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A NEW GEOMETRIC PAINTED SITE FROM ZAMBIA*

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ABSTRACT

In July 1994 a painted cliff face was discovered at Lubungu Pontoon in the North-Western Province of Zambia (Fig. 1a). The circular and linear painted markings found at Lubungu Pontoon are attributed to a widespread tradition of geometric rock art made by foragers in the miombo (Brachystegia) woodlands of south-central Africa. The Lubungu Pontoon paintings are the first to be reported from the Kasempa District of Zambia and extend the known distribution of this art style.

THE SITE

The Lubungu Pontoon crosses the Kafue River on the road to Kasempa from Mumbwa and marks the boundary between the Central and North-Western Provinces (Fig. 1b). Dominating the local landscape is a linear range of unnamed sandstone hills that are breached by the confluence of the Kafue and its tributary the Lunga River (Fig. 1c). At this point, the hills reach a maximum height of 1189 m, and it was here on a south-easterly facing cliff (26.26.30E; 14.34.28S) that the paintings were discovered.

The paintings are approached by a steep climb to where the slope breaks to form a vertical cliff face. The cliff rises 4 m from a boulder-strewn floor before breaking into an uneven and heavily eroded crest. The face extends horizontally for 9 m and is framed between two irregular projections (Fig. 2) which create a natural gallery with a commanding view. The ground surface abutting the base of the cliff forms a level platform only 2-3 m wide and then drops away steeply. The paintings are found on the smoothest surfaces of the rock face but erosion by exfoliation has created gaps in the distribution of the art making it difficult to estimate its original extent. The main body of paintings covers an area 4.5 m wide by 2.5 m high in the centre of the outcrop (Fig. 3) with isolated patches of images occurring to either side.

A white calcium carbonate film of varying thickness covers the images and both protects and obscures them (Fig. 4). The source of the film appears to be a seasonal cascade of water down the cliff face from channels above. The carbonate layer indicates that the paintings are not recent, but the rate of accumulation is unknown and the age of the underlying art could range from hundreds to thousands of years. The exfoliated surfaces of the rock face are largely free of a film covering,

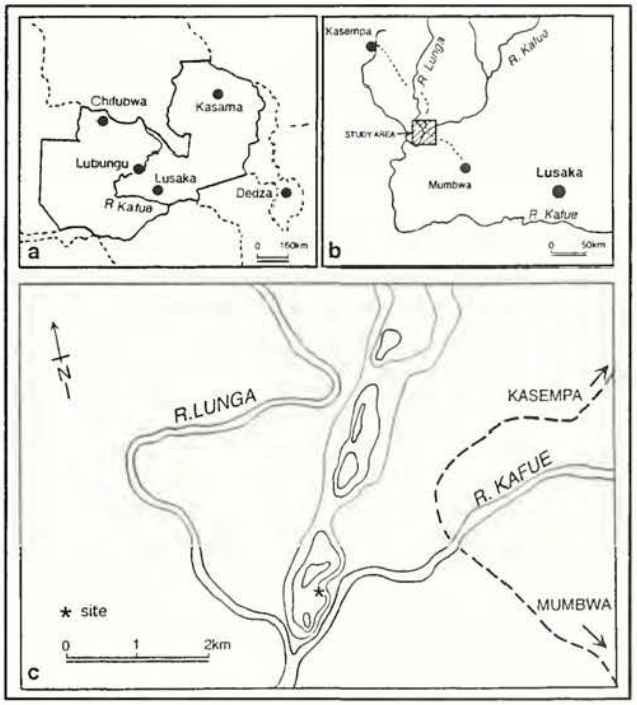

Fig. 1a. Location of Lubungu Pontoon in relation to rock art sites in Zambia and Malawi mentioned in the text; 1b: the study area at the confluence of the Lunga and Kafue Rivers; 1c: Lubungu Pontoon is situated at the southern end of a range of hills and overlooks the Kafue River.

