The anthropology and history of rock art in the Lower Congo in perspective

Geoffroy Heimlich*



The rock art of the Lovo Massif region in the Lower Congo offers a fascinating and understudied example of artistic traditions, some of which predate the period of European contact. The first extensive, systematic survey of the region has identified key aspects of these rock art traditions, and has obtained radiocarbon dates that facilitate new interpretations of the relationship between the rock art and the historical kingdom of Kongo. Multiple perspectives are used to integrate anthropological, historical and archaeological data with stories from local mythology to show how the significance of this art has evolved over time. As a result of this

study, the unique cultural heritage of the Lovo Massif rock art has been put forward for protection under the UNESCO World Heritage list.

Keywords: Democratic Republic of the Congo, Lovo Massif, Kongo kingdom, rock art, multi-perspective

The Lovo Massif

Unlike rock art in the Sahara and southern Africa, both of which are extensively documented, rock art in Central Africa remains widely unknown (cf. de Maret 1982; Smith 1995, 1997; Le Quellec 2004). Yet rock art was an important part of Kongo culture, and when dated and considered within its cultural context, the images take on new meanings helpful for furthering our understanding of Kongo decorative systems and, more broadly, past societies and traditions in Central Africa.

The Lower Congo possesses one of the richest concentrations of rock art (145 sites) in this area, and although reported in the sixteenth (del Santissimo Sacramento 1583) and nineteenth centuries (Tuckey & Smith 1818), it has never been comprehensively explored. As a result, its age has remained uncertain, but preliminary research has, however, revealed

© Antiquity Publications Ltd, 2016 ANTIQUITY 90 353 (2016): 1270–1285

doi:10.15184/aqy.2016.142

^{*} Institut des Mondes Africains, UMR 8171 (CNRS)—UMR 243 (IRD), Centre Malher, 9 rue Malher, 75004 Paris, France; and Rock Art Research Institute, School of Geography, Archaeology and Environmental Studies, University of the Witwatersrand, 1 Jan Smuts Avenue, Braamfontein 2050, Johannesburg, South Africa (Email: geoffroy.heimlich@orange.fr)

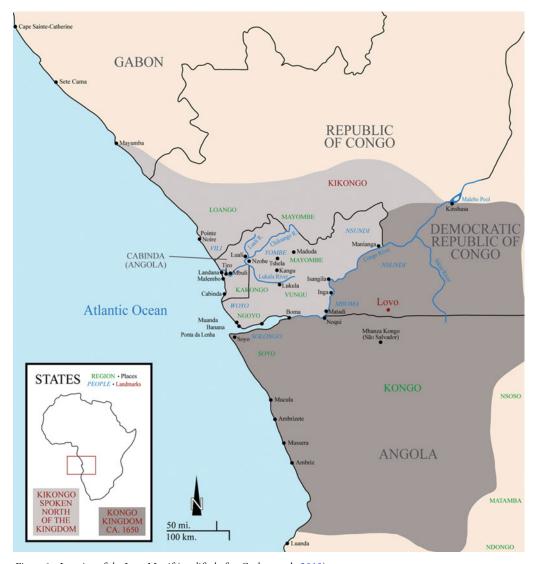


Figure 1. Location of the Lovo Massif (modified after Cooksey et al. 2013).

one coherent entity: the Lovo Massif (Heimlich 2010a, 2014a). It is located within the westernmost region of the Democratic Republic of the Congo, north of the ancient Kongo kingdom, and inhabited by Ndibu, a subgroup of the Kongo (Figure 1). Hundreds of limestone outcrops with carved surfaces, as well as numerous caves and rocky overhangs, rise up over an area of about 430km². The massif was studied in 1952 by Joseph de Munck (1960), Paul Raymaekers and Hendrik van Moorsel (1964), and by Pierre de Maret (1982, 1994). No additional field research was undertaken on the rock art of the Lower Congo until 2007.

The rock art of Central Africa is distinguished by the importance of painted and engraved non-figurative art. In most cases, the meaning of these images remains unclear despite

extensive studies such as those at the site of Bidzar in Cameroon, or the Ogooué Valley in Gabon (Marliac 1981; Oslisly & Peyrot 1993). Locally at least, however, the Democratic Republic of the Congo has long been known for its rock art sites (cf. Calonne-Beaufaict 1921; Breuil 1952; Mortelmans 1952). In her dissertation on the rock art of Central Africa, Alexandra Loumpet-Galitzine (1994) estimated that there were 10 000 images across a sample of 92 sites, including 682 figures in the Lovo Massif.

When Portuguese sailors discovered the Kongo kingdom in 1483, they were astonished to discover a centralised political state. At the height of the Kongo hegemony, during the late sixteenth and early seventeenth centuries, the kingdom controlled land that today belongs to the Democratic Republic of the Congo, Angola and the Republic of the Congo, spanning an area of approximately 130 000km² (Thornton 1983). Following the conversion to Christianity of several kings beginning in the fifteenth century, missionaries, emissaries and traders were able to give a precise description of daily and religious life in the kingdom. As an exceptionally significant cultural landmark for Africans and the African Diaspora, Kongo culture has been among the most prominent of African traditions in the Americas (Arrom & García Arévalo 1986; Ferguson 1992; Deagan & MacMahon 1995; Cooksey et al. 2013).

