



WHEN CLIMATE CHANGES

Megaliths, migrations, and medicines in Mursiland

ABOVE Two Mursi women, one wearing a lip plate, sit on a recently cleared platform in Ethiopia's Lower Omo Valley.

Over the past two summers **Timothy Clack** and **Marcus Brittain** have directed the first archaeological teams in the Lower Omo Valley, a remote part of south-western Ethiopia, to research long-term human responses to environmental change. What did they find there?

PHOTOS: Alberto Arzoz and the authors

Children clapped, giggled, and raced around. The feasting meat was ritually dispatched, butchered, and cooked on an open fire. Local honey wine flowed. Everyone, even

interloping archaeologists and anthropologists, danced around camp, bodies decorated with clays and ash. The evening's spontaneous celebrations, lasting well into the night, made an unforgettable end to a tough but rewarding season.



This is Ethiopia's Mursiland, occupying an area of the Lower Omo Valley approximately half the size of Wales, and home to a people known as the Mursi. Familiar from images of women wearing lip plates, and promoted to tourists as one of the last unspoilt tribes in Africa, the truth, as ever, is rather more complicated (see box on p.35). Surprisingly, to Westerners used to longstanding administrative boundaries, Mursiland is not a formal region. It is the area that the Mursi control, with the aid of the all-too-modern AK 47 assault rifle, and its fringes fluctuate accordingly. Woe betides any member of a neighbouring tribe who is caught on the wrong side of them. The area is also, according to received wisdom, archaeologically barren. We set out to prove otherwise.

From the outset the environment was challenging. Temperatures regularly soared to 45°C, water and food supplies were rationed, tyre punctures were commonplace, snakes slithered in the long grass, scorpions and camel spiders seemed to occupy every rock crevice, acacia thorns ripped clothing and flesh, and guides and GPS proved highly temperamental. The project was also a crash course in the interplay between archaeology and anthropology for, as we quickly realised, we were not going to get anywhere unless we won the trust of the Mursi. And they were wary – with good cause, given past experiences of outsider interest in their land.

Throughout the last decade, the Omo Valley tribes have been subjected to ever more external agencies transforming their territorial lands. These include hunting and national park concessions, bio-fuel and cotton extraction industries, hydro-electric power projects, as well as eco- and ethno-tourism. It took lengthy

BELOW The directors negotiating with local elders, a regular feature of our fieldwork.

negotiation, a few demonstrations of our benign intentions, and ample servings of indigenous trust to secure their blessing to survey a sizeable tract of Mursiland, near the international borders of Ethiopia, Kenya, and Sudan. So what were we looking for, and what did we find?

Food, floods, and flows

This was the fieldwork element of a project researching human responses to environmental change over the last 10,000 years. The climate and population of the region make it uniquely suited to our investigations. As a group, the Mursi were 'incorporated' into the Ethiopian state when Emperor Menelik II (1889-1913) established administrative control over the southwestern lowlands. Prior to this, cattle-herding communities in the region had been fairly fluid in nature. Today, there are between 8,000 and 10,000 Mursi people. Together they represent a considerable repository of knowledge, and our project started by interviewing current inhabitants about their environment, subsistence activities, and knowledge of the past. This confirmed that Mursi identity finds its origins in various large-scale migrations over the last two centuries, motivated mainly by environmental stresses, and expressed in terms of the search for a 'cool place'. Although primarily cattle-herders, the Mursi have learnt to vary their agricultural base to fit the fluctuating conditions. Rain-fed and flood-retreat cultivation, fishing, hunting and gathering all form part of this.





ABOVE A Mursi warrior looks on whilst one of the survey team takes measurements.

Rainfall is a major contributor to the success or failure of these strategies. Today it occurs in two concentrations: *Oiyoi* ('big rains') fall between March and April, and *Loru* ('small rains') fall between October and November. Annual rainfall is only between 300–800mm, meaning that the climate of Mursiland ranges from semi-arid to arid. This places a premium on water, and Mursiland's roughly oblong-shaped territory is due to it being bounded by rivers. Of these the River Omo is the major waterway, flowing over 1,000km from the Blue Nile and Sobat watersheds in the north to its outlet at Lake Turkana.

But the environment is not static. Instead, Mursiland offers regrettably little climatic certainty for its inhabitants. Such unpredictability makes rain-fed cultivation precarious and the watering of cattle difficult. This increases the Mursi dependency on flood-fed cultivation, which is reliant on highland rainfall to the north. This, too, is erratic, although less so than rainfall in Mursiland, as evidenced by the level of Lake Turkana, which has fluctuated by over 20m in the last century. A general trend of exposure is mirrored throughout the lowlands, with many of the River Omo's tributaries drying out over the last six millennia.

ABOVE A Mursi warrior bathes in the Omo River.

