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# Megaliths of the World

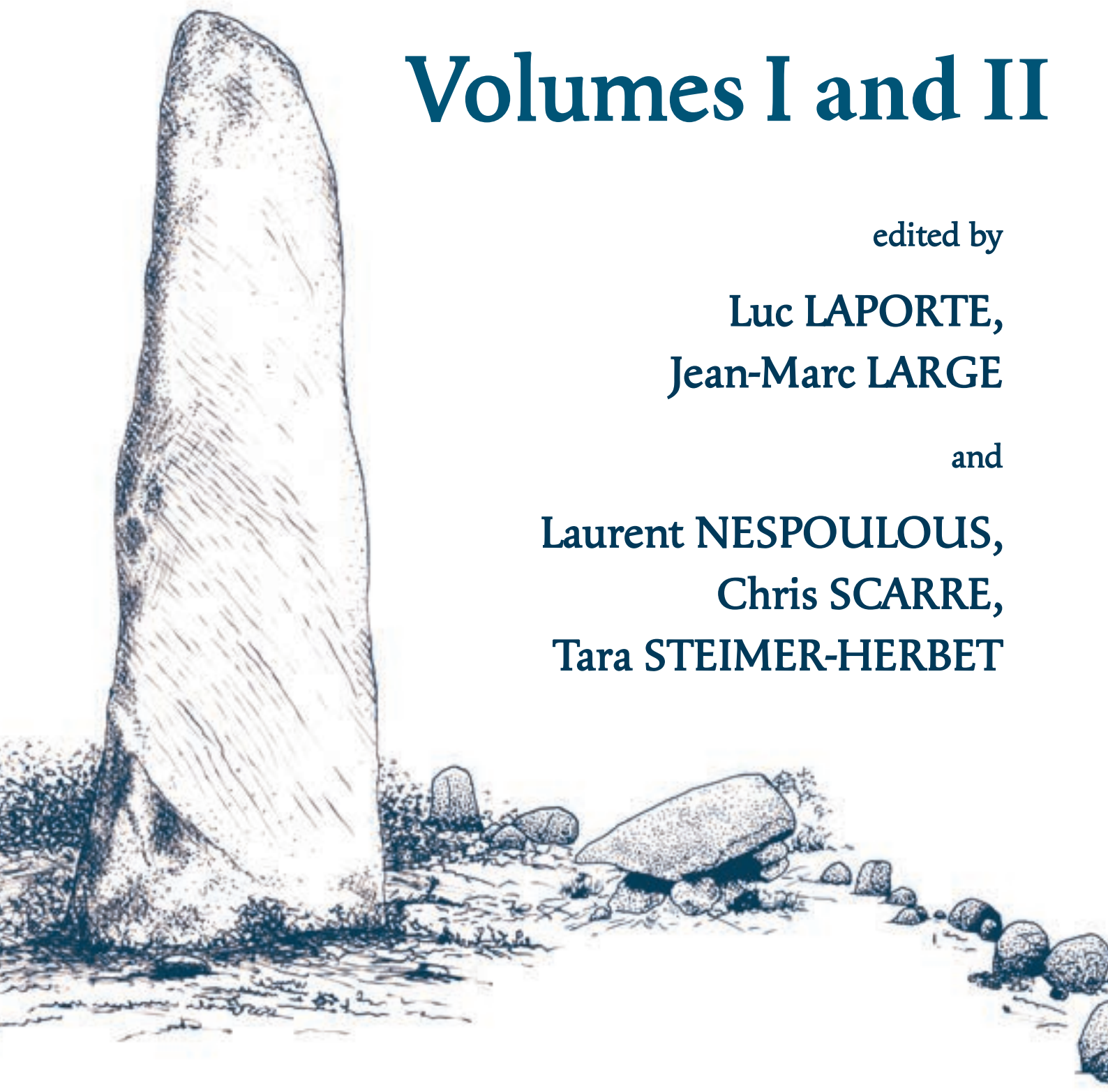
## Volumes I and II

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## Megaliths from Senegal and The Gambia in their regional context

**Abstract:** Senegambian megaliths are characterized by the presence of standing stones, called frontal stones, erected to the east of funerary monuments whose ruins take various forms in the landscape, sometimes sealed beneath a mound, with platforms measuring 3-11 m in diameter and ringed by standing stones or dry-stone walls. Even today, among the Bassari people, stone platforms support a roof – symbolizing the house of the dead – and cover a burial pit that widens at the base to receive the body of the deceased. Other stones were erected to the east of larger burial pits, covered by a mound, to form arrangements that have been compared to contemporary funerary structures of the Sereer people. The burial practices associated with these megalithic monuments are also varied: individual or multiple burials, exposure of bodies on the ground surface covered by the monumental structure, secondary deposits of human bones in various forms (including deposits of large baskets containing human remains, sometimes in a primary position), and even some reference to cremations. The current state of knowledge in this field, which has been revitalized during the last 10 years, will be discussed in the much broader context of funerary practices over two millennia in West Africa: funerary platforms lined with standing stones are attested in Liberia, Sierra Leone and Guinea and standing stones associated with other forms of mounds occur as far away as the Niger Delta in Mali. Gradually, the megaliths of Senegal and The Gambia are regaining the place that they have always held on the soil of the African continent.

**Keywords:** *megaliths, western Africa, Senegal, Gambia*

The megalithic ruins in the Senegalese and Gambian landscape appear to us today (in the dry season), either in the form of monoliths arranged in isolation, in pairs or in single or double alignments, or on the chord of a circle with a diameter ranging between 3 and 11 m. The height of these laterite blocks, shaped on at least three of their four sides, is generally between 0.80 and 1.20 m and, more rarely, up to 2 m (Martin & Becker 1974). While monuments with large diameters can consist of more than 25 contiguous standing blocks, smaller monuments are generally composed of fewer than a dozen regularly spaced monoliths. Partially collapsed dry-stone external walls contain a central mound and complete the façade of what must have been the front elevation of a platform (Laporte *et al.* 2012), although many of these platforms were surrounded only by a continuous low wall. A roof of plant materials could have covered such structures, as for the numerous ‘houses of the dead’ still erected today on the tombs of ancestors among many West African populations. One or more stones stand in a frontal position, east of the monument. Generally, the number of frontal stones is greater for circles with a large number of monoliths, whereas nearly 75% of the platforms surrounded by only a dry-stone wall have no frontal stones (Becker & Martin, forthcoming).

