

Roaring Creek

Life along an ancient Maya valley

Imposing pyramidal temples, elaborate pictorial art, complex writing and calendrical systems: all this was left by that most intriguing of ancient civilisations, the Maya.

Maya communities thrived (and their descendents continue to do so) throughout what is now western Honduras, Belize, Guatemala and south-eastern Mexico between about 300 BC and AD 950.

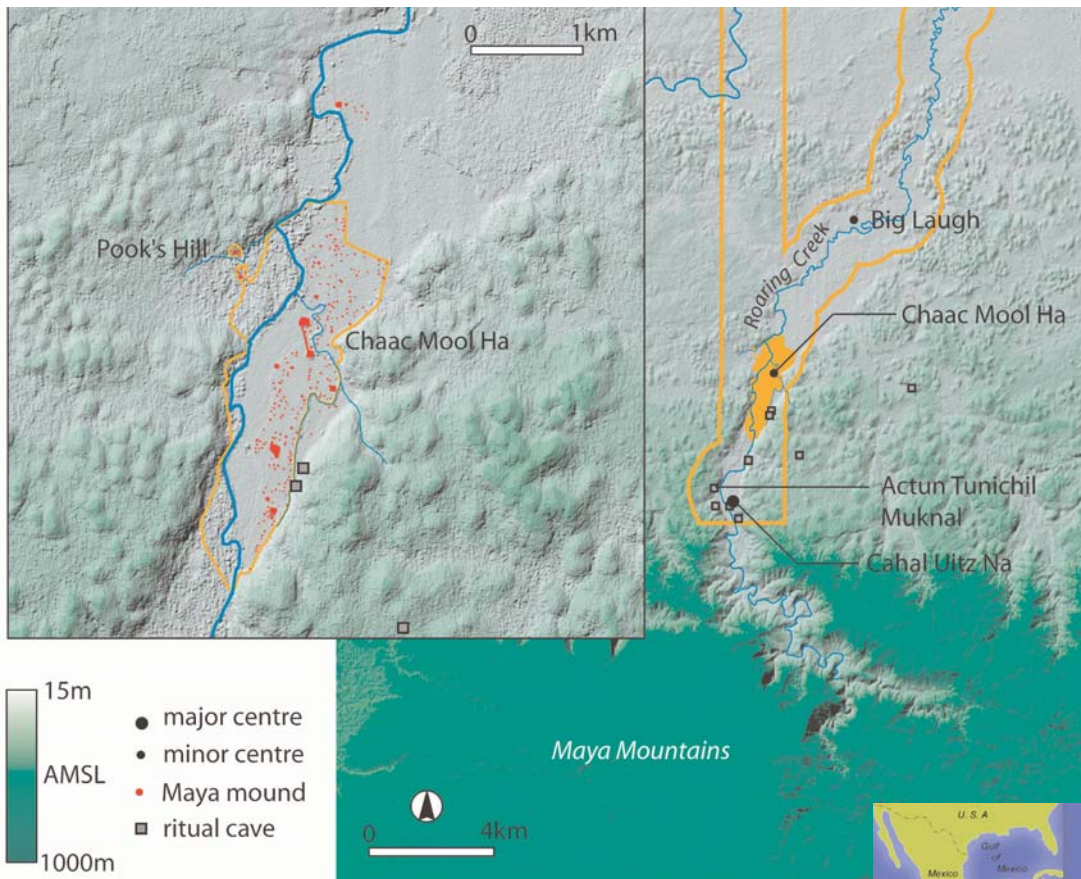
Current excavation and survey of Maya remains from the Roaring Creek valley in western Belize, is helping to shed dramatic light on the lives and landscapes of the Late Classic period of the Maya (c. AD 550-950).

This was a time when Maya communities were undergoing a population boom, accompanied by flourishing artistic achievement and monumental architecture. This trend is seen at Roaring Creek, replete with its numerous Maya houses, feasting halls, central squares, complex ritual activity, and beautiful artistic remains. Here, Christophe Helmke, Andrew Bevan, and Jaime Awe, reflect on their work and introduce us to the world of the ancient Maya.



A female skeleton from Actun Tunichil Muknal, covered in a thick layer of calcite.