Platforms, people, and place

From the outset, the archaeology seemed to fit with an environment that is becoming increasingly arid. Material evidence was found that, according to local tradition, was the product of more settled occupation and a wetter landscape in the past. Central to this is the Mursi interpretation of a cluster of elaborate megalithic features on the lower slopes of the Arichukgirong (literally 'snout of the bull') Hills near the settlement of Dirikoro. The Mursi call these features *benna kulugto* ('stone circles') and believe they were ancient house floors, or platforms, built to lift dwellings above ground and provide a refuge from surface water. The Mursi also contend that they were made by previous inhabitants of the landscape, the fate of whom was uncertain. Whilst the location was originally reported by the anthropologist David Turton in 1973, the first detailed investigation was undertaken by our team. This proved to be our 'cool' place, not climatically but archaeologically. No other example of this fascinating architectural form has been reported from sub-Saharan Africa.

During our first encounter with the Mursi they denied that the platforms held any significance to contemporary life or general tribal identity. Despite this, the monuments lie within an area of the landscape considered sacred. The local name Dirikoro means 'black earth', a commodity found in pockets across the landscape. Such black earth is regarded as 'good for spiritual things' and the name itself is considered 'powerful'. Moreover, the black earth is frequently used in ceremonial activities, and can be found daubed on the bodies of warriors, or revered for its healing properties.

A large sacred tree, paramount to Mursi origin myths, is also located within the alignment of some of the platforms. It is said that when the Mursi arrived at Dirikoro, approximately 200 years ago, this was the only substantial tree in the landscape, and thus used as a gathering place for important public meetings, decision-making, and animal sacrifice. These practices continue at the tree today. The combination of elevated ground, alignment and concentration of platforms incorporating this topography, and the admixture of the sacred tree and the dark earth, hints towards a continuity



LIVING ON THE EDGE

The Mursi have complex relations with neighboring ethnic groups. In addition to the Mursi, who refer to themselves as *Mun*, there are seven further distinct ethnic groups in the Valley: Bodi; Chai; Dassanetch; Hamar; Kara; Nyangatom; and Suri. The linguistic diversity within such a small geographical area makes it globally unique. Together, these groups speak six different languages from two of the four major African language families: Afro-Asiatic (eg Omotic and Cushitic) and Nilo-Saharan (eg Surmic and Nilotc). Of all these groups, however, the Mursi – speaking an endangered Surmic dialect – are perhaps the best known to international audiences, although often misrepresented in popular accounts.

The main caricatures relate to a ‘painted and exotic’ people, composed of women ‘with the lip-plates’ and men ‘fighting with sticks’. While present, these facets of their culture are repeatedly distorted and over-emphasised. Indeed, this erroneous focus on bodily adornment and ceremonial behaviour is frequently used to sustain a view of the Mursi, in guidebooks and tourist literature, as an ‘untouched’ people, living in one of the last authentic ‘wildernesses’ of Africa. As our fieldwork has demonstrated, this perception is too simplistic. Archaeology is helping to uncover the long-term human occupation of the area, and it is hoped this will, in time, develop understandings as to the movements of people in the past, and explain today’s rich patchwork of languages and cultures.

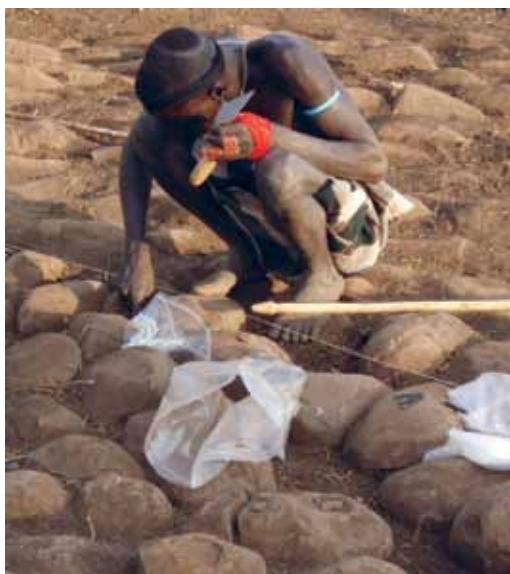
of inhabitation of the area with on-going, if changing, relations with the environment.

Survey revealed that the stone platforms were arranged in a horseshoe formation around the tip of the Arichukgirong Hills, with the largest cluster broadly arranged in a line approximately 400m long. Excavation of the *benna kulugto* makes it hard to validate the traditional Mursi interpretation of their purpose. After clearance, the 26 monuments were found to be composed of concentric rings of large volcanic stones, with each platform incorporating a gully, either open or filled with a neat line of stones, running north-westwards from the centre to the outside edge. The monuments vary considerably in size, ranging between 2.5m and 26.2m in diameter.