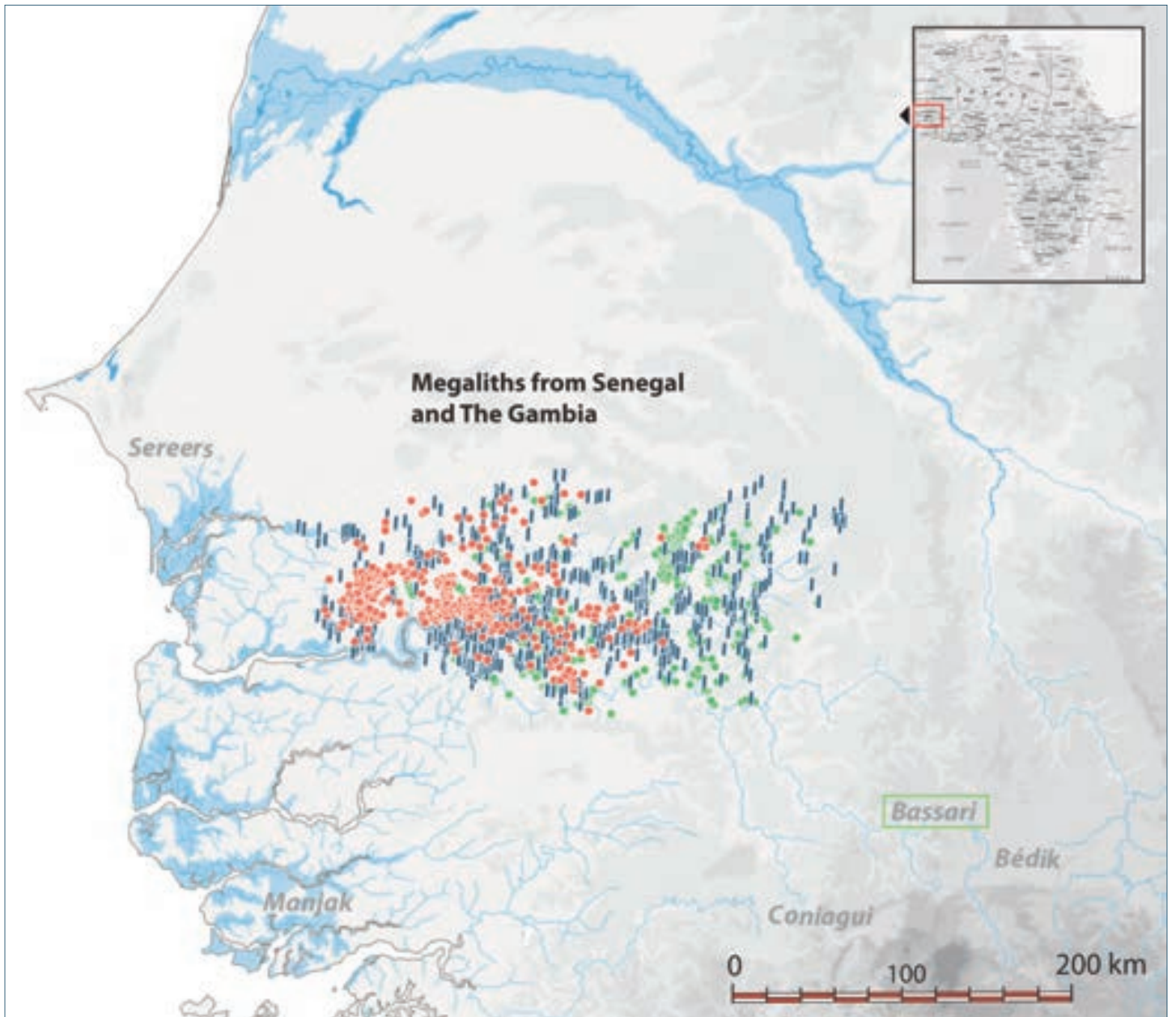
## 1. A brief history of twentieth century research

The megaliths of Senegal and The Gambia are certainly the most studied and best documented of the West African megaliths (Laporte *et al.* 2017). Small circles of upright stones surrounding a paved area are present in many villages in south-eastern Guinea, northern Liberia, and Sierra Leone (Haselberger 1960; Mauny 1961; Huysecom 1987). Oral traditions (Paulme 1946; Germain 1947) and rare archaeological surveys (Roll 1967) indicate their use as burial platforms (Atherton 1970; Gabel *et al.* 1972-1974). In Guinea-Bissau, numerous laterite monoliths are reported on the Bafata Plateau (Teixeira de Mota 1954; Davies 1967). In central Mali, the Tondidarou site suffered from early interventions (Raimbault & Sanogo 1991; Dembelé & Person 1993). The still active sanctuary of Tikho, at Sogota in southern Burkina Faso, comprises three small laterite monoliths (Père 2004: Fig. 253), with

an ogival shape similar to that recorded for examples erected in front of funeral monuments in eastern Senegal.

The first excavations report of the megaliths of Senegal and The Gambia were those of Captain Duchemin (1905), several years after they were first mentioned in the scientific literature (Maxwell 1898). For the 20th century, we have information for about 60 megalithic monuments (Todd 1903; Hamy 1904; Duchemin 1905; Todd & Wolbach 1911; Boutonnet 1916; Jouenne 1916, 1917, 1918, 1920, 1930; Mauny 1957, 1961; Parker 1923; Palmer 1939; Ozanne 1965; Thilmans *et al.* 1980; Gallay *et al.* 1982). The inventory drawn up by Martin and Becker (1984) included 7202 megalithic monuments: 3300 isolated stones (45.8%), 2181 small mound tombs (30.3%), 1053 megalithic circles (14.6%) and 668 megalithic tumuli (9.3%). The currently estimated 30000 km<sup>2</sup> range of these monuments is centred on the northern bank of the Gambia River and corresponds to the distribution of the identified frontal stones (Fig. 1). Although this range is, in places, limited by the availability of outcropping raw material, this is not sufficient to explain the absence of megalithic constructions towards western coastal areas.

Funerary monuments of a similar type, but without frontal stones, exist in central and northern Senegal (earthen tumuli; McIntosh & McIntosh 1993), and in western Mali and northern Guinea (tumuli and *cercles pierriers*; Filipowiak 1979; Dupuis *et al.* 2006; Raimbault 2006; Sanogo & Coulibaly 2013). They sometimes cover a sepulchral pit, often of similar shape and dimension to the many hypogea found further east (Liesegang & Sanogo 1977; Kiethega *et al.* 1993). The presence of human remains associated with the megaliths of Senegal and The Gambia is mentioned from the beginning of the 20th century: Du Laurens uncovered two primary burials under a megalithic circle at Kata, while Duchemin observed secondary deposits at Dialato (Hamy 1904; Duchemin 1905; Boutonnet 1916). Between 1915 and 1930, Jouenne carried out excavations in about 15 megalithic circles, where he insisted on the presence of secondary burials and cremations (Jouenne 1916-1918, 1930). Todd & Wolbach (1911) mention the possibility of human sacrifice for a dozen burials at Lamine-Koto, a hypothesis sub-



**Fig. 1** – Megaliths of Senegal and The Gambia. Red dots: ‘megalithic circles’; green dots: ‘stone circles’ or ‘stone tumuli’. On most of these monuments, standing stones were erected in a frontal position. They sometimes also appear in the landscape in a seemingly isolated way, indicated by blue bars (CAD: L. Laporte and A. Delvoe).

sequently adopted by Thilmans (Thilmans *et al.* 1980).

Of three zones of Senegambian megalithism defined at the time (Thilmans *et al.* 1980: 154-156), the western zone (where most of the megalithic circles are concentrated) is by far the best known. The sepulchral levels contain abundant metal objects, mainly weapons or ornaments often directly associated with the human bones, while the external

area between the façade of the monument and the frontal stones contains abundant pottery deposits. By contrast, the eastern zone, which contains practically no megalithic circles, is known only by the excavation of a stone covered tumulus in Saré-Diouldé. The final, central zone, characterized by the absence of grave deposits and distinct sepulchral practices is, in fact, a region where these different architectures overlap.

In the first half of the 20th century, a Carthaginian origin was proposed (Parker 1923), whereas other authors already associated the stone circles with the funerary practices of the 'empire' of Ghana (Palmer 1939). After the Second World War, there was no longer any doubt that such structures were indeed the work of African populations. Mauny (1961) attempted a careful comparison between the alignments of frontal stones and those of wooden stakes marking the 'altars' of ancestors among the Cogniagui people in Guinea. In Senegal, wooden stakes were also erected in front of Sereer tombs, as shown by very detailed descriptions by Becker and Martin (1982) in the same volume as reports by Gallay (Gallay *et al.* 1982) of his excavations at Mbolop Tobé, a tumulus with a frontal stone.

Since the dating of the very first sample (Ewans & Hugot 1965), 25 radiocarbon measurements have subsequently been published. Some authors (Holl & Bocoum 2017) attribute a duration of several millennia to the phenomenon; Gallay (2010) places it between the 7th and 15th centuries CE. Some 29 new radiocarbon dates obtained at the Wanar site will further refine this chronological bracket.

## 2. Large megalithic necropolises

Many Senegambian megalithic monuments are grouped together in necropolises; the ruins are very different from their original state. The widely used vocabulary describes their current appearance as follows: funerary platforms surrounded only by a dry-stone wall are known as 'stone circles'; if bordered by monoliths they are 'megalithic circles'. The only three excavated 'stone tumuli' at Saré-Diouldé (eastern zone), Tiékène-Boussoura (central zone) and Sine Ngayene II (western zone); all cover a low peripheral 'stone circle' wall.

