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Wilshaw, A, Muwonge, H, Rivera, F and Mirazon Lahr, M

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KENYA

Aliel: A mid-Holocene stone platform with cairn and single pillar in West Turkana, Kenya

Alex Wilshaw
Herman Muwonge
Frances Rivera
Marta Mirazón Lahr

Introduction

In August 2016, the In-Africa Project, which focuses on the palaeo-environment and human occupation of West Turkana during the late Quaternary (<http://in-africa.org/>), identified a stone platform and cairn whilst surveying an area between the Napudet Mountains and the Kerio River in Southwest Turkana. Different from other simple cairns in the area, this structure, locally known as Aliel, also exhibits: a) a single standing stone within the construction of the cairn; and b) a significant assemblage of pottery sherds (including Nderit ware) on the surface of the platform. Cairns, circles, platforms and stone structures are well-known features of the prehistory of the Turkana Basin (Robbins, 2006, Wright et al., 2016), including complex megalithic architecture in the form of ‘Pillar sites’ characterised by the presence of multiple stone pillars placed vertically on the ground within a constructed platform, such as Lothagam, Jarigole and Kalokol (Hildebrand *et al.* 2011, Grillo & Hildebrand 2013, Nelson, 1995; Figure 1). While stone cairns and structures continued to be built until recently throughout eastern Africa (Davies 2013), ‘Pillar sites’, often associated with ceramics decorated with ‘Nderit’ motifs, cluster chronologically between ~5,300 – 4,000 years BP (Grillo & Hildebrand 2013), overlapping chronologically with the first evidence for domestic cattle in Kenya (Marshall et al., 1984). Thus, the Turkana Basin is thought to have acted as the corridor for early pastoralist communities, economies and traditions expanding into East Africa during the mid-Holocene. As such, the area holds crucial information for understanding changes in population history and