Some of the platforms were barely visible beneath the earth that, over time, had accumulated on top of them. Intriguingly, this soil encased the fragmentary remains of various animal species, particularly cows and goats. Initial analysis suggests these are mainly cattle hooves that had been crushed with considerable force and concentrated at the centre of the platforms alongside flakes of struck rhyolite stone. Excavation also confirmed that there are no cut features under the platforms, indicating that they are not tombs. 

BELOW Excavation underway on one of the Mursiland stone platforms.

BELOW LEFT A Mursi volunteer assists with the excavation of one of the stone platforms.





ABOVE The stone platform is carefully planned.

ABOVE RIGHT Fragments of burnt animal bone were found between the platform cobbles.

BELLOW Part of a ceramic plate found during excavation (bottom left) with examples of Mursi (top) and a Bodi (bottom right) plates still worn by women in the area today.

Work on the largest platform produced two particularly important artefacts. The first was a partial ceramic plate, or 'circular flange labret', probably one of the oldest examples of this distinctive ornament found in Africa. This is interesting as various groups in the Valley still wear plates of different sizes in their ears and mouths. The second was a pottery handle fragment with an impressed overlapping design. Again, this is not dissimilar to pots made by women on the Omo River today and may indicate a ceramic tradition of considerable antiquity.

Taken together, our findings produce three areas of difficulty for the traditional Mursi explanation of the platforms: the presence of animal remains; the arrangement of platforms is at odds with most East African settlement patterns; and some platforms are so large that dwellings are doubtful.



Ceremonies, clays, and climate

So what do we currently think is going on? It seems clear that these platforms are not burials and unlikely to be houses. Instead the platforms are best considered as surfaces rather than containers, and ceremonial surfaces at that. It is, then, probably not coincidental that sacrificial platforms are made by a neighbouring group: the Bodi. Prior to our fieldwork these platforms were entirely unknown.

The Bodi construct their so-called *koruch* platforms in compounds beneath sacred trees. Here, cows are sacrificed to appease malevolent or angry spirits. Each Bodi *komorut* ('priest') controls a platform and carries out the ritual upon request. The platform is taboo at all other times and is only cleared of vegetation growth before use. Sacrifices are performed a few metres away from the platform and involve the *komorut* brutally smashing a killing stone on the back of the unfortunate animal's head. Blood, intestines and other fluids are then spread over the





LEFT Section of pottery handle found under one of the platforms. This is of a very similar design to pots still made in the area today.

seem apparent. This could also explain the differing platform sizes. When a priest dies, his *koruch* is abandoned, raising the possibility that the circle sizes at Dirikoro reflect the longevity of those who sacrificed there. Alternatively, the frequency of such offerings typically increases during times of stress, potentially casting the larger platforms as monuments to the troubled times they were used in. Are these relics of the human cost of environmental fluctuation?

The Bodi sacrificial platforms are also used in healing ceremonies. This medicinal dimension echoes the use of Dirikoro clays by the



AFRO-ARABIAN 'MEGALITHIC CORRIDOR'

The sites comprising the so-called 'megalithic corridor' or '*stelae* zone' of southern Arabia and north-eastern Africa remain striking indications of past cultures, ethnicities, and religions. The corridor, composed of assorted stone *tumuli*, grave dolmens, rock-slab monuments, ritual platforms, and pillar sites, runs in a general south-westerly direction from Yemen in the north across the Red Sea into Eritrea, Djibouti, and Somaliland, and stretches down as far as northern Kenya, with many scores of sites known from Ethiopia and Sudan. Amongst them are the 32 carved *stelae* in the World Heritage Site at Tilya (pictured), the date of which remains uncertain.

The corridor, for the most part, follows the westerly arm of the African Great Rift Valley. Unfortunately, the Prehistoric archaeology of the Red Sea and the Horn of Africa remains in its infancy. The sites are poorly documented, with superficial and episodic reportage. The result has been that, in many cases, mere folklore or anecdotal stylistic affinities have been used to explain the origins of the features. Much more work is needed to evaluate the relationship between different sites in the corridor, dating from the Neolithic to Medieval periods. Various regional forces are likely to have shaped monumental traditions over the long term, including traditional African belief systems, Axumite colonisation, and the Arab penetration of the Horn of Africa.

platform cobbles. The gory ritual is concluded with the decapitated heads of sacrificial animals being wedged between branches of the sacred tree.

Many Bodi traditions also revere various clays that are considered highly potent and used extensively in medicine and ritual. Extracted from special places near rivers, these colourful clays are often mixed together and smeared on bodies, animals and rocks to assist fertility and alleviate sickness. The Bodi, therefore, are candidates for a descendant group linked to the Arichukgirong platform-makers. Only additional investigation can confirm this, but intriguingly the Bodi have a cultural memory of historical migrations away from the adjacent grasslands currently occupied by the Mursi.