whereas many of the images are almost invisible beneath a white carbonate crust. This basic observation supports the inference that at the very least the paintings are not recent. Direct AMS radiocarbon dating of the carbonate film would provide a minimum age for the paintings; a date which could then be compared to dates on any painted fragments which might be recovered from

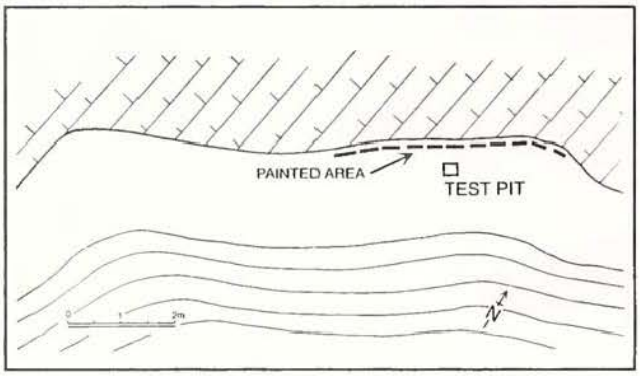

Fig. 2. The location of the paintings in relation to the cliff face and the steeply sloping ground surface. A small test pit was excavated near the base of the paintings.

excavations at the foot of the panel. These objectives will form part of a programme of survey and excavation in the Lubungu hills planned for 1999-2000.

THE IMAGES

A comprehensive statistical analysis of the main panel cannot be made, owing in part to the extent of the carbonate film. Of the clearly visible images, the most common forms are vertical finger width strokes, in groups of four or five, of varying lengths from 50-100 mm, some crossing at 90^0 to form grids. Less common, but distinctive elements are inverted U shapes bisected by a single line forming a trident (Figs 5 & 6a, b). These range in size from 160-60 mm and are painted in finger width lines. More unusual are two lowercase letter b shapes, also in finger width lines (Figs 4 & 6c). No iconic images of animals or humans were discovered. The carbonate film not only obscures much of the imagery but also alters the apparent colour of the pigment. All the paintings beneath the film appear to be bluish grey but in reality are reddish brown. This masking effect of the film is evident where an image is only partially covered then the contrast between grey tint and brown pigment becomes clear (Fig. 4). Black and white images are absent, but the white film may be transforming black pigment into bluish grey and may make white pigment indistinguishable from the calcium carbonate covering. These provisos aside, the Lubungu images can be summarised as a combination of geometric and linear forms painted in red finger width lines.

COMPARISONS

The Lubungu paintings are part of a widespread central African tradition of 'schematic' art (Clark 1959; Willcox 1984) found north of the Zambesi across the former range of miombo woodland, and which is generally attributed to foragers (Clark 1959; Smith 1995) or to early farmers (Phillipson 1972). In Zambia, red geometric and linear images emphasising circles and half circles are found in the Eastern Province (Phillipson 1976) and in the Kasama District to the north (Smith

Fig. 3. Photograph showing the height of the cliff face, the extensive carbonate film covering and the location of the 'b' shaped image illustrated in Figs 4 & 6c.

1995, 1997). The region nearest to Lubungu, the Central Province, is distinguished by more linear imagery with the inclusion of white pigment as filler between the lines (Smith 1995). The Lubungu panel incorporates the linear features of the Central Province with a variation of the half circle imagery, which is widespread further east in Zambia and Malawi. The closest stylistic links are found in the North-Western Province of Zambia at Chifubwa Stream Shelter (Fig. 1a) near Solwezi on the Congo (formerly Zaire) border (Clark 1958).