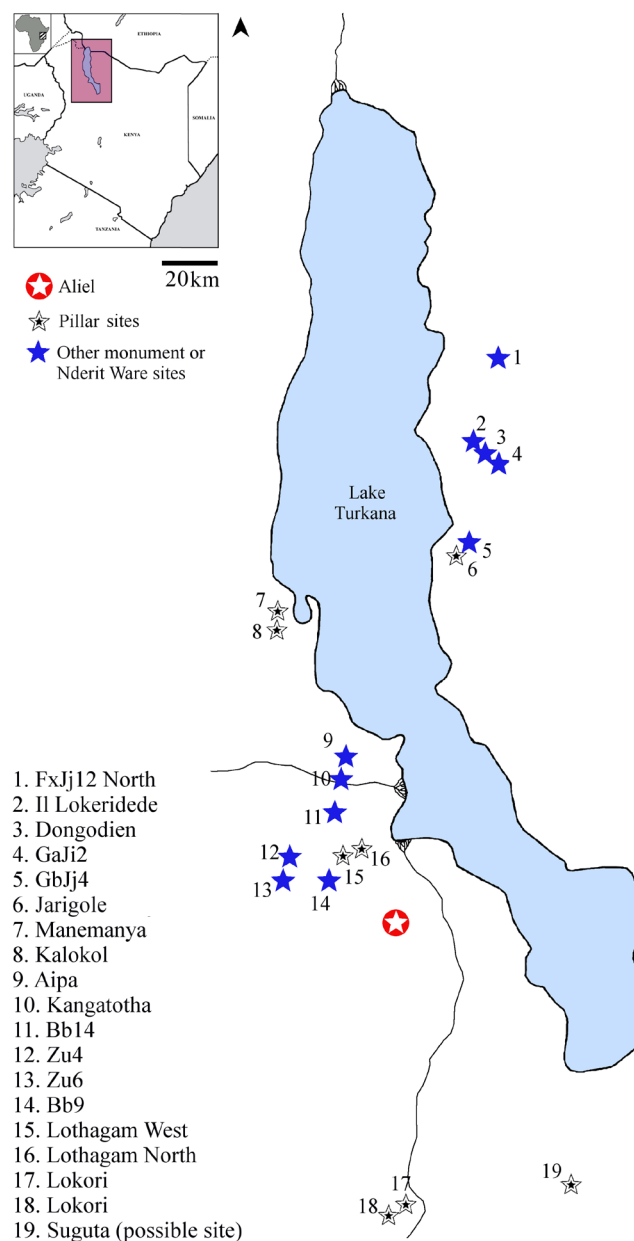


Figure 1: Map showing the location of Aliel in context with pillar/platform sites and pastoral sites in the area. After Hildebrand et al. (2011) and Hildebrand and Grillo (2012).

settlement dynamics. The site of Aliel is well placed both chronologically and geographically to provide further insights into this period of prehistory.

Spatial and Temporal Situation of Aliel

Aliel is located at GPS co-ordinates N2° 47.469' E36° 06.798', with an elevation of c. 432 metres above sea level, and has been indirectly radiocarbon dated to 4490 +/- 30 14C age BP (Cal BP 5300-5035 and Cal BP



Figure 2: a. View of the southeastern face of the stone platform with large central cairn and five smaller cairns (blue triangles) – Lothagam Ridge, the site of well-known Pillar sites, can be seen on the horizon (black triangle); c. the large central cairn – the standing stone or pillar can be seen on the right of the cairn (red triangle); d. a frontal view of standing stone at the head of the cairn; e. the standing stone.

5005-4980, Beta-447866) using bulk organics from a single sherd of Nderit ware found on the surface of the platform. Chronologically, this places Aliel in the earliest phase of construction of the oldest ‘Pillar sites’ of Turkana, Lothagam North and Jarigole, currently dated to 5033-4870 Cal BP and 5270-4857/5212-4853 Cal BP respectively (Grillo & Hildebrand 2013). It also supports the view held amongst the local Turkana population, that the monument is not recent. Widespread oral traditions describe Aliel as the resting place of an ancient and powerful *mganga*-- witch doctor-- that lived in the area prior to the arrival of the Turkana people.

The platform is located on the western edge of a ridge that runs SE-NW, on a small plateau (c. 100m width) of sands and fine gravels, that slopes slightly towards the north and is eroding in wash gulleys down the ridge to the south west. The perimeter of the plateau is de-

fined by small dunes formed by windblown sands caught in the low scrub acacia and short grasses (Figure 2). The location commands horizon views in most directions and has a direct line of sight to the Lothagam Mountain (see Figure 2a and 2b).

Today, the site lies approximately 40 km to the west of Lake Turkana. However, current reconstructions of fluctuations in the level of the lake suggest that, after the period of high lake-levels during the African Humid Period when the site of Aliel would have been submersed (Garcin et al., 2012, Lahr et al., 2016), regression to present-day lake-levels took place after 5,000 years BP, being completed by 4,500 years BP (Bloszies et al., 2015, Wright et al., 2015). Thus, although it is possible that Aliel was still near the lake shore at the time it was built, its date corresponds to the initial fall in lake level and onset of the dry period that coincided with the earliest

spread of pastoralism in the area (Garcin *et al.*, 2012).

Description of the monument at Aliel

Aliel comprises a series of monumental features, including a stone platform, large central cairn with a standing stone, and a series of eight smaller cairns (illustrated in photographic views in Figure 2 and using a digital elevation model in Figure 3a-b). The slightly elliptical stone platform is c.30 metres in diameter and has been formed by the deliberate placement of similarly sized (c. 5 cm diameter) natural locally occurring pebbles, as well as dark grey chunks of older fossiliferous conglomerates that may have been brought from nearby ridges. This corresponds closely to the description of construction methods given by Grillo and Hildebrand (2013) for other monumental sites in West Turkana.