From the end of the fifteenth century, Kongo became one of the best-documented kingdoms of Africa thanks to historical records (Cuvelier & Jadin 1954; Balandier 1965; Vansina 1965; Thornton 1983; Hilton 1985) and, more recently, ethnographic, anthropological and art historical studies (Laman 1953, 1957, 1962, 1968; Van Wing 1959; Fu-Kiau kia Bunseki-Lumanisa 1969; Janzen & MacGaffey 1974; Thompson et al. 1981; MacGaffey 1986, 2013; MacGaffey et al. 1993; de Heusch 2000; Fromont 2014). Nevertheless, it remains underexplored archaeologically (Clist 1991; de Maret 2005, 2006). For the moment, publications relating to the Early Iron Age, a period that saw the emergence of the Kingdom of Kongo, are rare (Clist 2012). Therefore, the chronological framework outlined by Georges Mortelmans, completed later by Pierre de Maret, and today by the KongoKing Research Group, continues to be the basis for the classification of ceramic groups in the Lower Congo (Mortelmans 1962; de Maret 1972, 1986; Clist et al. 2015a & b). Not until the last six centuries of our era can other groups of Lower Congo ceramics be recognised in association with the Kongo kingdom. Their dispersion could bear witness to the commercial and political entities of the time (de Maret 2005).

Between 2007 and 2011, a series of four field studies were conducted with the following research objectives:

- To produce the most complete inventory possible of the Lovo Massif rock art.
- To determine the sequence of styles and the areas where they are found.
- To date the rock art.
- To correlate the rock art with the archaeological sequence, determining the relationships between the art and the Kongo kingdom.
- To assess the extent to which these sites are still visited today for religious or ceremonial reasons.

[©] Antiquity Publications Ltd, 2016

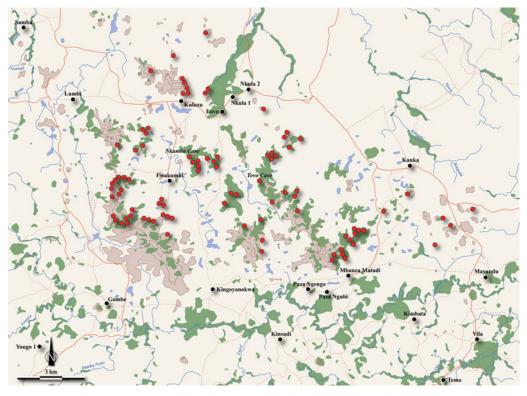


Figure 2. Map of the rock art sites studied in the Lovo Massif. The red circles indicate the rock art sites, while the black circles indicate villages. The sites of Fwakumbi and Ngembo are not shown as they are located in a neighbouring area.

• To bring the significance of the Lovo Massif rock art to the attention of UNESCO's World Heritage list.

Going beyond iconographic analyses, this research shows that rock art can provide historians with a primary source of evidence, alongside historical records and oral traditions, through integration with historical, anthropological, archaeological and linguistic data (Le Quellec *et al.* 2009).

New investigations

With 102 different sites (including 16 decorated caves) and more than 5000 images, the Lovo Massif is one of the largest known concentrations of rock art in Central Africa. Between 2007 and 2011, 53 of these sites were studied, 43 of which had never before been reported. Around 78 per cent of the Lovo Massif area was surveyed, and images were recorded using digital photography following the method developed by Le Quellec *et al.* (2015). The red circles shown on the map of the region in Figure 2 represent the main outcrops of the Lovo Massif that have been studied (but not outlying ones).

Once the database was completed, the distribution of the rock art could be assessed, something that had not previously been possible. First, the rock images were classified

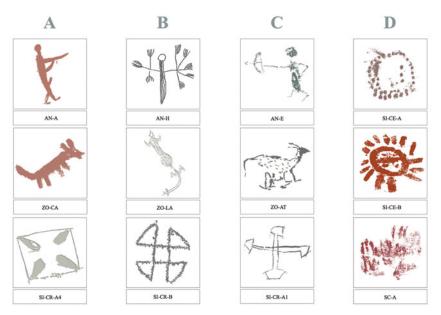


Figure 3. The main image types associated with the four groups of rock art identified in the Lovo Massif area. Groups A, B and C appear to be variants of the same stylistic Kongo tradition, while group D appears more distinct.

into four groups: A, B, C and D (Figure 3). Group A includes anthropomorphs and therianthropes (mythical beings, part human and part animal) painted in red and armed with rifles or smoking pipes. The cross SI-CR-A4 (Figure 3) was the most frequently recorded motif. Group B essentially consists of engraved motifs. The only anthropomorphic type shows the trunk of a body represented by multiple lines. Lizard-like shapes and the cross SI-CR-B (Figure 3) are the most frequently recorded motifs. In group C, the anthropomorphs, drawn in black, are armed with a sword or a bow. Lizard-like shapes and antelopes are the two most typical zoomorphic types. The cross SI-CR-A1 (Figure 3) is the most frequently found. Group D is characterised by red geometric paintings with fingered prints (Figure 4).

Group A seems to have a much more diffuse distribution than groups B and C. Motifs of this group are found north of Mbanza Kongo (Figure 1), the former capital of the Kongo kingdom, as far west as the mouth of the Congo River, and also extend to the south. Groups B and C, in contrast, are restricted to the borders of the former Kongo kingdom.

Schematic paintings of the same type as group D are found in Zambia, Malawi, northern Mozambique, Angola, the Katanga province of the Democratic Republic of Congo, southern and western Tanzania and the environs of Lake Victoria. This wide distribution of red paintings suggests possible communication networks spanning large areas, and could relate to movements of hunter-gatherer populations, especially the groups known as the Twa (Clark 1959; Phillipson 1972, 1976; Smith 1995, 1997; Namono 2010; Zubieta 2014). According to the traditions documented in Zambia and Malawi, they inhabited the area prior to the Bantu migrations. If the Pygmies were indeed the descendants of ancient indigenous peoples of Central Africa, this would have important implications for our understanding of how a large part of Africa was eventually populated (Smith 2006).