Photo: H. Kettunen



Left. Map of the Roaring Creek valley. The inset shows a close-up of the area surveyed so far. The settlement mounds are shown in red.

Below. Map of the Maya world and some of its major sites.



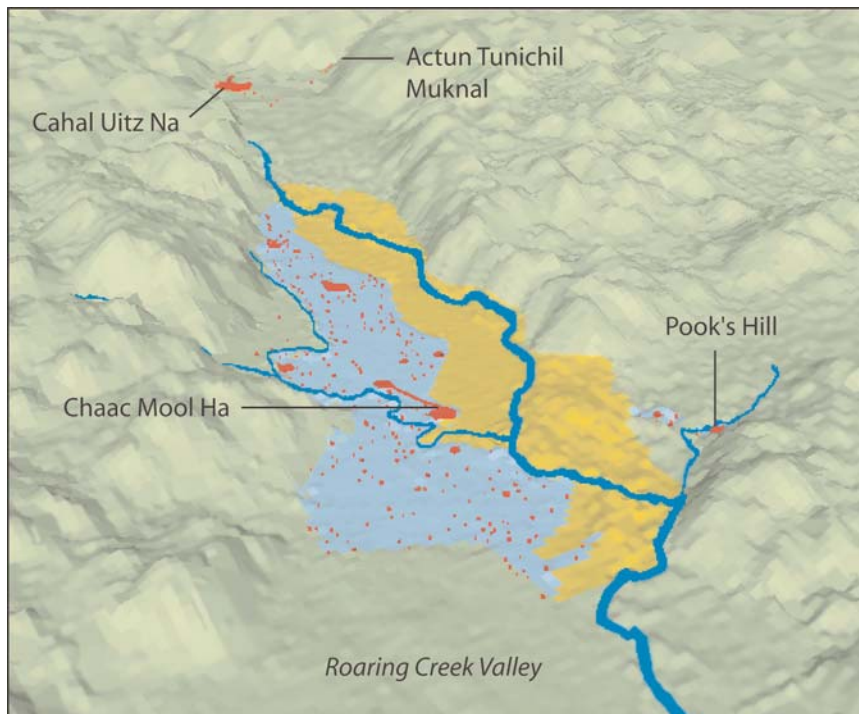
Today, the Roaring Creek valley in western Belize is made up of verdant jungle and open field systems, in which hide a Maya landscape of settlements and ritual cave sites. Though evidence of Maya occupation goes right back to the Late Formative period (c. 300-150 BC), most of the archaeology comes from the Late Classic period (550-950 AD), when the Roaring Creek valley became densely populated. At that time, the land becomes dotted with houses and the extensive network of caves that surround the valley become the place of increased ritual activity that seems to have included human sacrifice.

Living among the ancient Maya...

Through survey, excavation, and cave exploration we have been piecing together the world of the Maya living in the valley. However, archaeological survey in this part of the world is challenging since we have had to deal not only with open landscapes of pasture, maize fields and citrus plantations, but also with dense rainforest. In the fields and plantations, field reconnaissance is relatively easy

and large areas can be covered, but in the jungle, it is slow-going and confined to narrow corridors that we have to cut by machete. Nevertheless, the work is rewarding since we have found that both open and now-forested areas once supported dense Maya settlements.

Of course, our best view of Maya settlement is across the more accessible cultivated valley floor. Since 2001, teams of three to ten surveyors have walked in evenly-spaced straight lines, fixing the location of archaeological remains with Global Positioning Systems (GPS), collecting artefacts exposed on the surface, and recording other information such as the dimensions of features. From this information we have been able to plot a detailed map showing all the surface remains that we come across. Most commonly we find low mounds of stones - heaps of local



Left. A perspective view of the Roaring Creek valley. The survey area is shown in grey and the floodplain in gold. Maya house-mounds are marked in red and it is interesting that there are none of these on the floodplain - either because this area has been heavily disturbed by river movement and constant flooding or because the Maya used it for crops rather than dwellings. The topography for this view is derived from a relatively new method of terrain mapping: two Synthetic Aperture Radar (SAR) antennae are mounted on a jet flying at c.30,000 ft across the region and these take simultaneous, but slightly offset radar images of the landscape. These images are an accurate way of mapping roads, rivers and vegetation, but they can also be processed to produce a detailed Digital Elevation Model (DEM). Such DEMs are something of a revelation for archaeologists in Belize who have previously had to rely on old, relatively low resolution paper maps (for more information, see www.globalterrain.com).

limestone blocks, river cobbles and slate slabs.