The Chifubwa images are engravings, though some are painted red, which resemble closely the inverted and bisected U shapes of Lubungu. The Chifubwa engravings are covered by Late Stone Age deposits (Clark 1958) which Miller (1969) classifies as Nachikufan I based on its high frequencies of backed bladelets and segments. The main occupation of the shelter is associated with the lowermost red sand deposits, which also contain abundant red pigment. The engravings begin just 450 mm (18 inches) above this deposit and an engraved boulder was rooted in the red sand. A single radiocarbon date based on a composite sample of charcoal from the overlying orange sand stratum provides a minimum age of 6310 ± 250 BP (Miller 1969) for the main occupation and presumably for the engravings. (The source of the

Fig. 4. Photograph of two painted forms, a b and a trident-like image (see Figs 6b, c).

Fig. 5. Photograph of elongated inverted and bisected U shaped painting.

charcoal and its relevance to the paintings has been questioned because of the possibility that it was introduced into the shelter by flooding from the nearby stream (Smith pers. comm.) Given the close similarities in style, the Lubungu Pontoon paintings could conceivably be older than 6000 years, but a chronology based on a single indirect date, ambiguous stratigraphic associations and assumptions about stylistic uniformity is inherently risky. The direct dating of the Lubungu carbonate film would test this linkage of paintings with engravings based on style.

A relative chronology for the art of central Africa was constructed by Clark (1959) with regional refinements made by Phillipson (1976) and more recently a synthesis for south central Africa has been proposed by Smith (1995) based on research in the Kasama District of northern Zambia and the Dedza District of Malawi (Fig. 1a). Smith's scheme combines superimpositioning, archaeological data and oral traditions to discern five groupings or temporal phases of paintings, each defined by a common set of images and use of colour. Phases 3-5 are the most recent with a mix of animal and human

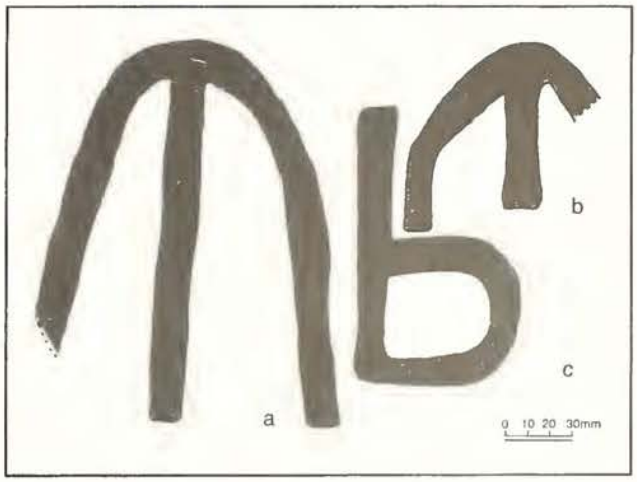

Fig. 6. The most distinctive images at Lubungu Pontoon include inverted and bisected half circles or ovates (a, b) and a b shape (c), all painted in red.

images, extensive use of black or white pigments and close links with contemporary masked rituals linked to rites of passage. These images overlay red geometric and linear finger painted images (Phase 2) and red animal and human images painted by brush (Phase 1) (Smith 1995). Phase 1 sites are few in number, except in the Kasama District, and are rarely found with the imagery of Phase 2.

These two earliest traditions or phases are attributed to forager groups (Smith 1995, 1997) partly on the consistency of superimpositioning of white imagery (=agriculturists) over the red phases and partly on ethnohistory. This pattern occurs in other parts of central and southern Africa where the 'Late White' (Willcox 1984) tradition is associated with Bantu-speaking peoples, whereas oral tradition and historical accounts attribute red geometric and zoomorphic paintings to hunter-gatherers (Prins & Hall 1994:173-4). Smith (1995, 1997) draws parallels between the geometric patterns of modern Pygmy art with the geometric and linear imagery of Phase 2 pictographs. The bisected half circles and b shaped forms at Lubungu have direct counterparts in some Mbuti images painted by women on bodies and bark cloth (Meurant & Thompson 1995: plates X-XIV). This is not to say that all central African geometric art was the work of Pygmies or painted in the same social contexts, only that they provide the nearest modern analogues. The Bushman art of southern Africa with its abundant use of human and animal imagery (Lewis-Williams 1983) differs markedly from Phase 2 geometric art as does the Sandawe rock art of central Tanzania which more closely resembles that of southern Africa (Ten Raa 1971; Lewis-Williams 1987).