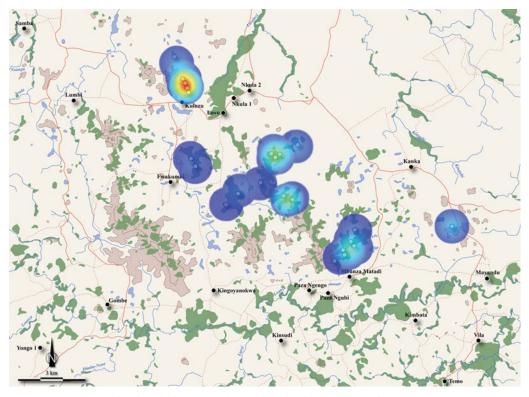


Figure 4. Map showing distribution of group D rock art with higher-density areas in red.

The results also show that there is a clear stylistic and thematic distinction separating the red geometric paintings of group D from those of groups A, B and C. We can, therefore, consider two possibilities. Either these different traditions correspond to two neighbouring ethnic groups, confirming the hypothesis of a hunter-gatherer rock art tradition, or they are associated with specific Kongo rituals (perhaps specifically male or female oriented). New archaeological excavations, direct dating of the paintings and further investigation of oral traditions enable us to test these hypotheses.

Radiocarbon dating the rock art of the Lower Congo

Traditionally, researchers have tried to establish the chronological sequence of rock art styles in the region by observing the styles and overlays (De Munck 1960; Mortelmans & Monteyne 1962; Raymaekers & van Moorsel 1964; de Maret 1994; Martinez-Ruiz 2013). By collaborating with the Centre de Recherche et de Restauration des Musées de France, it has been possible to obtain direct dates for charcoal drawings from this region for the first time (Heimlich *et al.* 2013). Nine direct dates (the quantity was limited by the challenging nature of the work) were obtained from paintings, including eight from Tovo Cave, which is unique in Africa (Figure 5 & Table 1).

Table 1. Results of the radiocarbon dating of the pigment samples, with calibrated calendar ages. Dates calibrated in OxCal v4.2 using the SHCal13 calibration curve (Bronk Ramsey 2009; Hogg *et al.* 2013).

Sample reference	Lab. code	Site	¹⁴ C age (year BP)	Calibrated age (2σ)
C45h28-I-68	SacA 29125	Tovo	1335 ± 45	652–859 AD (95.4%)
C45h28-I-157	SacA 22302	Tovo	250 ± 30	1636–1685 AD (36.1%)
				1729-1804 AD (59.3%)
C45h28-I-158	SacA 22301	Tovo	255 ± 30	1633-1682 AD (40.0%)
				1730-1803 AD (55.4%)
C45h28-I-159	SacA 22300	Tovo	270 ± 30	1515–1542 AD (3.8%)
				1625-1679 AD (53.1%)
				1732–1801 AD (38.5%)
C45h28-I-160	SacA 21461	Tovo	280 ± 30	1511–1552 AD (10.0%)
				1558–1574 AD (2.2%)
				1622-1676 AD (58.4%)
				1736–1799 AD (24.8%)
C45h28-I-164	SacA 22303	Tovo	365±30	1477-1640 AD (95.4%)
C45h28-I-165a	SacA 21462	Tovo	355±30	1485–1644 AD (95.4%)
C45h28-I-165b	SacA 21463	Toyo	325±30	1500-1597 AD (63.7%)
			2 · · 2 — 0 ·	1611–1658 AD (31.7%)
C44h26-I-114	SacA 29137	Nkamba	540±90	1271-1520 AD (93.2%)
			<i>yy</i> -	1592–1620 AD (2.2%)

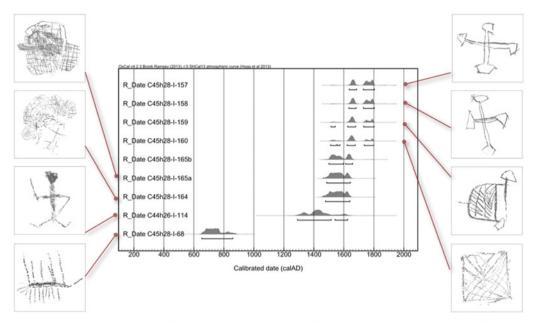


Figure 5. Direct radiocarbon dates for the rock art: presentation of probability densities of age (in AD) after calibration in OxCal v4.2 using the SHCal13 calibration curve (Bronk Ramsey 2009; Hogg et al. 2013).

[©] Antiquity Publications Ltd, 2016

In Tovo Cave, the initial results (Table 1) indicate dates between 1480 and 1800 cal AD (from SacA 21461–SacA 21463, from SacA 22300–SacA 22303). These results confirm the relationship with Kongo kingdom rituals, although the possibility that left-over materials from earlier occupations of the cave were used cannot be excluded (Valladas 2003; Cuzange et al. 2007; Bonneau et al. 2011). Two crosses (SacA 22301; SacA22302), whose lines

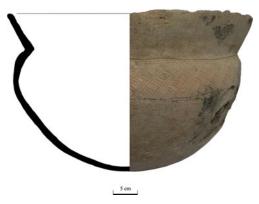


Figure 6. Ceramic vessel from Tovo Cave (photograph by G. Heimlich).

intersect in the middle, are dated to between 1630 and 1800 cal AD, and are similar to many objects of Kongo Christian art from the same period. An indeterminate zoomorphic figure in a small alcove in the first chambers of the cave was dated directly to 1335±45 BP, in other words, between 652 and 859 cal AD (SacA 29125).

In the Nkamba cave, a depiction of a human figure with the left hand on the hip and the right arm raised has been radiocarbon dated to between 1270 and 1620 cal AD (SacA 29137). This gesture appears to be characteristic of Kongo art, also appearing, for example, on the carved

hilt of the prestige swords of the sixteenth century (Fromont 2011a). The pommel, often pierced with two holes, looks like a head, and the guard that protects the hand resembles the arms of a human figure. The date of the Nkamba depiction confirms the importance of this posture as a symbol within Kongo art (Pigafetta & Lopes 1591; Merolla & Piccardo 1692; de Grandpré 1801; L'Hoist 1932) potentially as far back as the thirteenth century AD. That is particularly significant given that little is known about the existence of the kingdom of Kongo prior to the arrival of Europeans (Ravenstein 1901; Cuvelier 1941; Van Wing 1959; Vansina 1963, 1994; Esteves 1989; Clist 1991, 2012; Thornton 2001a; de Maret 2005, 2006; Bostoen *et al.* 2013; Clist *et al.* 2015a & b).