Originally, the mounds were the masonry platforms upon which the Maya built their houses. Generally these 'house-mounds' are quite small, around 7 by 5m. Their actual houses were made out of wattle and daub, or pole and thatch. But most have not survived Belize's harsh tropical environment. However, such houses are still common today among more traditional communities. They remain popular because they can be easily rebuilt using local building materials if destroyed in a hurricane - something which happens all too often in this area.

From the archaeology, we can see that each Maya house had a hearth for cooking, plus spaces for sleeping and eating. We reckon that 5-6 people lived in each house, and were probably all members of the same family group. The ancient houses tended to be spaced at regular intervals of between 25 and 40m. Just outside the houses, the inhabitants undertook various small-scale industrial activities such as flint-knapping, weaving and possibly pot-making. Slightly beyond this, they had gardens where they would grow vegetables such as beans and squash, plus space for a few livestock such as turkeys, and some refuse dumps. Still further away, and often in areas separate from the houses, they had larger fields for crops of maize, the staple food of the Maya, both past and present. On the steeper slopes, they adeptly built terraces to preserve soil from erosion, while in marshy areas they often practiced 'raised field' agriculture. This was an intensive farming technique where the swamps would be partially drained by artificially raising certain plots above the water line and then

surrounding them with irrigation canals.

By 800 AD, at the height of the Late Classic Period, all the archaeology points to a valley that had become densely populated. As some families grew in overall size and prospered, they gradually organised themselves into informal clusters of dwellings, facing onto a communal open space between the 'house-mounds'. When certain families became yet more successful, perhaps by increasing their land holdings or by spending some of their time specialising in certain lucrative crafts, they might be able to build a more formal 'plazuela' group (Spanish for 'diminutive plaza'), with a shrine building, and other special amenities. Here we witness the emergence of something of a 'middle-class' in Roaring Creek valley replete with a more luxurious social life and high-status goods such as jade jewelry.

So far, we have surveyed six *plazuela* groups, and a good example of a typical *plazuela*, which well illustrates their relative wealth, comes from the site known as Pook's Hill (named after Kipling's Puck of Pook's Hill - wimsy on the part of the owners of the Pook's Hill Lodge and reserve). Pook's flourished throughout the Late Classic, but after about 950 AD, it was abandoned, along with countless other sites in the area. We have been intensively excavating the site since 2000.

Pook's is set amid lush rain forest on the western slopes of the valley. It is made up of a set of buildings encircling the plaza, a small quadrangular open space. There is a major structure on each of the four sides. To the east is a small shrine in which the inhabitants would bury their dead and make offerings to their deified ancestors. To the west is a

Right. Night falls over the Roaring Creek Valley



building that appears to have been a 'feasting hall', where venison was on the menu and drinks were served in beautiful pottery vessels (see the Box Feature on page 18). The merrymaking was accompanied by music played on small whistles known as ocarinas. We think that there were probably residential areas to the north and south.

At Pook's, we have discovered lots of finds that are typical of a higher-status Maya people. The most notable is the presence of jade, the ancient Maya's most precious material. This, they fashioned into beads and pendants for necklaces, and as decorative inlays for their own teeth. In addition, we found higher-quality stonework architecture, plus the remains of fancier foodstuffs such as peccary (wild boar), parrotfish, and venison.

The parrotfish, plus an incised Hawksbill turtle piece, come from the Caribbean coast, while Teotihuacan-inspired pottery styles, green obsidian, and

a circular shrine points to links with Mexico. This shows that the people of Pook's were clearly keen on exotic, hard-to-come-by goods, which must have bolstered their status in society.

All this points to how much better-off such families were from their poorer neighbours living on simple house-mounds. Indeed, the fairly regular spacing of our six plazuelas, about 300-500 m apart, is one rough indication that such families exerted some control or influence over the families living around them, who may officially have been tenant farmers or other dependants. However, it is unlikely that the inhabitants of Pook's held much political power, and most of the valley's communities were no doubt under the immediate control of an even larger site, Chaac Mool Ha (a modern Maya name meaning 'Roaring Water').