The earthen tumulus seems to correspond to an even greater diversity of monuments, from small pits with tumular fillings, hardly perceptible in the landscape, to very large buildings of up to 9 m in height and 60 m in diameter. Gallay (2006a) has previously highlighted the peripheral position of the former in large megalithic necropolises: at Mbolop Tobé, tumulus 43 covered a double burial, probably protected under a structure of perishable material where a third body was buried in a secondary

context (Cros *et al.* 2013). At Soto, the tumulus is a large mud construction with tiered levels, built in a vast pit with a diameter of more than 25 m (cf. Delvoye *et al.*, this volume, p. 1071).

At the heart of each necropolis, a few monuments are often aligned along what could correspond to a square, or an access route. In Kodiam, where only two megalithic circles have been studied this takes the form of a monumental alley. Apart from the few previously mentioned monuments, recent excavations have concentrated on five necropolises producing data that is difficult to compare in light of the very different methods used at the successive stages of research. The interpretative grid developed at Wanar will serve here as a basis for a revision of the observations reported during previous archaeological work.

### 2.1 Tiékène-Boussoura

The Tiékène-Boussoura site is located to the far north of the central zone and was widely explored during the 1970s (Thilmans & Descamps 1974, 1975; Thilmans *et al.* 1980). Well-documented excavations were carried out using rigorous methodology at five of the nine megalithic circles listed there, as well as two of the ten stone circles and one of the six stone tumuli. Excavations undertaken during the dry season yielded very few stratigraphic observations, except in relation to megalithic circle no. 8, which indicated that the sepulchral deposits and the construction of the megalith were diachronic (Fig. 2).

### 2.2 Sine Ngayene

This necropolis is located in the basin of the small Bao Bolong (river) and contains the highest number of monuments in the whole area of Senegambian megalithism, with 52 megalithic circles and a few isolated standing stones, but also more than 115 earthen tumuli located on the periphery, over an area of about 50 ha (Holl & Bocoum 2017: 98). It was classified as a World Heritage Site in 2006. First mentioned by Captain Fargue, then described at length by Jouenne (1916: 31, 1918, 1930: 333), it was studied and excavated by Mauny (1961). In the second half of the 1970s, three megalithic circles



**Fig. 2** – ‘Megalithic Circle’ no. 4 by Tiékène Boussoura: ‘Presence, in the interior space, of denser lateritic blocks in the centre and which are practically interrupted at a depth of 60 cm. Between the monoliths, these blocks formed a low wall, and they continued in a crown outside them’ (Thilmans *et al.* 1980: 77; Photo: C. Descamps - IFAN Archives).

were also excavated by the same team that had begun work at Tiékène Boussoura (Thilmans *et al.* 1980). Four other monuments were excavated in the mid-2000s: two earthen tumuli, an isolated megalithic circle to the north of the necropolis, and the only double circle, located in the centre of the necropolis. The excavation of the latter provided a much more complex sequence than previously described, with a series of radiocarbon dates showing that it functioned during four successive phases between the 8th and 15th centuries CE (Holl & Bocoum 2014). The inner megalithic circle was thus built long after the deepest sepulchral deposits were placed. The main nuance brought since is due to the construction sequence of the two megalithic embossed circles, as the outer circle could be contemporaneous with the erection of the inner circle in the 10th or 11th century CE.

### **2.3 Santhiou Ngayene**

Also located in the basin of the Bao Bolong, the necropolis of Santhiou Ngayene – previously listed by Martin & Becker (1984) under the name of Ngayene NE – includes 18 monuments visible on the surface, including one stone tumulus, three megalithic circles and six stone circles. In addition to an isolated frontal stone, seven other monuments are

of an undetermined nature but could be additional stone circles (Holl & Bocoum 2017). In the mid-2000s, large excavations carried out on nine monuments here, over a total surface of 900 m<sup>2</sup>, yielded about 100 whole pottery vessels, most of which were deposited in front of the façades of the monuments. This is also the only site where three successive deposits of pottery on the façade can be correlated with three distinct episodes of sepulchral deposits.

Despite observations regarding earth of different colours, none of these seem to be associated with the contours of a sepulchral grave. Human bones were mainly located using an altimetric reference related to the current ground level, according to a similar method previously used by Thilmans. The deepest sepulchral levels were encountered at a depth of 1.4-2 m but the excavation of six stone circles stopped at a depth of 0.5-1 m, which is also the preserved elevation of some of the peripheral dry-stone walls. The information gathered does not illustrate the whole sequence of deeper sepulchral deposits, and the absence of funerary deposits in some of these monuments should be considered in this perspective.

The peripheral low wall of one platform with a very large diameter is rather distinct in that it has a gap and a threshold to the west.

## 2.4 Ngayene II

The necropolis of Ngayene II – also listed by Martin & Becker (1984) under the name Ngayene Ouest – consists of more than 40 monuments. It comprises two parallel complexes oriented along an east-west axis, composed of five and seven monuments (including seven megalithic circles) respectively and 27 stone circles, mainly concentrated in the southwest of the necropolis. Eight earthen tumuli are located mainly outside the necropolis. Five field campaigns were carried out from 2004 to 2007, resulting in the excavation of the 42 monuments and the extensive stripping of intermediary areas (Holl & Bocoum 2017). The study of so many monuments in such a short period led to somewhat expeditious recording methods. It is therefore very difficult to compare this work with that of Thilmans, or with work carried out elsewhere in Wanar (see below). In particular, the almost systematic affirmation of secondary bone deposits is often impossible to validate given the published data. As at Santhiou Ngayene, stratigraphic observations are relatively limited, and many monuments were only superficially or incompletely explored.

With regard to architecture, the measurements indicated for each stone circle are those of the circle resulting from the collapse of peripheral walls, which can, however, be identified from the published surveys. Two zones then stand out more clearly in this necropolis. The southern part is largely composed of small monuments with diameters of less than 5 m, while the most imposing (either in terms of their diameters or owing to the presence of monoliths) correspond to the two parallel complexes located to the north. The sequencing of these new data, combined with a revision of the contexts of sepulchral deposits, offer a totally renewed vision of the necropolis (Fig. 3).

## 2.5 Wanar

Megalithic circles represent about a quarter of the funerary monuments listed in the western zone of Senegambian megalithism, but more than half of these are centred in a small sector in the middle course of the great Bao Bolong. Research carried out in the first half of the 20th century was concentrated here, with seven monuments excavated at Dioli-

Keur-Demba-Loum, and four others at N'Diao (Jouenne 1930). The necropolis of Wanar is located on the northern bank of the river and is now classified as a World Heritage Site. However, no archaeological excavations had been carried out there before our own work began in 2005 (Laporte *et al.* 2007-2009).

Wanar consists of 21 megalithic circles; nearly two thirds of the 52 bifid stones listed in the entire area of Senegambian megalithism are found among the frontal stones. Research was systematically conducted at the end of the rainy season in order to benefit from optimal stratigraphic reading. Extensive excavations carried out on the periphery of eight monuments bordered by standing stones made it possible to locate the position of the protohistoric ground level for the first time.

Structures built in natural earth were then recognized in elevation. The collapse of monumental masses was also well marked in the stratigraphy, imparting many elements of relative chronology, sometimes even between distinct monuments. The contours of structures dug below the protohistoric ground level, such as various pits or post wedges, were also identified for the first time. For six monuments, the excavation of funerary levels in burial pits benefitted from the on-site presence of anthropologists, following an approach previously initiated in Senegal by Thilmans. The observation of sometimes complex stratigraphic sequences, and an in-depth study of architecture, objects and burial practices, has profoundly renewed our knowledge of these megaliths (Laporte *et al.* 2012).