At Lubungu Pontoon, the link with foragers is strengthened by the absence of pottery on the adjacent land surface and by the presence of stone artefacts just beneath the topsoil. A small test pit measuring 400 x 400 mm was excavated to a depth of 200 mm into the strip of level ground near the painted panel (Fig. 2). A stick of

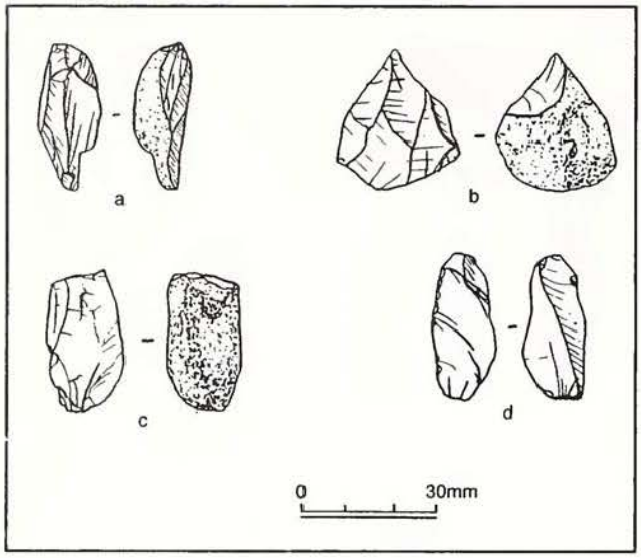

Fig. 7. Stone artefacts found in the test pit include bipolar core fragments (a & c), a borer (b) and a bladelet (d). All are quartz except (d) which is quartzite.

charcoal and six stone artefacts were recovered including two quartz bipolar core fragments (Fig. 7a, c), a quartzite bladelet (Fig. 7d), a quartz borer (Fig. 7b) and two small quartz flakes (< 20mm). These artefacts show that Later Stone Age foragers used the site, but in what capacity? The narrow platform makes Lubungu an unlikely base camp. A much more extensive excavation is needed to characterise the human use of the site.

SUMMARY

The distribution of geometric art across the miombo belt of south central Africa from Angola (Gutierrez 1996) to southern Tanzania (Collinson 1970) and the distinctive content of the art suggests a woodland culture area may have existed during the Holocene which incorporated common beliefs, symbols and material culture. Today, only the art and archaeology survive. These links are currently being investigated (Barham & Smith in prep.) but in the interim Lubungu Pontoon extends the known range of painted sites westward and draws attention to outstanding issues of chronology and interpretation. Direct dates do not exist for the art of south central Africa, and all current chronologies are by necessity relative; based on superimposition, stylistic comparisons and a few indirect associations with dated archaeological assemblages. The radiometric dating of the Lubungu panel would provide a minimum age for the art and be a small step toward building a local chronology, but one of potentially wider application.

The fact that there is no extant forager culture in the region makes it difficult to draw ethnographic analogies with areas where very different artistic traditions survive into the historic present. The art of southern and eastern Africa, with its emphasis on human and animal imagery, has little in common with the geometric art found north of the Zambesi. This lack of stylistic correspondence may signify an ideological break with the pan-Bushman system of beliefs, as expressed through communal rituals, and with images derived from altered states of consciousness (Lewis-Williams & Dowson 1989). Stylistic parallels do exist with the art of extant foragers in the forests of central Africa, but the relevance of this living tradition to the prehistoric art of south central Africa remains to be demonstrated. A close synthesis of ethnographic and archaeological data is now needed to ground the geometric tradition in time and to reconstruct its social contexts.

ACKNOWLEDGEMENTS

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