We have not yet excavated the nearby site of Chaac Mool Ha, but our surveys show that it was made up of two large

plazuela platforms linked by causeway. It in turn probably served as an administrative outpost for an even larger and more impressive major centre of Cahal Uitz Na ('Mountain House Settlement') to the south, a monumental complex covering some three hectares and strategically located at the narrow point where the Roaring Creek emerges out of the Maya Mountains. Cahal Uitz Na was probably the local 'royal' centre for most of the Classic period, but it was itself dwarfed and indirectly dominated by the really top-notch places such as Tikal (in modern-day Guatemala) and Caracol (located in modern-day Belize), which were the real political and economic powerhouses in this part of the Maya world.

Though only some of the 'house-mounds' in Roaring Creek yield enough pottery sherds for us to date them securely, those that do were all occupied during the Late Classic (550-950 AD). From our surveys, it seems that there were

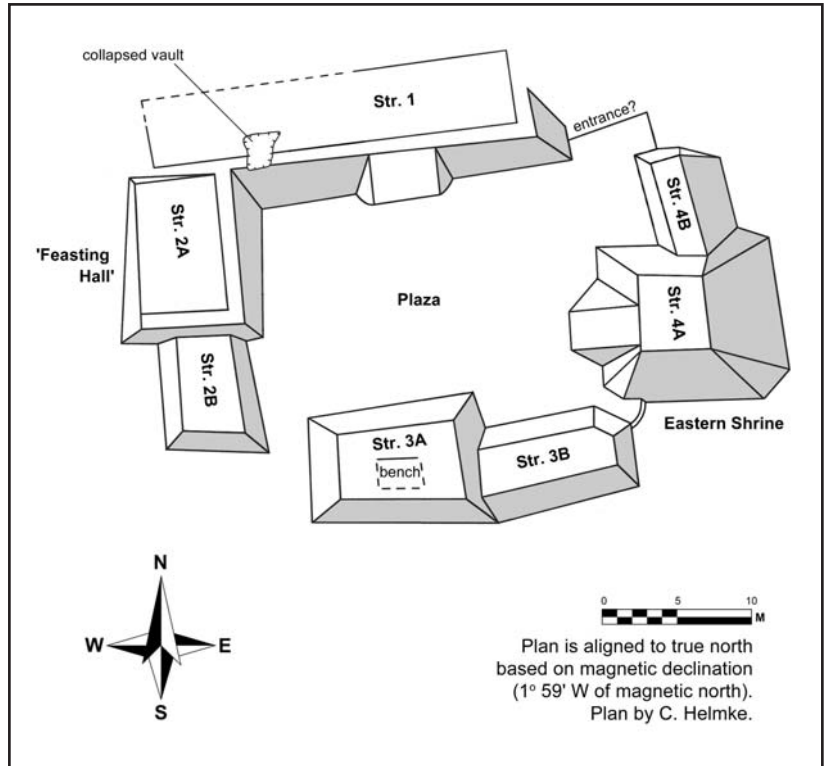
just over a hundred mounds per square kilometre in the valley. Of these, some were probably not used as houses, and others may not have been occupied at exactly the same time. However, by around 700-830 AD, it is likely that between 4500 and 7500 people lived just in the narrow stretch of valley between Cahal Uitz Na and Big Laugh (see map on page 11). Today, there are only a dozen or so families living in the area.

...and dying among the Maya

In ancient Maya cosmology, the dead went on to the Underworld. To them, caves featured prominently as entrances to this netherworld. Maya worshippers used to visit the caves, and their descendants still do today. Fortunately, the Roaring Creek valley has some of Belize's most stunning cave sites. The caves are found at the places where the softer limestone Lowlands and the harder granites of the Maya Mountains meet. Plenty of archaeology has come out of the caves, which provides privileged insights into the ritual lives of the Maya living in this area.

Of all the caves, the most famous is Actun Tunichil Muknal, or 'Stone Sepulchre Cave', which at 5km long is one of the most extensive caves in Belize, and is particularly renowned for its excellent archaeological preservation, great caving, and stunning natural formations. The archaeology from the caves in the area dates from as early as 600 BC to as late as 1250 AD, with a clear peak in its use during the Late Classic (c. 830-950 AD), at the time of the population boom. We think that the increasingly intensive use of the caves may be more than just a result of a larger local population. Rather, the intensive ritual activity could have been a reaction to social and political stresses as the land became overused and degraded, so that the people began to suffer shortages, and needed to turn more and more to the gods for help.