In another cave among the Tovo outcrops, a hearth has been observed with a ceramic of group III placed upside down. Husks of peanuts (*Arachis hypogaea*) and sweet potato skins (*Ipomoea batatas*) were also collected inside the hearth. Nearby, a level containing achatines shells (*Achatina fulica*), of a thickness of 400mm, was observed. A wood utensil (in the form of a double oval-shaped spoon) was also collected. At the bottom of the pottery, a sample was taken on a charred section, allowing the group III ceramics to be radiocarbon dated for the first time. The date was indicated between 1434 and 1618 AD cal AD (SacA 172 29124) (Figure 6). These results suggest that the occupation of the Tovo and Nkamba Caves were contemporaneous with the ancient kingdom, while also allowing correlation between some of the directly dated Tovo motifs and ceramic types with similar decorative patterns.

Rock art and the history of the Kongo kingdom

The results of this research allow rock art traditions to be integrated with Kongo ritual practices, confirming that certain rituals and symbolic aspects

of Kongo art are pre-Christian. They also show that the rock art includes examples of a complementary illustration of decorative motifs that are featured on



Figure 7. Crucifix from the church of Ngongo Mbata (photograph by G. Heimlich).

a variety of objects (basketries, textiles, ivory horns, pottery, crucifixes (Figure 7), tombstones, headgear and ornaments), as well as in the signatures of Kongo kings and nobles. Interlaced diamond motifs, grids of diamond or quadrangular shapes and Kongo crosses are recurrent throughout the Kongo kingdom. They are a fundamental feature of Kongo visual syntax over the long term, and are ultimately derived from basketry and weaving (Mortelmans & Monteyne 1962; Thompson *et al.* 1981; Thornton 1998; Bassani & McLeod 2000; Fromont 2011b, 2014).

The significance of the Kongo cross over time

With a view to interpreting the principal characteristics of Kongo themes, one may consider the function and meaning of the cross symbol (Figure 8). The cross was one of the major symbols of the kimpasi initiation ceremony, much to the annoyance of European missionaries (Cavazzi 1687; de Bouveignes & Cuvelier 1951). Placed in the middle of a shrine and flanked by two anthropomorphic statues (Toso 1984), the cross referred to the cyclical passage from death to afterlife. Other markers included strangely shaped stones and twisted, red-coloured roots known to be embodiments of nkita supernatural forces that also played

a principal role in this ceremony (da Caltanisetta & Bontinck 1970). A deposit of this type was observed in the decorated cave of Nkamba, which may well date back to the sixteenth century. Nowadays, several local Kongo chiefs still relate some of the rock art of the Lovo Massif to *kimpasi*.

At the confluence of Kongo and Christian religious thought, the cross was a symbol of equal importance to both religious cultures. It belonged to Christianity, as well as to traditional Kongo religion, in which the use of the cross predates the arrival of Christian missionaries and was probably rooted in an old Kongo symbolic tradition (Fromont 2014).



Figure 8. Art within the decorated cave of Ntadi Ntadi, depicting three cruciform Kongo crosses, a lizard-like shape and a gridded pattern (photograph by G. Heimlich).

Consequently, it is quite possible, if not probable, that at least some of the rock art of the Lovo Massif was connected to the *kimpasi* initiation rite (Heimlich 2013a & b; Heimlich et al. 2013).

A particular link with the world of the afterlife was also highlighted (Thornton 2001b). One of the main rituals of the *santu* institution, with which the Ndimbankondo rock art can be connected, was to make a low bow at the grave of a great deceased hunter to obtain his blessing (Bentley 1900; Weeks 1908, 1909; Olson-Manke 1928; Manker 1929). Figure 9 shows this type of cross as seen at Ndimbankondo rock art sites. Ndimbankondo is one of the main outcrops of the Lovo Massif. The Ndimbankondo cruciform motifs are identical to the '*santu* crosses' (previous scholars having labelled these as 'Maltese crosses') used in these rituals (Figure 10).

Rock art and local mythologies

Another important relationship connects rock art and mythology. All known mythical narratives in Central Africa show a double anthropogony whereby the rock art is believed to have been created by an earlier population of small deformed beings who subsequently disappeared. Different Kongo clans settled on lands of the *mafulamengo*, *mbwidi mbodila* and *mbaka* (Cuvelier 1930, 1931; Laman 1936, 1953, 1962; Van Wing 1959; Wannyn 1961; de Heusch 1975, 2000; MacGaffey 1986). In the oral traditions collected in the Lovo Massif, however, there is no mention of the *mbaka*, who are sometimes characterised as dwarves or Pygmies. The *mafulamengo* were directly associated with ironworking and the prestige and power that specialised knowledge of blacksmithing conferred.

As is often the case with rock art in Africa, the images from the Lovo Massif are considered by current inhabitants of the area to have been the work of legendary peoples, former owners



Figure 9. Tracing of a santu cross at the rock art site of Ndimbankondo I (photograph by G. Heimlich).

of the land and masters of the elements, who bear no relation to the modern day population (Le Quellec 2004).

Among the *mafulamengo* and *mbwidi mbodila*, the local *simbi* spirits were the authors of the rock art of Fwakumbi and Ngembo. Bernard Divangambuta, the local chief of the village of Mbanza Nkula, indicated that 12 *simbi* water spirits are engraved at Fwakumbi (Heimlich 2010b, 2014a), and that his ancestors were not the creators of the rock art. They only made offerings to local spirits named *simbi* in order to obtain their blessing. The use of the Fwakumbi and Ngembo engravings probably results from a renewed motivation, that is to say, the integration of ancient art with current ritual practices. Whether or not this reading is correct, all these traditions clearly fit the rock art within the ritual universe of local interpreters (Vansina 1982; de Maret 1994; Le Quellec 2004).