## 3. Deferred funerary rites

Contemporary traditional funeral rites in West Africa often involve distinct phases (Sidibe 1980). The first burial phase, sometimes accompanied by an interrogation of the deceased (Delacourt 1912-13; Paulme 1954; Lestrangé 1955), does not always immediately follow death: various procedures intended to preserve the body may sometimes be implemented (Germain 1947). Sometimes, a great public celebration is organized several years after death; the songs and dances of these ceremonies have attracted the attention of foreign observers. The celebrations may, in some cases, be accom-



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Ngayene II

Min. Nb. of indiv	Primary deposits			Symbolic deposits		Secondary (?) deposits		Total/ Mon.	Total/ Type	%
	Indiv. Burial	Mult. Bur.	Dble burial	no bones	Body Red.	Small	Large			
<b>Large Stone Circles</b>								14	6 %	
Mon 20	5							5		
Mon 25	4	3						7		
Mon 24	1							1		
Mon T 05	1							1		
<b>Tumulus ?</b>								6	3 %	
Mon. T-07		3						3		
Mon. T-01	1							1		
Mon. T-02	1							1		
Mon. 32					1			1		
<b>Stone Circles (3-4m)</b>								8	4 %	
Mon. 2				0				0		
Mon. 3				0				0		
Mon. 13				0				0		
Mon. 22				0				0		
Mon. 4					1			1		
Mon 6					1			1		
Mon 7					1			1		
Mon 9					1			1		
Mon 12					1			1		
Mon 16					1			1		
Mon 1					2			2		
<b>Stone Circles (4-5m)</b>								27	12 %	
Mon 18						3		3		
Mon 21						3		3		
Mon 8						4		4		
Mon 19						5		5		
Mon 17						12		12		
<b>Meg. Cercles (type A)</b>								47	21 %	
Mon. 29	2					6		8		
Mon. 23						1		1		
Mon. 30						2		2		
Mon 26							36	36		
<b>Meg. Cercles (type B)</b>								119	54 %	
Mon 27							33	33		
Mon 31					1		35	36		
Mon 28							50	50		
<b>Total</b>	15	6	0	0	10	36	154	221	-	
<b>%</b>	7 %	3 %	-	-	5 %	16 %	70 %		100 %	

Fig. 3 – Ngayene II: seriation of the types of sepulchral deposits according to the architecture of the corresponding monuments. Only the best documented complexes have been taken into account, based on available observations (Mainly in Holl & Bocoum 2017).

panied by the sacrifice of numerous heads of cattle (Carreira 1947). Much later, other rites take place, still generally reserved for a restricted sphere. These confer on some of the deceased their status as ancestors, then as spirits or even genies (Père 2004). These rites may continue for several decades. The archaeological observations of the megaliths of Senegal and The Gambia correspond well to this overall pattern, with three sequences staggered in time consisting of sepulchral practices, the monumentalization of sites, and memorial deposits (Laporte *et al.* 2018). The very notion of a necropolis or cemetery, which in the eyes of European observers derives directly from the presence of human bones, must be treated with caution in societies where certain initiation rites are, above all, considered to be a form of rebirth for each of the individuals concerned.

The different architectures also display similar correspondences with archaeological data. In the same way as recorded for stone circles, the stone walls of traditional Bassari houses are composed of a single row of small laterite blocks <sup>(1)</sup>, held upright by internal clay plaster (Laporte, forthcoming). The floor of the room is higher than the outside ground level. The village chief's hut is generally larger than the others. In the past, it could also take the form of a traditional hut lined with an exterior colonnade that supported a conical roof made of plant materials, and which was independent from the rest of the construction. Although settlement is scattered, episodically settled, initiatory villages are organized around a large central quadrangle. Today, the houses of the dead are also sometimes built above a tomb within the village itself, either individually or in small groups, at lower elevations than the houses of the living (Fig. 4). Others are grouped together in necropolises outside the village and reserved for the highest Bassari religious dignitaries who, during their lifetime, are not characterized by any accumulation of wealth.

Similarly, frontal stones have often been compared to the wooden stakes generally implanted in the east – more rarely in the west – on the periphery of

contemporary Sereer burials (Gallay *et al.* 1982). These burials are frequently grouped together in necropolises and appear as large pits surrounded by concentric ditches, with a tumular filling that forms a slight bulge above the ground over time. The grave is sometimes placed in a recess and is often covered by the roof of the house of the deceased (Becker & Martin 1982). Ethnographic data pertaining to the Mandjak (Guinea-Bissau), Coniagui, and Bassari (Senegal and Guinea) populations indicate the existence of similar structures on the façades of burials, some of which are royal. These stakes, the bases of which are sometimes decorated with engraved grooves, materialize the spirit of the deceased and his eventual accession to the status of ancestor (Laporte *et al.* 2016).

### **3.1 Sepulchral practices**

In the western zone of Senegambian megalithism, the available information on sepulchral practices comes from about 50 monuments, compared to only ten in central and eastern zones. A small number of these have yielded the remains of many deceased individuals, corresponding cumulatively to more than half of the total of the minimum number recorded in the region. This minimum number is calculated differently by different authors, and is probably largely underestimated. It now stands at about 600 individuals, 87% of which come from the western zone. Four main types of deposits have been observed under the monumental structures.

#### ***Primary burials***

These are usually layered in the filling of the same sepulchral pit. One or more individuals are deposited, sometimes simultaneously, in a central position at the deepest part. Above this, at least one individual was then deposited in a lateral position in relation to the layout of the monument. Near the surface, above the protohistoric ground level, several probable cases of open-air exposure of corpses were also noted. In the central and eastern zones (Thilmans *et al.* 1980), single, double or multiple

(1) Sometimes strong wooden posts consolidating the construction then take the place occupied by monoliths in megalithic circles from the protohistoric period.



**Fig. 4** – a, c. ‘Altars’ of the ancestors built in the image of a small house of the dead, on the tomb of the village chief of Ethiolo, and that of his father. Some are much larger in diameter (b). The ruins correspond in all aspects to what has been described as ‘stone circles’ in terms of archaeological remains (Photos: L. Laporte (2018) (a, c) ; M. Gessain (1947) (b)].

burials account for 81% of the buried individuals, compared with 10% in the western zone (Fig. 5).

### **Body reductions**

These are secondary deposits where only a few bones, generally belonging to a single individual but sometimes two or three, and sometimes associated with metal objects, are confined in a very narrow space of a few dozen centimetres on each side, within a bag or box made of perishable material. These can also be purely symbolic deposits consisting of a few metal objects (Holl & Bocoum 2017). Such deposits are found in the centre of the monumental platform and are sometimes covered by inverted ceramics, similar to a lid placed on a funerary urn. From the beginning of the 20th century onwards, the work of Duchemin (1905) in Dialato, of Todd & Wolbach (1911) in Lamine-Koto, and also of Doke in 1931 in Ker-Alpha and de Saint-Seine in 1939 at Thiobé, report the presence of pottery collected below the centre of circles of standing stones, generally found with the opening facing downwards (Thilmans *et al.* 1980: 25) as, for example, at Sine-Ngayene II (Holl & Bocoum 2014: 91). Other deposits complete the filling of sepulchral pits or correspond to secondary deposits below the small mud construction that



**Fig. 5** – Tiékène-Boussoura no. 8: plan of the monument and the two burials: a central and a ‘peripheral’ deposit (After Thilmans & Descamps 1975).

ultimately seals these pits at Wanar (Cros *et al.* forthcoming). Based on current sampling, when human bones are present they correspond to less than 7% of the buried individuals.

We distinguished two other types of deposits, both of which were contained within an area – often marked by earth of a slightly different colour – with a diameter of 1 to 2 m, about the size of a bassinets, in perishable material. The latter could have been deposited on the bottom or at different levels of the filling of the sepulchral grave. In the western zone of Senegambian megalithism, 86% of buried individuals come from such contexts. Further east, this is only illustrated by the deepest deposit found under monument 1 of Sarré-Diouldé.

### **Other secondary deposits of bones**

These comprise mainly long bones and skulls corresponding to ten individuals at most (Fig. 6). In view of the relatively small number of bones concerned, and their dispersal over what can be a large area, their identification as secondary bone deposits often leaves a degree of doubt, regardless of their state of conservation, the care taken in unearthing each of them, or the recording grid used. All six of the megalithic monuments excavated at Wanar contained deposits of this type. At Sine Ngayene II, however, as at Santhiou Ngayene where the number of individuals (of skulls) is very low, there are rare cases where the existence of multiple burials cannot be totally ruled out on the basis of published data alone.