The platform itself slopes downwards from the southern to the northern edge, where it eventually peters out to ground level. It further exhibits a slight depression at the centre, making it almost doughnut-like in shape. As the depression has captured much windblown-sand, without excavation it is not possible to confirm whether the small stones that form the platform continue into the centre or simply form a ring. This raised edge appears as an apron around a large, possibly double peaked, simple cairn offset to the west/northwest of the structure's perimeter.

The large cairn is approximately 3.5 metres long and 2 metres wide, with low sloping sides and peaks to both the western and the eastern ends, and with a standing stone. The two peaks could suggest two coeval cairns, although it appears to be a single large cairn constructed deliberately with this morphology. There is nothing to suggest that material from the central portion of the cairn has rolled or eroded to create this saddled effect, unless the material has been removed from the vicinity. At the western head of the cairn, there is a rounded standing stone of grey porous basalt embedded in the structure. The stone is 40cm high, measured from the surface of the cairn; however, its overall dimensions and depth of the feature remain unknown. At other sites, including Jarigole (Nelson, 1995) and Kalakol (Lynch, 1978), petroglyphs have been observed on standing stones and pillars, but this was not the case at Aliel. However, there do appear to be several scratches or lines that may be natural and a white concretion staining the stone, which may warrant

further investigation.

The cairn is constructed using locally sourced basalts, sandstones and conglomerates from ridge formations in proximity to the site and fragments of stromatolites and clumps of oyster shells sourced from palaeobeaches in the area. Most of the visible rocks range from 5 to 20 cm in diameter. However, occasional larger rocks, measuring up to 40 cm, are also apparent. Although some rocks are rounded and smoothed, others are coarse and non-uniform. There seems to be little preference exhibited in the selection of rocks used to build the cairn, except for the standing stone that uses non-local material, but whose source currently is still unknown.

In addition to the main cairn, there are eight more simple cairns that are either part of the platform structure or adjacent to it. Two small cairns (one measuring c. 1.5 m diameter and the second a double peaked cairn of almost 2 meters in length) skirt the eastern platform edge. Another two tiny cairns of less than 50 cm in diameter sit on the surface of the platform itself, just offset inside the northeastern boundary. Three other cairns are positioned 10 m to the north, 2 m to the northwest and c. 10 m to the southwest of the platform edge. Additionally, two structures, first interpreted as small cairns and located c. 15m to the west of the platform, were identified by locals as being of recent origin and resulting from the activity of rock collectors working in the area. The materials and methods used to construct all the smaller cairns seem to be similar to those of the main cairn. However, it is worth noting that although identical in nature, it is not possible to know whether the cairns are contemporary and the smaller cairns may have been added after the main structure was built. The primary cairn appears to be reasonably integral to the platform structure, the off-centre nature of its location could indicate a separation of the two features. Other megalithic structures in Turkana also show evidence of different phases of construction (Hildebrand and Grillo 2012, Grillo and Hildebrand 2013), and only excavation and further dating will allow us to fully understand the relationship between the different structures that form Aliel.

In this area, cairns are traditionally linked to mortuary practices in early pastoralist sites, as well as in later sites (Grillo and Hildebrand, 2013, Soper and Lynch, 1977). There are no visible human remains eroding from the main cairn, possibly due to its size and the presence of obscuring windblown sands. However, small fragments