That much is illustrated by the myth relating to the site of Fwakumbi, which refers to a couple who drowned and subsequently turned into a *simbi* after transgressing a prohibition. A variant of this same mythical tradition has been recorded in the region of Mbanza Kongo (Martinez-Ruiz 2013). Accordingly, we can conclude that rock art, toponymy (Fwakumbi), the significance of water and a form of worship devoted to *simbi* are all closely intertwined and of great symbolic importance among Kongo peoples.

Concluding remarks

This study presents results from the first systematic survey of the Lovo Massif rock art. Four groups of motif were identified, three of which © Antiquity Publications Ltd, 2016

(A, B and C) can be considered variants of a single stylistic Kongo tradition. For the first time, direct radiocarbon dates have been obtained for



Figure 10. Santu cross used in rituals (photograph by J. Van de Vyver, Royal Museum for Central Africa, Tervuren © 2016).

the motifs that confirm their contemporaneity with rituals of the Kongo kingdom. Nevertheless, a more precise chronological framework is desirable, as it is possible that the origin of the rock art traditions lies at an earlier period, if one of the dates from Tovo cave dates (SacA 29125) can be confirmed.

By exploring perspectives derived from ethnology, history, archaeology and mythology, it has become apparent that rock art was an important part of Kongo culture. This study has integrated rock art with Kongo ritual practices, confirming that certain aspects of Kongo rituals and symbols belong to the pre-Christian period. Even simple designs, such as the cross motif, may become more meaningful if they can be dated and placed in a specific cultural context. The composite symbolism of the cross has been highlighted here because it is an expression of ancient religious syncretism (Fromont 2011b; Thornton 2013). This approach has also allowed some of the rock art to be related to kimpasi or santu initiation rituals. As with historical records and oral traditions, rock art can also provide historians with first-class documentation that offers a glimpse into the African past.

Sadly, however, the Lovo Massif is currently threatened by numerous limestone quarries (Heimlich 2014a & b). To save this important heritage, the need for protective measures is urgent. In accordance with the long-held wishes of the Congolese authorities, we have proposed a pilot initiative in the Lovo zone to place this rock art on the UNESCO list of World Heritage Sites to protect these sites for future generations.

Acknowledgements

I would like to thank Jean-Loïc Le Quellec and Pierre de Maret for their supervision, and the Institut des Musées Nationaux du Congo for their close collaboration throughout this research. Thanks also go to Clément Mambu Nsangathi, as well as the inhabitants of the Lovo Massif. I am grateful for logistical support from the Compagnie Sucrière of Kwilu Ngongo, and for scholarships granted by the French Institute of South Africa. The Royal Museum for Central Africa in Tervuren, Belgium, kindly gave me access to archives and collections, and various colleagues provided thoughtful discussion while undertaking this work. Finally, I would like to thank Michel

Geoffroy Heimlich

Menu, Pascale Richardin and Éric Laval from the Centre de Recherche et de Restauration des Musées de France and their colleagues from the Laboratoire de Mesure du Carbone 14.

References

- ARROM, J.J. & M.A. GARCÍA ARÉVALO. 1986. Cimarrón. Santo Domingo: Fundación García-Arévalo.
- BALANDIER, G. 1965. La vie quotidienne au royaume de Kongo du XVIème au XVIIIème siècle. Paris: Hachette.
- BASSANI, E. & M. McLEOD. 2000. African art and artefacts in European collections: 1400–1800. London: British Museum.
- BENTLEY, W.H. 1900. *Pioneering on the Congo.* New York, Chicago (IL) & Toronto: F.H. Revell.
- BONNEAU, A., F. BROCK, T. HIGHAM, D.G. PEARCE & A.M. POLLARD. 2011. An improved pretreatment protocol for radiocarbon dating black pigments in San rock art. *Radiocarbon* 53: 419–28.
- BOSTOEN, K., O. NDONDA TSHIYAYI & G.-M. DE SCHRYVER. 2013. On the origin of the royal Kongo title *ngangula*. *Africana Linguistica* 19: 1–20.
- Breuil, H. 1952. *Les figures incisées et ponctuées de la grotte de Kiantapo (Katanga)*. Tervuren: Annales du Musée royal du Congo belge.
- Bronk Ramsey, C. 2009. Bayesian analysis of radiocarbon dates. *Radiocarbon* 51: 337–60.
- CALONNE-BEAUFAICT, A. DE. 1921. Azande. Introduction à une ethnographie générale des bassins de l'Ubangi-Uélé et de l'Aruwimi. Bruxelles: M. Lamertin.
- CAVAZZI, G.A. 1687. Istorica descrizione de' tre regni Congo, Matamba et Angola sitvati nell' Etiopia inferiore occidentale e delle missioni apostoliche esercitateui da religiosi Capuccini. Bologna: Giacomo Monti.
- CLARK, J.D. 1959. The rock paintings of northern Rhodesia and Nyasaland, in R. Summers (ed.) Prehistoric rock art of the Federation of Rhodesia & Nyasaland: 163–220. Salisbury: National Publications Trust.
- CLIST, B. 1991. L'archéologie du royaume Kongo, in R. Lanfranchi & B. Clist (ed.) Aux origines de l'Afrique Centrale Atlantique: 253–56. Libreville: CICIBA; Saint-Maur: Sépia.
- 2012. Pour une archéologie du royaume de Kongo: la tradition de Mbafu. Azania 47: 175–209.
- CLIST, B., E. CRANSHOF, G.-M. DE SCHRYVER, D. HERREMANS, K. KARKLINS, I. MATONDA, F. STEYAERT & K. BOSTOEN. 2015a. African-European contacts in the Kongo kingdom (sixteenth–eighteenth centuries): new archaeological insights from Ngongo Mbata (Lower Congo, DRC). *International Journal of Historical* Archaeology 19: 464–501. http://dx.doi.org/10.1007/s10761-015-0296-3

- CLIST, B., E. CRANSHOF, G.-M. DE SCHRYVER,
 D. HERREMANS, K. KARKLINS, I. MATONDA,
 C. POLET, A. SENGELØV, F. STEYAERT,
 C. VERHAEGE & K. BOSTOEN. 2015b. The elusive archaeology of Kongo urbanism: the case of Kindoki, Mbanza Nsundi (Lower Congo, DRC).

