excavations of Fa Hien Lena began in 1986 under the supervision of Dr. W. H. Wijeyapala, along with investigations led by Dr. Siran Deraniyagala, Dr. Nimal Perera, and several other teams in the late 2000s, mostly led by the PGIAR. Excavations produced a chronostratigraphy that spans from the Late Pleistocene (~48,000 BP) to the Early Holocene (~3,900 BP). The cave contains five main context layers (L1-L5), which have been subdivided into ten archaeological phases (I-X) based on lithostratigraphy, cultural inclusions, and radiocarbon dates. Among these, Phase VI is particularly notable, representing a period of intensive occupation dated to approximately 12,000 BP. The stratigraphy provides proxy data for multiple layers of human activity, with high concentrations of lithic tools, faunal remains, hearths, and evidence of burial rituals.

Fa Hien Lena has yielded some of the earliest evidence of anatomically modern humans, often referred to as the Balangoda Man. Early excavations in 1986-1987 revealed four fragmentary human skeletal remains, with dates ranging from approximately 26,500 BP to 5,500 BP. These remains demonstrated not only physical characteristics of early *Homo sapiens* but also evidence for burial rituals. The excavations unearthed a nearly complete human skeleton, indexed as the FH-8 burial. It belongs to an adult female aged 18-22 years at the time of death. This skeleton was located in a pit within Phase VI, and radiocarbon dates of associated charcoal placed it at 10,640-10,139 BP, making it a key Early Holocene burial context in Sri Lanka. Archaeological evidence indicates both primary and secondary burial rituals. Primary burials, such as FH-8, involved the placement of the body in a crouched position, with knees drawn to the chest and arms folded. Secondary burials often included the application of red ochre to cranial and limb bones after allowing the body to be naturally decomposed by leaving it out of the cave. From the findings of palynological analyses, pollen from the family Dipterocarpacea, a dominant lowland rainforest taxon, along with Caryota *spp*. (Palmae), Poacea, and a clump of fine Dipterocarpacea pollen, were found. At present, floral species belonging to these families are found in the surrounding habitats. The presence of floral materials such as Dipterocarpacea, Palmae, and Poacea pollen suggests the possibility of an inclusion of plant matter during burial, potentially as part of burial rituals. High concentrations of charcoal and burnt pollen indicate the use of fire, perhaps for cooking, clearing, or ritual purposes.

The shelter also preserves a zooarchaeological record. Excavations have produced faunal remains from over 800 individual animals. Among mammals, both large ungulates such as Spotted deer (*Axis axis*) and Sambar (*Rusa unicolor*), medium-sized mammals including Wild boar (*Sus scrofa*), and primates like the Purple-faced langur (*Semnopithecus vetulus*) and Toque macaque (*Macaca sinica*) were exploited. This also includes a tooth of calf Elephant and remains of locally extinct species, such as Rhinoceros phalanges, teeth of Sri Lanka gaur (*Bos gaurus*), and bone fragments of a Tiger (*Panthera tigris*). Other vertebrate faunal remains include reptiles such as monitor lizards and Chelonians, and Ichthyofauna such as bones, pharyngeal teeth, and ceratobranchial teeth of Ankutta *spp*. Giant snakehead (*Channa ara*), and Mahseer (*Tor khudree*). Invertebrates that were found include arboreal Molluscs (Acavus *spp*.) and freshwater and marine Molluscs. The presence of marine Molluscs at an inland rainforest site suggests either direct foraging at distant coastal zones or participation in trade or exchange networks with coastal communities.

Burnt bone fragments, hearths, and charcoal lenses indicate the use of fire for cooking, food processing, and perhaps social and ritual activities. Cut marks, impact fractures, and burning patterns on bones confirm the systematic hunting, butchering, and processing of animal resources. The scrape marks on the bones suggest the use of geometric microliths. Further proof that burning was used as a form of food processing, only about 20% of the bone was burnt,