Indeed, the link between the caves, gods, and agriculture is clear from the archaeology that has come out of the caves. We find that the caves were mostly used for elaborate rituals where offerings were made to various manifestations of Chaak, an agricultural and rainmaking deity. Sometimes, in preparation for these rituals, the Maya extensively modified the natural cave environment by adding stairs, platforms, terraces, plaster floors, and small monolithic monuments. Ceramic vessels, animal remains, stone tools and a few items of personal regalia, such as carved shell ornaments and jade beads, are also associated with these rituals.



Above. Plan of the Pook's Hill plazuela group.

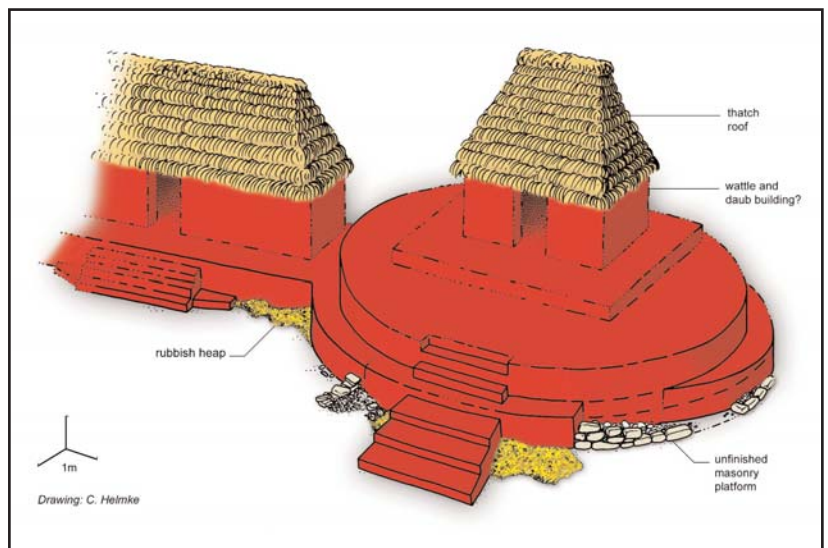
Below. Reconstruction drawing of the eastern shrine at Pook's Hill.

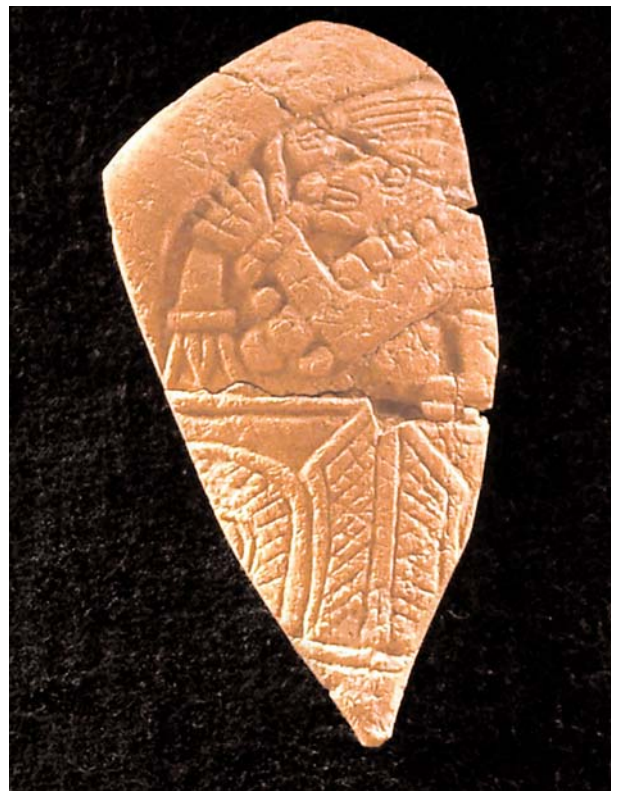
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Top left. A bird-shaped ceramic whistle ('ocarina') from near the eastern shrine at Pook's.

Top right. A carved section of a Hawksbill turtle shell found in a grave at Pook's.