 African Archaeological Review 32: 369–412.

 http://dx.doi.org/10.1007/s10437-015-9199-2
- COOKSEY, S., R. POYNOR & H. VANHEE. 2013. Kongo across the waters. Gainesville: University of Florida Press
- CUVELIER, J. 1930. Traditions congolaises. *Congo* II(1): 469–87.
- 1931. Traditions congolaises. Congo II(2): 193-208.
- 1941. Het oud-koninkrijk Kongo: oorsprong, ontdekking en eerste christianisatie van het oude rijk, en regeering van Kongo's grootsten koning Affonso Mvemba Nzinga (1541). Bruges: Desclée De Brouwer.
- Cuvelier, J. & L. Jadin. 1954. L'ancien Congo d'après les archives romaines (1518–1640). Bruxelles: Institut Royal Colonial Belge.
- Cuzange, M.-T., E. Delqué-Kolic, T. Goslar, P.M. Grootes, T. Higham, E. Kaltnecker, M.-J. Nadeau, C. Oberlin, M. Paterne, J. Van der Plicht, C. Bronk Ramsey, H. Valladas, J. Clottes & J.-M. Geneste. 2007. Radiocarbon intercomparison program for Chauvet Cave. Radiocarbon 49: 339–47.
- DA CALTANISETTA, L. & F. BONTINCK. 1970. *Diaire congolais.* 1690–1701. Louvain: Éditions Nauwelaert. Béatrice-Nauwelaerts.
- DEAGAN, K. & D. MACMAHON. 1995. Fort Mose: colonial America's black fortress of freedom. Gainesville: University Press of Florida.
- DE BOUVEIGNES, O. & J. CUVELIER. 1951. Jérôme de Montesarchio, apôtre du vieux Congo. Namur: Grands Lacs.
- DE GRANDPRÉ, L.M.J. 1801. Voyage à la côte occidentale d'Afrique fait dans les années 1786 et 1787. Suivi d'un voyage fait au cap de Bonne—espérance, contenant la description militaire de cette colonie. Paris: Dentu.
- DE HEUSCH, L. 1975. Le roi, le forgeron et les premiers hommes dans l'ancienne société kongo. Systèmes de Pensée en Afrique Noire 1: 165–75.
- 2000. Mythes et rites bantous. III, le roi de Kongo et les monstres sacrés. Paris: Gallimard.
- DE MARET, P. 1972. Étude d'une collection de céramiques protohistoriques du Bas-Zaïre. Unpublished BSc dissertation, Université Libre de Bruxelles.

The anthropology and history of rock art in the Lower Congo in perspective

- 1982. Rock art, in F. van Noten (ed.) The archaeology of Central Africa: 97–99. Graz: Akademische Drück-u.
- 1986. The Ngovo group. An industry with polished stone tools and pottery in Lower Zaïre. African Archaeological Review 4: 103–33.
- 1994. Archaeological and other prehistoric evidence of traditional African religious expression, in T.D. Blakely, W.E.A. van Beek & D.L. Thomson (ed.) Religion in Africa: experience and expression: 183–95. London: James Currey.
- 2005. From pottery groups to ethnic groups in Central Africa, in A. Stahl (ed.) African archaeology: a critical introduction: 420–40. Oxford: Blackwell.
- 2006. What to expect in excavating the Kongo kingdom capital, in H.-P. Wotzka (ed.)
 Grundlegungen. Beiträge zur Europäischen und Afrikanischen Archäologie für Manfred K.H. Eggert: 319–28. Tübingen: Francke Attempto.
- DE MUNCK, J. 1960. Les grottes et les roches gravées du Bas-Kongo. *Ngonge Kongo: Carnet d'Histoire et de Littérature* 3: 10.
- DEL SANTISSIMO SACRAMENTO, D. 1583. Relación del Viage de Guinea que hiço el Padre Fray Diego del Sactissimo Sacramento, con sus compañeros fray Diego de la Encarnacion y fray Francisco Indigno. Año de mill y quinientos y ochenta y tres. Biblioteca Nacional de Madrid, Manuscript 89r–111v, Madrid.
- ESTEVES, E. 1989. Mbanza Kongo, ville archéologique. *Nsi* 6: 159–64.
- FERGUSON, L. 1992. Uncommon ground: archaeology and early African America, 1650–1800. Washington, D.C.: Smithsonian Institution.
- FROMONT, C. 2011a. Dance, image, myth, and conversion in the kingdom of Kongo, 1500–1800. African Arts 44: 54–65. http://dx.doi.org/10.1162/afar.2011.44.4.52
- 2011b. Under the sign of the cross in the kingdom of Kongo: religious conversion and visual correlation in early modern Central Africa. RES: Anthropology and Aesthetics 59–60: 109–23.
- 2014. The art of conversion. Christian visual culture in the kingdom of Kongo. Chapel Hill: University of North Carolina Press.
- FU-KIAU KIA BUNSEKI-LUMANISA, A. 1969. N'kôngo ye nza yakun'zungidila. Nza-Kôngo (Le Mukongo et le monde qui l'entourait. Cosmogonie-Kôngo). Kinshasa: Office National de la Recherche et du Développement.
- HEIMLICH, G. 2010a. Un archéologue au Congo. *Le Monde fr* and *ARTE Radio*. Available at: www.lemonde.fr/congo (accessed 15 April 2015).
- 2010b. Lower Congo rock art revisited. *Nyama Akuma* 74: 42–50.