Even the stones making up the sacrificial platform hold a special significance for the Bodi. When an offering is to take place, three stones, with the colour, size, and shape determined by spirit which is to be appeased, are added to the platform. As a consequence the Bodi platforms grow over time. This too may be mirrored by the Dirikoro megaliths, as we have identified multiple sources of stone used in their construction and, in some cases, various building phases



ABOVE A Bodi *koruch* (sacrificial platform) in the shade of its sacred tree.

BETWEEN Decomposing cattle heads in a Bodi sacred tree.

to be administered a mixture of clays, plants, and water. The cows have to process around the circle before the mixture is spat into their mouths.

On the strength of the evidence so far gathered by the team, the makers of the Dirikoro stone platforms were probably Pastoral Iron Age Cushites, an ethno-linguistic group today spread throughout much of Ethiopia

Mursi for healing and protection. What is more, the Mursi have their own circles of stone which are used in healing ceremonies, such as the *biolama* where entire herds are treated in an annual 'ritual of inoculation'. Here the herds are brought to the priest

and Sudan. To date, the archaeology and oral history offer tantalising glimpses of an otherwise undocumented heritage. Yet, plenty of questions await our return to the Valley. Why, for example, do the Mursi consider the landscape sacred? Were these platforms part of more elaborate constructions, and where were the people who constructed them living? Our survey has also discovered stone cairns and *stelae*, but these have yet to be dated. How do they fit into life in the Omo Valley? Far from being archaeologically barren, Mursiland still has many stories to share.

Cows, trowels, and AK47s

Our work at Dirikoro has given the *benna kulugto* platforms a new prominence in the eyes of the Mursi. Despite this sudden conspicuousness, the monuments themselves evoke motifs that seem to have a longstanding significance. When we ask locals at Dirikoro to draw the *benna kulugto* platforms they invariably show them as concentric circles. Intriguingly, such

circles also occur on Mursi bodily scarifications, cattle decoration, and artefacts. Indeed, once you start looking, these 'tags' litter the landscape. The Mursi refer to concentric circle imagery as *mirin*. The similarly shaped *kichuga* (horse shoe or concentric circles with a breach) signify a kill, and most often adorn the bodies of warriors and weaponry. It would be interesting to know where the geometry of the platforms fits into this scheme. But that is also a question for the future.

Working with the Mursi is both a privilege and challenge. The remoteness and severity of the environment requires us to engage actively with them, and recognise different notions of time and





heritage. Access is negotiated with people on the ground, as well as more conventional authorities in Addis Ababa. Thus, all project members have to communicate, listen, share, perform, and think about the impacts of their actions. Most Mursi men carry small arms, principally the AK47, and are occupied in hostile relations with various neighbouring tribal groups. Cattle-raiding, blood feuds, and territorial expansions can all trigger inter-tribal violence. Nevertheless, the Mursi honour-code ensures project members are treated as guests. As ambassadors from our own tribes, of course, it is only appropriate that we do not abuse our host, nor disrespect their engagement with the remains of the past.

The enduring utility of stone structures has prompted the Mursi to devise all sorts of uses for the *benna kulugto*. This is not static 'protected' heritage, but part of a living everyday landscape. The platforms are regularly trampled by cattle, or slept on in the shade of a tree. Sometimes, the stones are used for grinding colourful minerals into body paint. We have also seen them pressed into service as waymarkers for pathways, seats, and tethering points for cattle and, on one occasion, stones were even lifted

and repositioned to build a temporary fire place. Despite this, the platforms have taken on greater significance for the Mursi because they have become a point of negotiation with outsiders. This is nurturing a sense of custodianship of the past, although 'strings' are attached, insomuch as the locals have, understandably, made requests on us.

Through professional consultation the project supplies medicines for livestock, and, at the explicit request of the local elders, we have initiated a long-term scheme to provide access to water through a bore well. A small charity, the Elma River Valley Community Project has been established with the aim of mitigating some of the effects of the daily hardships. This has taken the team out of the relative comfort of academia and into a world of regional development agencies. Despite making things harder logistically, the project is immeasurably wiser for these negotiations and dialogues. Working so closely with the Mursi also adds a certain poignancy to our project as the new Gibe III dam is scheduled for completion in 2013; this hydroelectric scheme will dam the Omo River and seriously disrupt agricultural regimes, changing the traditional ways of life forever. **WA**

ABOVE Drawings of the stone platforms by various Mursi artists. Concentric 'tags' can be found throughout the local area.

SOURCE

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Further details are available at: www.mursi-archaeology.co.uk
The charity website is: www.elmatrust.org.uk