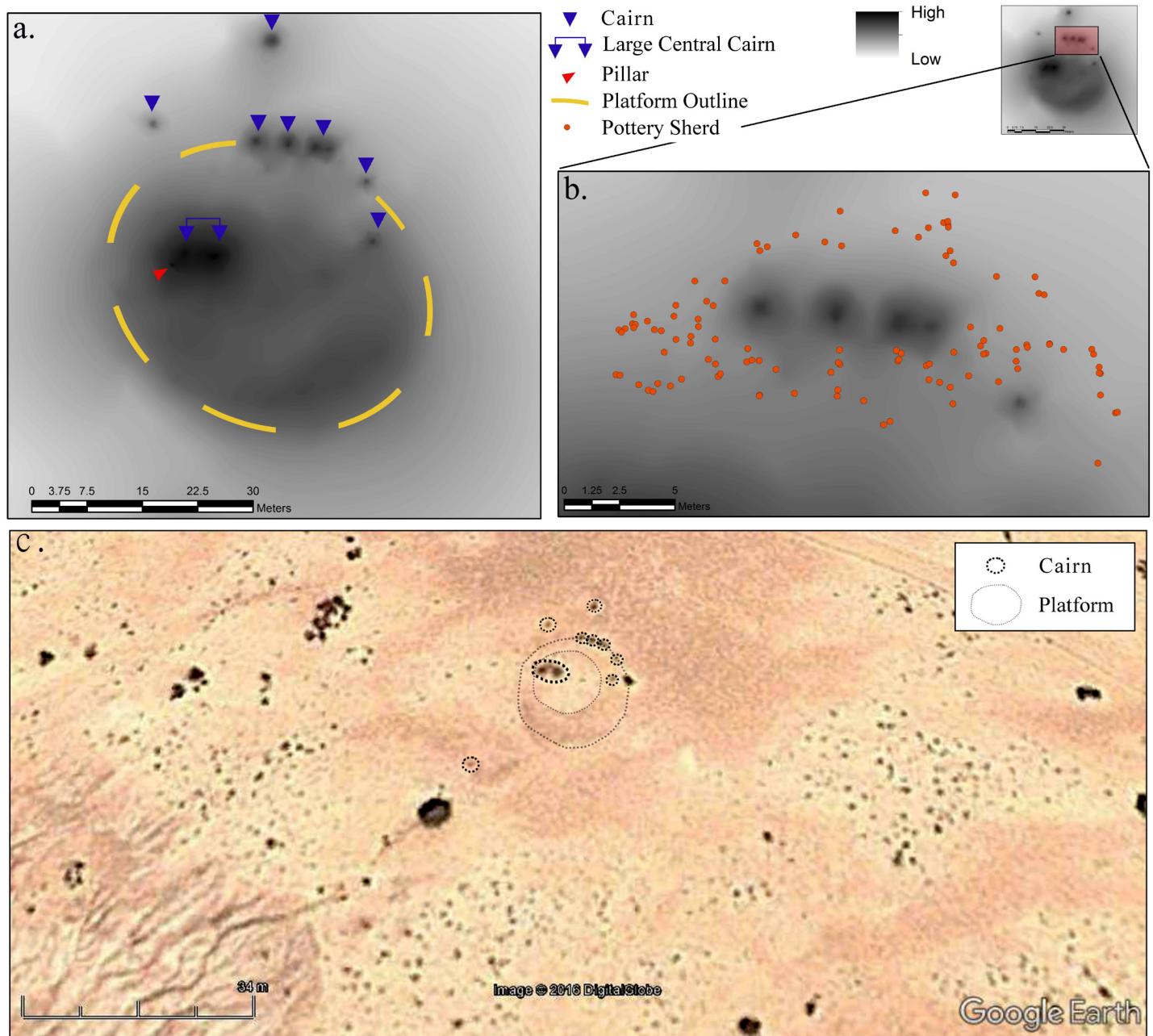


Figure 3: DEM overview of Aliel. a, the platform, cairns and surround, with features indicated by symbols; b, a snapshot of the density and distribution of pottery sherds on the platform; c, aerial view of Aliel with the main features marked.

of human skeletal remains were observed in close association with the three cairns on the northern platform edge, as well as scattered on the eastern edge of the site, where a now dispersed cairn appears to have existed. Thus suggesting that at least the small cairns mark human burials, and the limited volume and erosional distance of the bones, and minimal presence of cranial fragments, could indicate the presence of one or more reasonably intact human skeletons that may yield insights into the biology of

early pastoralist populations. Lynch (1978) and Robbins (2006) suggested that only males are buried in graves marked by upright stones and the excavation of Aliel would give a rare opportunity to test this hypothesis.