- 2013a. Rock art as a source for the history of the Kongo kingdom, in S. Cooksey, R. Poynor & H. Vanhee (ed.) Kongo across the waters: 34–37. Gainesville: University of Florida Press.
- 2013b. The Kongo cross across centuries, in
 S. Cooksey, R. Poynor & H. Vanhee (ed.) Kongo across the waters: 38–39. Gainesville: University of Florida Press.
- 2014a. L'art rupestre du massif de Lovo (République démocratique du Congo). Unpublished PhD dissertation, Université de Paris I Panthéon-Sorbonne & Université Libre de Bruxelles.
- 2014b. Le Massif de Lovo: un patrimoine important et menacé, in B. Favel & C. Gaulthier Kurhan (ed.) Patrimoines end. Esquisse d'état des lieux en Afrique: 141–54. Paris: Riveneuve.
- HEIMLICH, G., P. RICHARDIN, N. GANDOLFO, É. LAVAL & M. MENU. 2013. First direct radiocarbon dating of the Lower Congo rock art (Democratic Republic of the Congo). *Radiocarbon* 55: 1383–90. http://dx.doi.org/10.2458/azu_js_rc.55.16098
- HILTON, A. 1985. *The kingdom of Kongo*. Oxford: Clarendon.
- HOGG, A.G., Q. HUA, P.G. BLACKWELL, M. NIU, C.E. BUCK, T.P. GUILDERSON, T.J. HEATON, J.G. PALMER, P.J. REIMER, R.W. REIMER, C.S.M. TURNEY & S.R.H. ZIMMERMAN. 2013. SHCal13 Southern hemisphere calibration, 0–50,000 years cal BP. *Radiocarbon* 55: 1889–903. http://dx.doi.org/10.2458/azu_js_rc.55.16783
- JANZEN, J. & W. MACGAFFEY. 1974. An anthology of Kongo religion. Primary sources from Lower Zaïre (University of Kansas Publications in Anthropology 5). Lawrence: University of Kansas.
- LAMAN, K.E. 1936. Dictionnaire kikongo-français. Avec une étude phonétique décrivant les dialectes les plus importants de la langue dite kikongo. Bruxelles: G. Van Campenhout.
- 1953. The Kongo I. Stockholm: Victor Pettersons.
- 1957. The Kongo II. Uppsala: Almqvist & Wiksell.
- 1962. The Kongo III. Uppsala: Kegan Paul, Trench, Trubner & Co and Almqvist & Wiksells.
- 1968. The Kongo IV. Uppsala: Berlingska Boktryckeriet.
- LE QUELLEC, J.-L. 2004. Arts rupestres et mythologies en Afrique. Paris: Flammarion.
- Le Quellec, J.-L., F.-X. Fauvelle-Aymar & F. Bon. 2009. Vols de vaches à Christol Cave. Histoire critique d'une image rupestre d'Afrique du Sud. Paris: Publications de la Sorbonne.

- Le Quellec, J.-L., F. Duquesnoy & C. Defrasne. 2015. Digital image enhancement with DStretch[®]: is complexity always necessary for efficiency? *Digital Applications in Archaeology and Cultural Heritage* 2–3: 55–67. http://dx.doi.org/10.1016/j.daach.2015.01.003
- L'HOIST, A. 1932. L'ordre du Christ au Congo. Revue de l'Aucam VII: 258-66.
- LOUMPET-GALITZINE, A. 1994. Essai méthodologique pour une approche diachronique et comparée de la forme, du sens et de la fonction des représentations rupestres schématiques d'Afrique équatoriale. Unpublished PhD dissertation, Université de Paris I Panthéon-Sorbonne.
- MACGAFFEY, W. 1986. Religion and society in Central Africa: the BaKongo of Lower Zaire. Chicago (IL): University of Chicago Press.
- 2013. Meaning and aesthetics in Kongo art, in
 S. Cooksey, R. Poynor & H. Vanhee (ed.) Kongo across the waters: 172–79. Gainesville: University of Florida Press.
- MACGAFFEY, W., M.D. HARRIS, S.H. WILLIAMS,
 D.C. DRISKELL & National Museum of African Art (USA). 1993. Astonishment and power. Washington,
 D.C.: published for the National Museum of African Art by the Smithsonian Institution.
- MANKER, E. 1929. Bland Kristallbergens folk: bilder ur etnografiska riksmuseets arkiv. Stockholm: Albert Bonniers.
- MARLIAC, A. 1981. Recherches sur les pétroglyphes de Bidzar au Cameroun septentrional. Paris: Éditions de l'Office de la recherche scientifique et technique outre-mer.
- MARTINEZ-RUIZ, B. 2013. Kongo graphic writing and other narratives of the sign. Philadelphia (PA): Temple University Press.
- MEROLLA, G. & A. PICCARDO. 1692. Breve, e svccinta relatione del viaggio nel regno di Congo nell' Africa meridionale, fatto dal P. Girolamo Merolla da Sorrento. Continente variati clima, arie, animali, fiumi, frutti, vestimenti con proprie figure, diuersita di costumi, e di viueri per l'vso humano. Napoli: Per F. Mollo.
- MORTELMANS, G. 1952. Les dessins rupestres gravés ponctués et peints du Katanga. Essai de synthèse. Tervuren: Annales du Musée royal du Congo belge.
- 1962. Archéologie des grottes Dimba et Ngovo (region de Thysville, Bas-Congo), in
 G. Mortelmans & J. Nenquin (ed.) Actes du IVème Congrès panafricain de préhistoire et de l'étude du quaternaire: 407–25. Tervuren: Musée royal de l'Afrique centrale.