### **‘Piles’ of human bones**

These sometimes contain the remains of several dozen or even up to 50 individuals within a cylindrical zone, also with a diameter of 1 to 2 m, several tens of centimetres high. It is not always easy to distinguish between differential conservation, reworking in the tomb, or the selection of secondarily deposited bones. Depending on the case, the authors interpreted these deposits either as multiple burials of very large numbers of individuals (Thilmans *et al.* 1980), or as exclusively secondary deposits (Holl & Bocoum 2017). In fact, we were also able observe body parts with anatomically



**Fig. 6** – Secondary burials in the first sepulchral pit (pit 1) of monument XX in Wanar (Photo: S. Djouad).

connecting elements, or even whole bodies, or subsequently rearranged body parts. We thus suggest that these could just as easily be collective burials where the container(s) – made of perishable materials – would be the true ‘burial chamber’, secondarily moved into the grave (Laporte & Bocoum 2019).

The funerary goods associated with each of these types of burial contexts are only represented in the western zone. These are mainly iron weapons and ornamental objects. Among the weapons were more than 160 spearheads, sometimes compared to the specimens from the shell midden of Diorom Boumak in the Saloum delta (Thilmans *et al.* 1980: 150), a few arrowheads and very rare sword blades, all made of a ferrous alloy. The number of weapons deposited in the tomb cannot be strictly correlated to the number of buried individuals. Most of the spearheads were bent on the blade or on the socket, suggesting that the object was not functional. A few finely worked spearheads display a surface entirely covered with concentric ring decorations. The tip is framed by a double tail, each ending in a barb. More

rarely, the spearhead had only one barb. Textile impressions have been observed on some corroded surfaces (Delvoye *et al.*, forthcoming).

Ornamental objects are represented by fewer than 100 bracelets and rings mainly made of copper or ferrous alloys, sometimes found in an anatomical position on the arm, fingers, or ankles of the deceased. A pewter bracelet was discovered in the sepulchral grave of monument XIV in Wanar. Bracelets vary in size, and are sometimes decorated with incisions, or twisted, grooved or fluted. Yellow brass bracelets are rarely found alongside red bracelets made of pure copper or iron (Garenne-Marot 2007). An iron bell was found near the remains of a dog in circle 28 of Sine Ngayene (Thilmans *et al.* 1980: 68), and others were recorded at the ankles of the individual buried under mound T-01 of this necropolis. Approximately 20 glass beads, and a few others in cornelian, metal or terracotta, were also collected. The only gold beads come from Wanar, where they recall other specimens from the shell midden burial heaps of Saloum

(Delvoye *et al.* forthcoming). Conversely, a fragment of an *Anadara senilis* shell, a coastal mollusc, was found in monument 17 at Kodiam, about 200 km inland (Thilmans *et al.* 1980), and a *Conus conus* shell was recovered in monument 52 at Sine Ngayene (Holl & Bocoum 2017).

We only have access to reliable information about the types of burial pits at the Wanar necropolis (Laporte *et al.* 2012), apart from occasional observations at Santhiou Ngayene and Sine Ngayene II (Holl & Bocoum 2017). These are most often silo-shaped pits, 1.30-1.60 m deep, with a diameter ranging between 1 and 1.50 m at the top, and wider at the bottom (1.80-2.70 m). They are generally excavated from the protohistoric ground level downwards, to below the current ground level. At Wanar, the bottom of the pit is 1.80-2.50 m deep, if we use measurements comparable to those proposed by Thilmans and Holl.

After they were filled in, but before the construction of the megalithic monument, the location of the tomb was first marked by a quadrangular platform, 2-3 m wide, made of mud bricks and generally

conserved up to a height of several dozen centimetres. The exact location of the tomb underlying monument XIX at Wanar seems to have been somewhat forgotten, before a circle of standing stones was erected, slightly to the south. Similar observations were also reported for the inner circle of monument 27 at Sine Ngayene (Holl *et al.* 2007). There are other circumstances where the monument may never have been built.

### 3.2 Circular monuments built over the tomb

The monumentality of the edifice built above the tomb is expressed by the external diameter of the circular platform and by the presence or absence of contiguous or interposed monoliths in a dry-stone wall delimiting the circumference of the construction (Fig. 7). The diameter of the circular buildings associated with Senegambian megalithism varies between 2 and 12 m (Martin & Becker 1984). The smallest, with an external diameter of less than 4 m, represent 22% of the stone circles and 29% of the megalithic circles, while the largest, with a diameter of more than 6 m, account for 24% of the former



**Fig. 7** – Proposed reconstruction of monument XIV of the Wanar necropolis (Photo: L. Laporte).

and 29% of the latter <sup>(2)</sup>. However, only 12% of the megalithic circles in the western zone have a large diameter as opposed to 77% in territories further east. The large megalithic circles include 14 monuments consisting of two concentric circles. There is only ever one such monument per necropolis.

The monoliths arranged on the chord of each megalithic circle have different dimensions depending on the shape of their cross-section: those with a square cross-section measure on average 45 x 41 cm; those with rectangular cross-sections measure 74 x 44 cm; those with trapezoidal sections measure 83 x 53 cm. This distinction overlaps the groups defined by Thimans and Descamps, in Sine-Ngayene, where three types of megalithic circles were identified: narrow and slender monoliths (type A), short and thickset monoliths (type B), or 'intermediate' dimensions (type C) (Thimans *et al.* 1980). This same distinction is observed in Wanar where, with one exception, all the monuments with short and thickset monoliths are located to the north of the necropolis, while those with narrow and slender monoliths are arranged in the south around a square area. The façades of the monuments with contiguous narrow and elongated monoliths contain the largest number of blocks, while those with short and thickset monoliths required much greater efforts because of the weight of the transported raw materials. In all cases, "*an 'entrance' is frequently visible towards the west or northwest, notably materialized by a stone with a specific shape, sometimes lying along an east to west axis and forming a threshold*" (Becker & Martin, forthcoming).

In the western zone, about 50 monuments allow for comparisons between the architecture of the elevated structures with underlying sepulchral deposits (Fig. 8).

### ***Small constructions with diameters of 3-4 m***

These are exclusively surrounded by a dry-stone wall (11 examples) and attest to the symbolic deposition

of metallic objects and/or some human bones, sometimes covered by overturned ceramics. The excavated constructions of this type are all from the southwestern sector of the necropolis of Ngayene II, although they represent nearly a quarter of the number of 'tombs' inventoried by Becker and Martin in the whole area of Senegambian megalithism.

### ***Constructions with diameters of 4-5 m***

These are by far the most numerous. We can distinguish between those surrounded only by dry-stone walls (six examples) and those also comprising erected blocks, which can be subdivided into type A (ten examples) and type B monuments (ten examples). Type B account for more than three-quarters of the individuals buried under the megalithic circles in the western zone. Type A megalithic circles or stone circles generally only overlie secondary deposits with more limited numbers of remains. Small assemblages similar to those described under small-diameter platforms sometimes appear to have been deposited in a second stage, often in a shallower pit.

### ***Large platforms of more than 6 m in diameter***

These cover individual or multiple burials (two or three individuals) and are often layered, sometimes with one individual in a peripheral position in the upper levels (in six cases). This latter configuration is also observed at Tiékène Boussoura, in the central zone of Senegambian megalithism, regardless of the size and architecture of the corresponding monuments. They are distinguished from the burials identified in the western zone by the absence of any accompanying goods. At Ngayene II, as at Santhiou Ngayene, only one of these very large monuments (7 and 11 m in diameter) displays an 'entrance' to the west (Holl & Bocoum 2017) <sup>(3)</sup>.

(2) The majority of these structures therefore have an external diameter of about 4-5m, which today also corresponds to the dimensions of traditional Bassari houses.

(3) Among the Bassari, in eastern Senegal, the presence of a door is indeed what seems to distinguish houses intended for the living from those built on graves for the deceased. The idea that some bodies were first deposited on the floor of a house before being buried [which corresponds in particular to the term 'interim burial' proposed by Holl (Holl & Bocoum 2017)] therefore seems plausible, in agreement with many ethnographic testimonies, for example in Forest Guinea, Sierra Leone or Liberia. Like the equally large 'double circles', such buildings always seem to represent only a single individual in any necropolis.