Right. Megan Bassendale excavating one of the skeletons that was found under the stair of the feasting hall at Pook's.





To date we have also made the dramatic discovery that all the caves excavated in the Roaring Creek valley contain human remains. In many cases, these seem to have been sacrificial victims. Unfortunately, conclusive evidence for sacrifice is rare since we are generally unable to pick up clear physical trauma on the bones. This is especially so at Actun Tunichil Muknal, where natural cave processes have encased many of the skeletons in a layer of crystalline calcite. Despite this, some bones do have cut marks, which points to sacrifice. All artefacts and cultural features discovered in Actun Tunichil Muknal have been left as found. This produces something akin to an on-site museum.

Actun Tunichil Muknal has fast become one of the premier tourist attractions in the whole of Belize. With the area's high-profile has come the great opportunity to bring increased financial prosperity to the region today, not least by enfranchising local people as archaeologists and tour guides. Indeed, Belize is currently the focus of a major international development initiative tasked with enhancing the country's ability to attract tourists through its rich cultural

heritage, notably by opening up sites to the public. However, with the positives come inevitable problems, including increased looting and some destruction at the sites. In Roaring Creek, we have the added problems of modern agricultural technologies and cash-crops, though these no doubt enrich a limited number of local inhabitants, they are taking their toll on the archaeology.

The Roaring Creek settlement survey is gaining urgency as ever more land is turned over to citrus plantation or opened up by deeper mechanical ploughing, both of which rip out all but the larger Maya 'house-mounds'. Certainly, similar problems are faced all over the world, and while it will never be possible to preserve all such archaeology from agricultural development, the tragedy is that, in many cases, there has been no opportunity to record anything about them before they disappear. The Belizean Institute of Archaeology continues to work with local farmers and developers to establish a greater awareness of this problem. Our ongoing research is therefore shedding vital new light on this most intriguing of civilisations: the ancient Maya.

Further Details and Thanks

The Pook's *plazuela* is located in the middle of an ecotourism resort, Pook's Hill Lodge guesthouse, which offers visitors a mixture of birding, caving, hiking and archaeological activities. The Pook's Hill Lodge guesthouse makes an ideal base from which to explore the archaeology and natural attractions of central Belize. For more information and contact details, see www.pookshilllodge.com. Actun Tunichil Muknal can be visited from Pook's with Pacz Tours (pacz@btl.net) or with Mayawalk Tours (www.mayawalk.com) from San Ignacio. Additional information about the Belize Valley Archaeological Project can be found at www.bvar.org.

Particular thanks go to Ray and Vicki Snaddon (Pook's Hill Lodge), BVAR and WBRCP staff and students, especially the Pook's Hill team. The survey and excavations are under the overall direction of Jaime Awe of the Belizean Institute of Archaeology. Further support for this research has been provided by the Institute of Archaeology, UCL.

A Mystery Person Emerges from the Glyphs...

Among the discoveries made during investigations in the Roaring Creek valley are a series of pottery pieces decorated with beautiful textual signs, or 'glyphs'.

These glyphic texts adorned the rims of the so-called 'Moulded-carved' pots, some of which were found in the 'feasting hall' at Pook's Hill. These vessels are a hallmark of the last phase of the Late Classic (ca. 830-950 AD) across the entire Maya lowlands and were typically used in feasting activities, but are also found in ritual contexts and burials.

The pots have rich and detailed decorative panels showing both the real and the supernatural worlds. Many feature the rather gory image of captives taken in raids who are

being presented to the ruler. Others show the ritual conjuring, or resurrection, of deified ancestors. Intriguingly, the texts all refer to someone part of whose name was *Olom*, who appears to have been an important warlord of exalted but non-royal status. *Olom* is also mentioned on inscribed monuments from two sites in

neighbouring Guatemala (dating between AD 810 and 830). But while the ceramic texts seem to refer to *Olom* as a woman, the monuments are either mute on the subject or posthumously refer to *Olom* as a man. We are sure that the same person is being spoken about thanks to the remarkable list of titles that occur with

him/her. The gender ambiguity is curious, and we are yet to work out exactly what was going on. However, we think it could well reflect the social expectations of the time, in which the pre-eminent positions were viewed as the prerogative of males alone.