- MORTELMANS, G. & R. MONTEYNE. 1962. La grotte peinte de Mbafu, témoignage iconographique de la première évangélisation du Bas-Congo, in G. Mortelmans & J. Nenquin (ed.) Actes du IVème Congrès panafricain de préhistoire et de l'étude du quaternaire: 457–85. Tervuren: Musée royal de l'Afrique centrale.
- NAMONO, C. 2010. Resolving the authorship of the geometric rock art of Uganda. *Journal of African Archaeology* 8: 239–57. http://dx.doi.org/10.3213/1612-1651-10172
- Olson-Manke, E. 1928. Santu, der kreuzförmige Jagdfetisch der Bakongo. Völkerkunde, Beiträge zur Erkenntnis von Mensch und Kultur 10–12: 217–23.
- OSLISLY, R. & B. PEYROT. 1993. Les gravures rupestres de la vallée de l'Ogooué (Gabon). Saint-Maur: Sépia.
- PHILLIPSON, D.W. 1972. Prehistoric rock paintings and engravings of Zambia. Livingstone: Livingstone Museum.
- 1976. The prehistory of eastern Zambia. Nairobi: British Institute in East Africa.
- PIGAFETTA, F. & D. LOPES. 1591. Relatione del Reame di Congo et delle circonvicine contrade: tratta dalli Scritti e ragionamenti di Odoardo Lopez Portoghese per Filippo Pigafetta, con dissegni vari di Geografia, di piante, d'habiti, d'animali e altro. Roma: Appresso Bartolomeo Grassi.
- RAVENSTEIN, E.G. 1901. The strange adventures of Andrew Battell of Leigh, in Angola and adjoining regions. London: The Hakley Society.
- RAYMAEKERS, P. & H. VAN MOORSEL. 1964. *Dessins rupestres du Bas-Congo*. Léopoldville: Éditions de l'Université de Léopoldville.
- SMITH, B. 1995. Rock art in south-central Africa. A study based on the pictographs of Dedza District, Malawi and Kasama District, Zambia. Unpublished PhD dissertation, University of Cambridge.
- 1997. Zambia's ancient rock art. The paintings of Kasama. Livingstone: The National Heritage Conservation Commission of Zambia.
- 2006. Reading rock art and writing genetic history: regionalism, ethnicity and the rock art of southern Africa, in H. Soodyal (ed.) The prehistory of Africa: tracing the lineage of modern man: 76–96. Cape Town: Jonathan Ball.
- THOMPSON, R.F., J. CORNET & National Gallery of Art (USA). 1981. *The four moments of the sun: Kongo art in two worlds*. Washington, D.C.: National Gallery of Art.
- THORNTON, J.K. 1983. The kingdom of Kongo: civil war and transition, 1641–1718. Madison: University of Wisconsin Press.
- 1998. Africa and Africans in the making of the Atlantic world, 1400–1800. Cambridge & New York: Cambridge University Press.

The anthropology and history of rock art in the Lower Congo in perspective

- 2001a. The origins and early history of the kingdom of Kongo, c. 1350–1550. International Journal of African Historical Studies 4: 89–120.
- 2001b. Religious and ceremonial life in the Kongo and Mbundu, in L.M. Heywood (ed.) Central Africans and cultural transformations in the American diaspora: 71–90. Cambridge & New York: Cambridge University Press.
- 2013. Afro-Christian syncretism in the kingdom of Kongo. *Journal of African History* 54: 53–77. http://dx.doi.org/10.1017/S0021853713000224
- Toso, C. 1984. L'anarchia congolese nel sec. XVII : la relazione inedita di Marcellino d'Atri. Genova: Bozzi.
- Tuckey, J.H. & C. Smith. 1818. Narrative of an expedition to explore the river Zaire, usually called the Congo in South Africa, in 1816. London: John Murray.
- VALLADAS, H. 2003. Direct radiocarbon dating of prehistoric cave paintings by accelerator mass spectrometry. *Measurement Science and Technology* 14: 1487–92. http://dx.doi.org/10.1088/0957-0233/14/9/301
- VANSINA, J. 1963. Notes sur l'origine du royaume du Kongo. *Journal of African History* 4: 33–38. http://dx.doi.org/10.1017/S0021853700003698

- 1965. Les anciens royaumes de la savane. Les États des savanes méridionales de l'Afrique centrale des origines à l'occupation coloniale. Léopoldville: Institut de recherches économiques et sociales.
- 1982. Book review: The four moments of the sun: Kongo art in two worlds by Robert Farris Thompson; Joseph Cornet. African Arts 16: 23–96. http://dx.doi.org/10.2307/3335933
- 1994. Antécédents des royaumes kongo et teke.
 Muntu 9: 7–49.
- VAN WING, J. 1959. Études Bakongo: sociologie, religion et magie. Desclée: De Brouwer.
- WANNYN, R. 1961. *L'art ancien du métal au Bas-Congo.* Champles par Wavre Belgique: Éditions du Vieux Planquesaule.
- WEEKS, J.H. 1908. Notes on some customs of the Lower Congo people. *Folklore* 19: 409–37. http:// dx.doi.org/10.1080/0015587X.1908.9719844
- 1909. Notes on some customs of the Lower Congo people (continued). Folklore 20: 181–201. http:// dx.doi.org/10.1080/0015587X.1909.9719871
- Zubieta Calvert, L.F. 2014. The rock art of Chinamwali and its sacred landscape, in D.L. Gillette, M. Greer, M.H. Hayward & W.B. Murray (ed.) *Rock art and sacred landscapes*: 49–66. New York: Springer.

Received: 29 May 2015; Accepted: 24 August 2015; Revised: 18 September 2015