Overall, the date, architectural appearance and methods of construction of Aliel seem to be consistent with other early pastoralist sites from west Turkana (Davies, 2013, Hildebrand and Grillo, 2012, Hildebrand et



Figure 4: Examples of the range of pottery decoration types on the stone platform of Aliel. a Nderit ware rim sherds everted; b-d Nderit ware body sherds showing evidence of different stylus types; e Kansyore-like ware plain rim sherd; f-g Kansyore-like ware body sherds; h-j rim sherds of grooved decoration (i-j with flaring lip); k-l grooved decoration body sherds; m ripple decoration body sherd; n-o body sherds with zoned groove decoration; p grooved chevron decoration; q non-uniform grooved decoration; r-u multi-pattern grooved and stamped body sherds. Scale is 1cm.

TYPE		Body Sherd		Rim Sherd		Total		Of which have internal incisions	
		Count	%	Count	%	Count	%	Count	% of Type
Potential Nderit Ware	Plain	20	18.0%	1	0.9%	21	18.9%	1	4.8%
	Classic Nderit	38	34.2%	9	8.1%	47	42.3%	14	29.8%
	Grooved	31	27.9%	1	0.9%	32	28.8%	0	0.0%
	Rippled	2	1.8%	0	0.0%	2	1.8%	0	0.0%
	Kansyore-like	9	8.1%	0	0.0%	9	8.1%	2	22.2%
	Total	100	90.0%	11	10.0%	111	100.0%	17	15.3%

Table 1. Showing the designation of attributes to pottery sherds

al., 2011, Robbins, 2006), a conclusion also is supported by the pastoralist-associated material culture, mainly pottery, found at the site.

The Pottery of Aliel

The stone platform of Aliel is strewn with potsherds, that, apart from a single round ostrich eggshell bead and a single quartz flake, were the only artefacts visible on the surface of the site. The sherds are found across the stone platform, but their occurrence is denser around the three small cairns to the north, and sparser to the south of the platform. The sherds appear to be sitting on top of the platform, where the pots may have broken, and dispersed from, rather than to be eroding from the cairns. The distribution of the ceramic fragments was recorded across a section of the densest area of the site (Figure 3b). Although the distribution of different types of potsherds may be affected by both where the vessels broke and by the subsequent dispersion of fragments, overall the assemblage appeared evenly spread, without apparent concentrations of different manufacture techniques, decorative techniques or motifs in specific areas. The volume of body and rim sherds suggests that it should be possible to refit some vessels and have an idea of shape and types of vessels used.

A sample of 111 random sherds was recorded, allowing for a broad description and classification of pottery decoration (Figure 4). Most sherds were not large enough to allow identification of vessel types, but it was

possible to carry out a preliminary classification using decorative techniques and patterns (Table 1). The majority of sherds are either classic Nderit Ware, or one of the various patterns assigned to the greatly variable ceramic tradition of Nderit Ware (Bower and Nelson, 1978, Nelson, 1995). However, potsherds impressed similarly to Kansyore ware were also observed at the site and appear to originate from more than one vessel. Kansyore wares are normally associated with Later Stone Age fisher-forager communities that occupied an area from the vicinity of Lake Victoria to northern Tanzania during an extended period (c. 8,000-2,000 years BP; Lane et al., 2007, Prendergast et al., 2014). It is, therefore, interesting that ceramics with similar decorative patterns are found so far north at an apparently early pastoralist monument site in the Turkana Basin. Dale and Ashley (2010) and Prendergast et al. (2014) have suggested that communities using Kansyore artefacts practiced complex fisher-forager subsistence strategies that favoured moderately late-returns, predisposing them to the adoption of herding. In part, this may be the explanation for the presence of a Kansyore-like ceramic tradition in West Turkana at the time.

Discussion

Aliel is an important addition to our understanding of early pastoralists in the Turkana Basin. Not only does it add to our chronological understanding of the spread of pastoralists in the area, but it offers an insight into a different form of megalithic architecture that is neither a 'Pillar site', as defined by Grillo and Hildebrand

(2013), nor one of the common types of cairn found in East Africa (Davies 2013). Aliel appears to be a mortuary structure, possibly containing several interments, and could have been used multiple times, as it is suggested by the extensive and diverse pottery assemblage.