Min. Nb. of Individ	Individual or Multiple Burials			Body Red.	Bone "Piles"		Total/ Mon.	Total/ Site or zone	%
	Indiv. Burial	Mult. Bur.	Other burial		Small	Large			
<b>OCCIDENTAL ZONE</b>	<b>31</b>	<b>17</b>	<b>4</b>	<b>40</b>	<b>82</b>	<b>317</b>	<b>0</b>	<b>489</b>	<b>87%</b>
Sine Ngayene II	15	6	0	11	33	154		219	45%
Santhiou Kohel	1	2	2					3	
Burial Pit								3	
Mon. 43	1	2	2				3		
Sine Ngayene	6	7	2	5	3	117		138	24%
Earthen mounds								2	
Mon. T-01	1								
Mon. T-02	1								
Meg. Circles (type A)								15	
Mon. 32	3	7	2						
Mon. 52	1			1	3				
Meg. Circles (type B)								121	
Mon. 27				4		30			
Mon. 25						28			
Mon. 28						59			
Santhiou Ngayene	3	2	2	4	12	40		69	14%
Large Stone Circles								3	
Mon. 8	-	-		1			-		
Mon. 6	-	-		2			-		
Stone Circles (4-5m)								7	
Mon. 5	1			1	5		7		
Meg. Circles								53	
Mon. 4	1				7		4		
Mon. 2	1					25	26		
Mon. 3		2	2			21	23		
Wanar	6			20	34			60	12%
Meg. Circles (type A)	3			3	22			28	
Mon. I				3	7		10		
Mon. II	3				8				
Mon. XIX					7		7		
Meg. Circles (type B)				7	12			19	
Mon. XIV				1	5		5		
Mon. XX				6	7		13		
%	6%	3%		8%	17%	65%			
<b>CENTRAL ZONE</b>	<b>15</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>19</b>	<b>3%</b>
Tiékéne Boussoura	15	2	2					17	
Large Stone Circles								4	
Mon. 18	1						1		
Mon. 19	1						1		
Mon. 10	2						2		
Meg. Circles								13	
Mon. 1	1						1		
Mon. 4	2						2		
Mon. 6	2						2		
Mon. 8	2						2		
Mon. 9	4	2	2				6		
Kodiam		2	2					2	
Meg. Circles								2	
Mon. 17		2	2				2		
<b>ORIENTAL ZONE</b>	<b>26</b>	<b>19</b>	<b>12</b>	<b>0</b>	<b>11</b>	<b>0</b>		<b>56</b>	<b>10%</b>
Sarré Diouldé	26	19	12		11			56	
Large Stone Circle									
Mon. 1	26	19	12		11		56		
<b>TOTAL</b>	<b>41</b>	<b>23</b>	<b>14</b>	<b>0</b>	<b>11</b>	<b>0</b>		<b>75</b>	
Centr. / Or. Zones	55%	31%		0%	15%	0%			
<b>TOTAL</b>	<b>72</b>	<b>40</b>	<b>20</b>	<b>40</b>	<b>93</b>	<b>317</b>		<b>564</b>	
	13%	7%		7%	16%	56%			

Fig. 8 – Minimum number of individuals buried per necropolis and per type of monument.



### **Earthen ‘tumuli’**

This often rather ambiguously used term includes sepulchral deposits similar to the previous examples, which were often discovered due to the presence of frontal stones located a few metres further east. In the absence of a visible mound, we cannot rule out the possibility that some burial platforms were never built (three cases). Conversely, two monuments excavated at Santhiou Kohel (Gallay *et al.* 1982) and Soto (Delvoye *et al.*, this volume, p. 1071) are circumscribed by a wide belt of peripheral ditches, the result of multiple successive excavations. We will reserve the term ‘tumuli’ for this type of monument (four examples). Two other open-ground graves in Sine Ngayene are distinguished by the type and abundance of the associated funerary goods (Holl & Bocoum 2014).

### **3.3 Frontal stones and commemorative practices**

The eastern façade of circular monuments has attracted the attention of many researchers, as it frequently conceals one or more standing stones, as well as important pottery deposits (in the western zone at least). The 14000 frontal stones arranged on the façades of monuments or in seemingly isolated localities represent a number equivalent to the total of all the standing stones constituting megalithic circles (Martin & Becker 1984). The former are generally taller and more massive than the latter. Conversely, the frontal stones associated with most of the small stone circles at Ngayene II are smaller in size and sometimes have a tapered appearance similar to many others in the eastern zone. Two to three parallel frontal lines have been identified at 35 sites, 20 of which are located in the Ninja Bolon basin.

At Wanar, in the middle reaches of the great Bao Bolon, frontal stones associated with platforms bounded by short, thickset monoliths are surrounded by a lateritic gravel floor (Laporte *et al.* 2012), over an area with a diameter of 2-3 m; they could perhaps be compared with those excavated near a small isolated standing stone at Sine Ngayene (Holl & Bocoum 2017). In Wanar at least, the areas of gravel around several monoliths in the same alignment overlap, suggesting that the construction of each of these monoliths was diachronic. The

alignments with several bifid stones form particularly striking complexes, which Jouenne interpreted as a mark of solar worship. He suggested that these arrangements would have been built towards the end of the rainy season, after the harvests, during a prosperous period when the granaries were full and particularly favourable to collective celebrations (Jouenne 1918: 67).

Thirty out of the 47 listed bifid stones are V-shaped or ‘lyre stones’, associated with at least 29 monuments and 22 distinct sites. All are located in the central and western areas of Senegambian megalithism. Thirteen of the bifid stones appear to be isolated, and at least ten others are arranged in joined pairs (YY). Three other stones are each positioned at the end of a row of cylindrical monoliths (YIIII), six are in the symmetrical centre of a structure that also includes one or two cylindrical monoliths (IYYI). These three types of structures seem to form the elementary building blocks of more complex sequences (Laporte *et al.* 2016). At Diam-Diam, two distinct segments (IYI / IIII Y IIII) are visible in the frontal line of megalithic circle no. 1. The base of the lyre stone in the second segment bears a disc engraved in the round (Fig. 9),



**Fig. 9** – Lyre Stone presenting an engraved disc at Diam-Diam (Photo: R. Mauny - IFAN Archives, ref. C56 205).

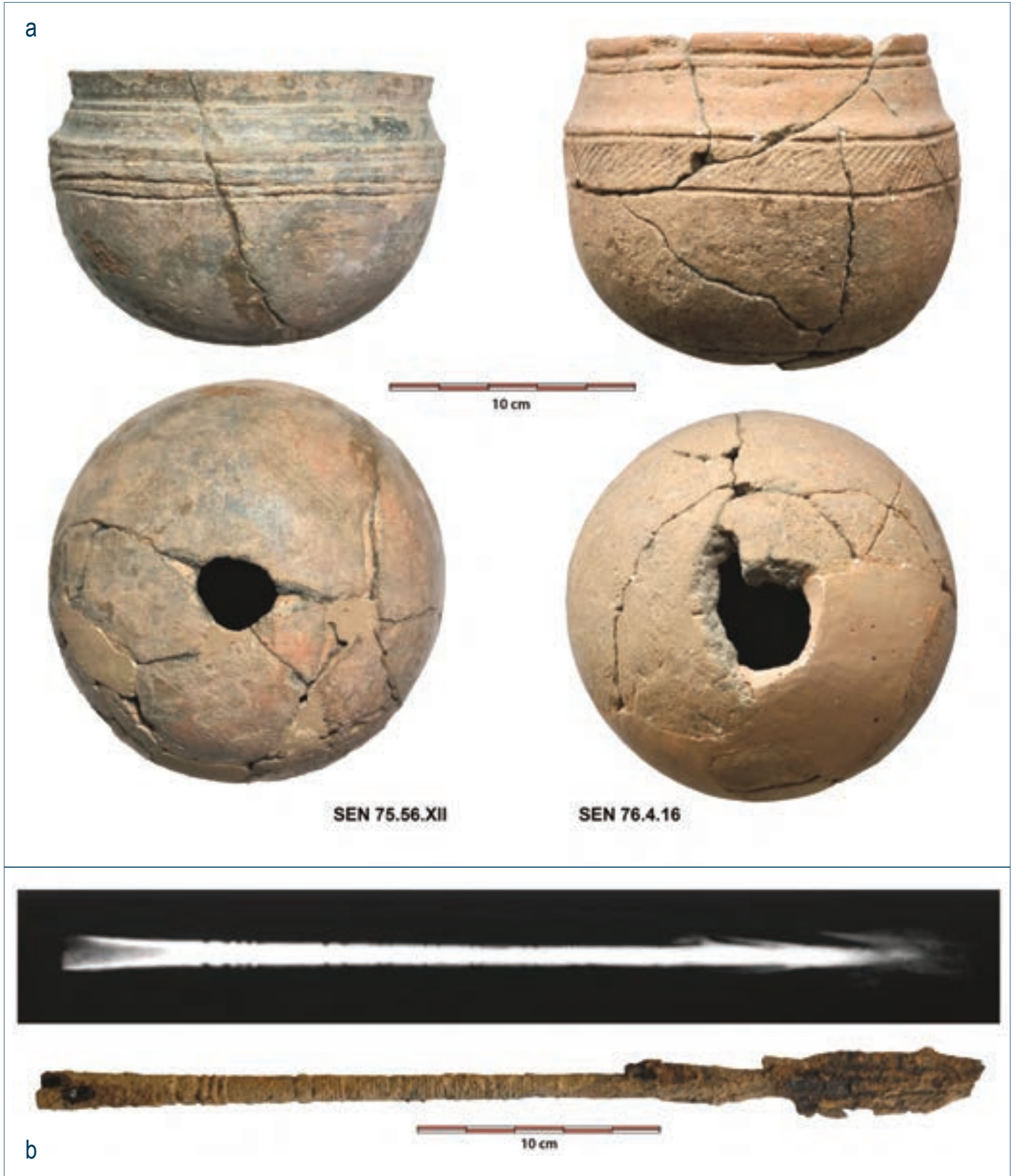
as is also the case for the base of a cylindrical monolith erected at the front of monument no. 27 at Sine Ngayene (Holl & Bocoum 2014: Fig. 34). This motif has sometimes been compared to the gold disc discovered at Rao (Joire & Duchemin 1955) in northern Senegal, which is dated by its funerary context to around 1300 CE (Fauvelle-Aymar 2013: 114). Many more monoliths have either a small 'disc' or 'knob' protrusion at the top or, conversely, a depression, or 'cupula', like tenons and mortises, and have a mutually exclusive distributed on each site (Martin & Becker 1984).