The date for Aliel corresponds to Group 1 ‘Pillar Site’ in the chronological framework developed by Grillo and Hildebrand (2013), hinting at a possible relationship with the earliest phase of construction at the Lothagam North ‘Pillar site’, which also falls within this group. Aliel expands the data set of stone monuments for this period, and supports the claim that such sites were constructed within very limited time frames in prehistory. Furthermore, Aliel expands the hypothesis that similar monuments may exist in West Turkana and that the construction of smaller monumental features could be wider-spread than realised in the areas surrounding larger known sites such as Lothagam and Kalakol. The structure of the site also raises questions about what constitutes a pillar or a ‘Pillar site’, the range of types and numbers of standing stones used as markers of pastoralist mortuary structures. Currently, it is unclear how the presence of a single standing stone at Aliel, morphologically different from the basaltic columns at other sites, relates to the cultural landscape of ‘Pillar sites’, or the settlement dynamics of the communities who built them. Aliel lies 17 km Southeast of Lothagam North ‘Pillar site’, and is likely to be chronologically and spatially part of the same landscape. Thus, besides its inherent importance as a source of information on pastoralist mortuary behaviour, Aliel provides insights on the early pastoralist complex use of the landscape. This is particularly important at this stage of research into the earliest pastoralists of the Turkana Basin, as it is still unclear whether such sites are spatial and temporally limited and are specialised and clustered around centres such as Jarigole, Lothagam and Kalakol, or whether we are dealing with a continuous landscape of pastoralist traditions from Kalakol to sites as far south as the Suguta.

Finally, the diverse ceramic assemblage from Aliel has the potential to provide insights into the role of monuments after their construction and initial use. The site exhibits an array of different pottery decorative techniques and motifs that can either reflect a diverse and rich cultural tradition, or perhaps, and more likely, multiple events of use of the site. Some of the types of ceramic

decoration are typical of early pastoralist traditions in the Turkana Basin. However, others are known to occur at fisher-forager sites around other East African lakes, and to have persisted during the transition between foraging and food production periods (Bower and Nelson, 1978, Dale and Ashley, 2010, Lane *et al.* 2007). Their presence at Aliel may be indicative of a process of assimilation of traditions and societies at the time of first introduction of a pastoralist economy.

The variation in pottery, when combined with the presence of pots on the surface of the platform near cairns with eroding human remains, suggests that these pots may represent continued visits and homage to the dead by the living. A targeted study of the pottery, with extensive refitting of pots and a programme of radiocarbon dating could reveal information about the pattern and temporal extent of return to the site. Similarly, a systematic residue analysis could identify what the pots may have contained, giving insight into the earliest practices or belief systems of early pastoralists.

In conclusion, Aliel is an important contribution to our spatial and temporal understanding of early pastoralist sites in Turkana. The extraordinary range of stone monuments in the basin was first documented in the 1970s and 1980s, when cairns, circles and the ‘Pillar sites’ of Turkana were first studied by Barthelme (1985), Lynch (1978), Nelson (1995), Robbins (1972, 2006), Soper (1982; Soper and Lynch, 1977). Recent research by Hildebrand, Grillo, Wright and colleagues (Grillo and Hildebrand, 2013, Hildebrand *et al.*, 2011, Hildebrand and Grillo, 2012, Wright *et al.*, 2015, 2016) has added to the understanding of megalithic sites in the area, highlighting the dynamic and complex use of the Turkana landscape by pastoralist societies since the mid-Holocene. The mortuary monument of Aliel extends this cultural landscape by providing new insights into the spatial and temporal distribution of early pastoralist societies in Turkana. The detailed excavation of the site in the future should offer a fuller understanding of the architecture of the site, its phases of construction and/or use, as well as of the people who were buried in the monument.

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