The only lyre stone quarry studied is 300 m from the Wanar necropolis (Laporte *et al.* 2012). The traces of stones removed indicate that they were the short, thickset monoliths, erected on the façades of the circular monuments in the northern part of the necropolis. Under the surface layer at the quarry, adjoining depressions were unearthed, corresponding to some 150 monoliths; 145 stones were erected on the façades of type B monuments. On the other hand, one of the quarries identified for the Sine Ngayene necropolis yielded the traces of the removal of about 50 narrow and elongated monoliths (Thilmans *et al.* 1980; Holl & Bocoum 2017). Only about ten quarries have been inventoried, mainly in the western zone, but also at Wassu where the first archaeological experiments in quarrying were carried out (Beale 1966: 9). After hammering to equalize the upper, hardened part of the lateritic outcrop, some of the natural cracks were widened with metal wedges. A groove was deepened to mark the outline of each block using an elongated narrow-bladed tool, the marks of which are also visible on many standing monoliths. The area below the boulder was then carved out, and it was freed from the bedrock by levering it against the quarry walls. In Wanar, four regularly spaced perforations in some walls suggest mechanized lifting operations. Boulders abandoned during transport were identified at Santhiou Kohel (Gallay *et al.* 1982: 221) and at Kerewan Duto (Martin & Becker 1984). The much more irregular extraction face was then positioned towards the interior of the megalithic circle. Frontal monoliths were worked on all sides; the surfaces may have been regularized by bush hammering.

Numerous whole pottery vessels were found overturned on the ground – often with pierced bases –

between the frontal stones and the eastern façade of circular monuments, and sometimes in the form of successive deposits on the ground level contemporaneous with the erection of the monument, or above the spreads marking the architectural ruins (Fig. 10). Some specimens found in the centre of the architecture were clearly dissociated from the sepulchral areas. These deposits appear to be the remains of commemorative practices (Delvoye *et al.* 2011). Vessels with carinated shoulders were predominant, always accompanied by other vessels such as cups and some bowls. By contrast, jars and cylindrical-bellied vases were often found in peripheral deposits. The most common decorations were roulette patterns, fluted or incised lines, and the application of red engobe. Roulette-printed band decorations, framed by parallel grooves, were associated only with vessels with a carinated shoulder, whereas many cups had parallel fluted decorations (Delvoye *et al.* 2011). In Wanar, the numerous deposits of small vases, bowls, and goblets with carinated shoulders, decorated with parallel flutes or printed bands, were mainly associated with those monuments having short, thickset monoliths. The less abundant deposits in monuments with narrow, elongated monoliths, were more likely to be found inside large pottery vessels with very pronounced carination, the edges of which fit over the mouths of large jars decorated with a roulette wheel of folded flat fibres. Their function as lids would have diminished in the upper levels where small vessels had a vertical, elongated neck (Delvoye *et al.* 2011). These typo-functional evolutions are also accompanied by major technical changes (Delvoye *et al.* 2016) and contribute to the ceramic seriation for the whole area of Senegambian megalithism (Delvoye 2018, forthcoming; Delvoye *et al.*, forthcoming), clarifying and enriching the schema proposed by Gallay (2010).

Numerous structures were also discovered between the funerary monuments. These included large vessels arranged in an inverted position, small 'sock'-shaped pits with no deposits, deep pits with whole vessels, and quadrangular mud brick platforms similar to those that capped the openings of sepulchral pits. A shaft excavated west of Monument II in the Wanar necropolis is one of the oldest structures on this site. On the periphery of the necropolis, the post-holes of a construction were identified, while



**Fig. 10** – Funerary goods: a. Examples of basal perforations on pottery deposits from the Sine-Ngayene necropolis (Excavations: G. Thilmans; photos: A. Delvoye); b. Radiograph of a double-tailed spearhead from monument XIX of the Wanar necropolis (Arc’Antique. Study: S. Lemoine; photos: J.-G. Aubert).

at Ngayene II, a ruby-coloured soil with a 2 m diameter, covered with mud bricks was unearthed (Holl & Bocoum 2017). Numerous fragments of mud walls and ruby-coloured mud bricks were also collected in the tumulus fill of some of the monuments, especially in Wanar. These elements, as well as the abundant ceramic elements scattered in the former floor, raise questions about the presence of early settlements, as at Tiékène-Boussoura (Thilmans *et al.* 1980). The only domestic structure excavated was a small hearth, associated with a scattering of pottery objects that was exposed on the edge of a gully near the necropolis of Ngayene II. The collected charcoal yielded a date from the 14th century CE (Holl & Bocoum 2017).

#### 4. Towards the construction of historical scenarios

Surprisingly, neither the accounts of Arab travellers from the 9th century CE onwards, nor those of the first European navigators from the middle of the 15th century, mention the existence of megalithic monuments. Nonetheless, these same monuments capture the imagination of our contemporaries. Those who live near them tell us only that they were erected by their predecessors. Archaeology thus seems to be the sole source of available information to lift the veil on these past populations. About 50 radiocarbon dates are available, most of which are from charcoal; only two directly date human

bones. In the absence of stratigraphic observations, the contextualization of these samples is often problematic and in the past the dates obtained were often applied to the whole megalithic structure, independently of the specific history. About ten radiocarbon dates from samples collected from under the megalithic monuments are from the first half of the 1st millennium of our era, and from previous millennia, but it is not always being possible to distinguish those resulting from previous human settlement or natural fires. The earliest dates related to burial activity correspond to individual or double burials with no megalithic structures, from the 7th century CE onwards.

The construction of the megaliths may not have begun before the 11th century CE and may not have lasted much longer than 200 years, at least for circular platforms bordered by standing blocks (Fig. 11). Those with narrow, elongated monoliths appear to be somewhat older than those surrounded by short, thickset monoliths. None seems to have been built after the middle of the 13th century CE. However, we cannot rule out the possibility that other monumental forms, where the frontal stones are the only truly megalithic element, may be slightly more recent. In the western zone, at Ngayene II or Santhiou Ngayene, later interventions are systematically marked by the use of fire, dated at Wanar to the 15th and 16th centuries CE. At the micro-regional scale, coring carried out in the middle course of the Bao Bolong and its tributaries, near

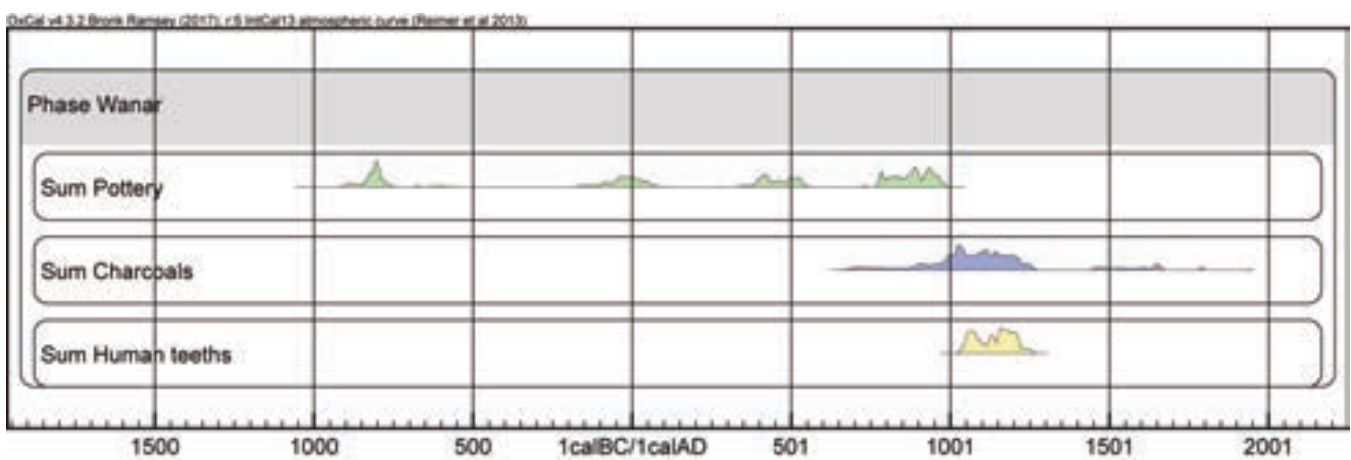


Fig. 11 – Of 29 radiocarbon dates on samples taken at the Wanar site, the only two dates on human bones are from the 11th and 12th centuries CE.

the Wanar and Ndiao necropolises, shows significant variability in hydro-sedimentary dynamics. High sedimentation rates over the past two millennia reflect marked slope instability, probably due to the combined effect of climatic variations and the anthropization of plant cover in the watershed, particularly by fires. On the other hand, more localized incision phases truncate the sedimentary sequences, perhaps reflecting the increased influence of human activities in this sector, first between the 7th and 9th centuries CE, then between the 11th and 13th centuries, and finally around the 14th and 15th centuries (Stern *et al.* 2019).

The period between the 7th and 13th centuries corresponds to the chronology generally attributed by historians to the 'empire' of Ghana, a little further north. In the 13th century, this was followed by the 'empire' of Mali, with a geographical extension covering the area attributed to Senegambian megalithism. According to the same historical sources, the Sereer may have been populations of Sahelian origin who arrived in the 11th century CE and adopted some of the funerary traditions of their predecessors (Gallay, forthcoming). In the oral traditions of the Bassari and Cogniagui, whose Tenda languages are distinct from all others in the region, they sometimes claim to belong to 'kingdoms' defeated by Sundjata, whose epic is considered to be one of the founding myths of the 'empire' of Mali (Boulègue 2013; Fauvel-Aymar 2013). Whilst acknowledging the excesses resulting from the desire of a contemporary group to appropriate a prestigious past, it seems legitimate to attempt to compare archaeological data with those from historical approaches or general anthropological theories that also attempt to synthesize the many ethnographic observations from the 20th century.

An essay by Gallay (2006b) makes an immense contribution by attempting, for the first time, such a synthesis on a wide scale, based on the theory of general anthropology proposed by Testart (2005). Several articles subsequently attempt to develop a historical scenario, on the scale of West Africa, taking into account the implications of the organization of societies (Gallay 2011, 2013). The interpretation proposed by Testart is then nuanced to introduce the concept of African lineage societies (Gallay 2015). Testart's African detractors, however,

criticize him for not considering sufficiently the diversity of oral traditions. However, the collection of these traditions is far from complete and other narratives remain inaccessible to scientific approaches as they are formulated in languages that only high-ranking initiates are able to decipher, even today (Faye 1997; Diouf 2016). The fact remains, nevertheless, that there is huge unexploited potential here, just as there is for many ancient texts written in Arabic. The theory proposed by Gallay undoubtedly contains a number of biases and shortcuts but cannot be reproached for its coherence or considerable erudition. In particular, it is based on a revision of the data that Thilmans interpreted as evidence of human sacrifice, and which Testart associates with his concept of 'accompanying deaths'. It is unusual for a society to simultaneously inhumate several individuals in the same grave, except in the case of ritualized human sacrifices, or when an important person is accompanied in the grave by members of his family, or his entourage. In the latter case, there is no offering or sacrifice to a higher power, but a certain continuity beyond death with what existed during the lifetime of the deceased (Testart 2004: 31). However, the absence of the most characteristic feature of such burials, (i.e., important figures buried with their entourage) among the archaeological data from Senegambian megalithism prompts us to limit this hypothesis (Cros *et al.* 2013). In the western zone, multiple burials represent barely 3% of the minimum number of individuals buried. This does not take into account the observations made in the 1970s at several sites in the central and eastern zones, for ten monuments at most, which have not since been confirmed.

It is important to bear in mind that the builders of the megaliths had domesticated the dog, and practised metallurgy, and perhaps also agriculture and animal husbandry despite the absence of direct evidence, that they lived in lineage societies with age classes, and most probably had an 'animist' religion, as is frequent in West Africa. For Gallay (2015), this represented the source of a warlike despotism motivated by increased competition from segmented, semi-state societies in search of large numbers of slaves. The latter observation, however, was based on the presence of accompanying deceased in the graves. In addition to the observations made in the central zone, which would merit extension

and updating, the main supporting argument here concerns the deplorable state of the dentition of about 40 individuals whose corpses were deposited directly under the stone carapace that seals the tomb of Sarré-Diouldé <sup>(4)</sup>. As regards the contemporary traditional societies previously quoted for comparative purposes, Nolan also describes the Bassari society as ‘military’, directed by a ‘gerontocracy’ of ‘priests’ rather than by village chiefs, with ostentatious attributes but whose powers remain, all in all, very limited. The very large number of weapons among the funerary goods collected in the sepulchral zones underlying the megaliths of Senegal and Gambia also points in this direction.

## 5. Conclusion

The megaliths of Senegal and Gambia are often presented as the fruit of a vanished civilization, yet they are gradually finding a place in the history of research that they have never abandoned on African soil. Some would like to view them as ancient monuments, perhaps from the beginning of our own era, and consider them as proof of the resilience of populations martyred by European colonization. Others highlight the links binding them to a

much more recent history, documented mainly for Sahelian zones, and view them as the starting point of a rich trans-Saharan trade. An update of the available data tends to point towards a grey area, from both a geographical and chronological perspective, about halfway between these two opposing theories. References are now also directed towards societies and populations living in southern forested areas and towards a contemporaneous period of an ancient Ghanaian ‘empire’ with extremely blurred contours and historical foundations. Nevertheless, all seem to agree on the extent of the upheavals that may have taken place during the 11th century CE, perhaps linked at least indirectly to the southward thrust of the Almoravid incursions and well before the emergence of a vast ‘empire’ in Mali during the 13th century CE. It is in this context that certain populations would have begun to build the monumental stone tombs between Saloum and Gambia, which still mark the landscape of the Senegalese landscape today. But much remains to be done to expand our knowledge of the subject.

Translated from French  
by Louise Byrne

(4) In this study, Khayat also focused on a few individuals presenting dental mutilation, including pointed incisors, which are common in contemporary populations such as the Diola, Mandjak and Bassari, among others in Africa (Thilmans *et al.* 1980: 132).