

The Use of Animals in Birth Protection Rituals and Possible Uses of Stone Figurines from the Central Sahel

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all photos by the author, except where otherwise noted

This article will use fresh ethnographic testimony from the Sahel concerning the role of animals as spiritual protectors during births to advance an hypothesis that figurines in several groups of stone sculptures from the south-central Sahara or the adjacent Sahel may have been used in historic, protohistoric, and even, in the case of one group (IV), prehistoric times as birthing amulets. It will also try to answer questions about the true origins of the deracinated artifacts, which have been sold with vague or even misleading proveniences by dealers in Europe and Africa (Cotter 2012). The purpose of this effort is to give researchers, institutions, and governments a better idea of where illicit excavations might be taking place, so they can refine their efforts to find the sculptures' sources. Unless this is done with considerable urgency, the sites where the figurines are coming from will almost certainly be thoroughly pillaged, robbing both the sculptures and everything associated with them of their proper place in African history.

DETERMINING THE AGES AND ORIGINS OF GROUPS I AND II

The recent appearance of numerous anthropomorphic and zoomorphic figurines in museum catalogs (Cohen 2008:26, Leloup 2011:350) and sales literature (Levy 2006, Darteville 2006, Casanova and Casanova 2009) with descriptions indicating that they are Neolithic and were found in the Azawagh Valley on the border of Mali and Niger led to an effort to verify their age and proveniences (Caldwell 2013a). This investigation first led to Burkina Faso, where at least one figurine was found, rather than the Sahara. This quartzite sculpture of a bovid (Fig. 1) has three pairs of knobs along the bottom, which may represent front and back legs with appendages hanging between them. The head is as strange as the three pairs of "legs," since the

top and bottom are divided, making it look like the figurine has two merged heads—one a bit bigger than the other—although the heads have been designed to be seen as one from the sides. This asymmetry extends to the whole body, since the side with the bigger half-head is slightly more massive than the other and even has longer basal appendages, suggesting that the differences between the two sides express the sexual dimorphism of male and female cattle in a single entity. If this interpretation is correct, then the appendages between the four legs of the "double-bovine" with site data may be read as a penis from one side and udder from the other.

The iconography of the figurine, which is the sole piece in Group I of the "central sub-Saharan canon" (CSSC), as I shall call the entire assemblage, is intriguing because of:

- the use of a hermaphroditic bovine as a "symbol of the universe" in Peul (Fulbe, also known as Fulani) mythology (Hampaté Bâ and Dieterlen 1966:146),
- a debate over possible relationships between Peul mythology involving cattle and ancient works of art (Fouilleux 2007:180–82), and
- the existence of numerous Saharan petroglyphs showing variations on the theme of merged or double animals (Le Quellec 1993a & b:99–122).

In March 2003, the sculpture was traced back from a bead merchant in Djibo in the Yatenga region of Burkina Faso to an itinerant animal dealer, who had, in turn, bought it from a woman named Aissatou Dicko from the hamlet of Binguèl Dafèdji (Lat. 14°31'7" N; Long. 0°53'33" W) (Messili and Maurel 2004), which is 91 km northeast of Djibo. It is interesting to note, in passing, that Binguèl Dafèdji—where the woman's son, a shepherd, found the figurine on the surface of a pasture—means "child born of the Earth" in Peul. The exactitude of this provenience is partic-



1 A quartzite figurine with an asymmetrically divided body and head from Binguèl Dafèdji in Burkina Faso (Lat. 14°31'7" N; Long. 0°53'33" W). 6.8 cm H x 11.4 cm L x 5.5 cm W. This figurine constitutes the entirety of Group I in the southern corpus. Private collection.

ularly important because the sculpture would almost certainly have been described as coming from the Sahara, like so many other figurines that arrived in Europe via merchants in Niamey, if it had appeared without contextual evidence, since it is similar to a bovine sculpture with a somewhat split head illustrated in Eckhard Klenkler's second volume on "Saharan" artifacts (2003:128, 194–95).

The figurine whose location comes closest to the fused bovid from Binguèl Dafèdji is a grayish-brown anthropomorph with a matte patina (Fig. 2N), which was first seen approximately 25 km to the southwest of the same Djibo in Burkina Faso, before appearing again at a merchant's in Niamey. What makes this so intriguing is that the "Djibo" figurine, as I shall call this second sculpture, is the same shape as a figurine sold by Pierre Darteville to the Barbier-Mueller Museum (Cohen 2008:26, inv. 1000–59), which has been described as coming from the "Azouarwak valley" (Cohen 2008:26) in the south-central Sahara. This museum's example is made of the same stone—green amphibolite—as most of the other figurines in Group II (Figs. 2A–G, K–L, P–U, W–X; 3A–G, J, L–O), which is a catch-all for all but four (those in Groups I and IV) of the first figurines to appear in the CSSC, since they share many lithic and stylistic resemblances and were almost always ascribed to the Azawagh.

There are three more reasons why reports placing the two figurines near Djibo are so intriguing. The first is that the Dogon used to live in the surrounding region, which is called the Yatenga (Marchal 1978:462–63, Zahan 1961:12, 20) (Fig. 4), before they fled to the Bandiagara Plateau, which is only about 160 km away. The second is that a kneeling ceramic figure with the same stance as the Barbier-Mueller and Djibo figurines was found in the Yatenga as well. This 11.3 cm tall, male, terracotta figure, which is comparable to ones from Djenne, was dated by thermoluminescence to the period between 654 and 1086 CE (based on 1080 BP ± 20% BP, ASA No. 231036-TL307151:) (Fig. 2O). And the third is that other stone anthropomorphs have been found in Burkina Faso, which have been loosely associated with a Mossi (Nyonyose) sculptural tradition in the fifteenth century (Phillips 2004:514–15).

The investigation also led to the realization that at least two of the zoomorphs in Group II have a hump and long neck like dromedaries (Fig. 3J–K), even though they are typical of all the other statuettes in the group in their size, materials, patinas, manufacturing marks, and even style. There may even be a third dromedary in the group, since Fig. 3L has a hump, too. The oldest sign of camels in Africa is a calibrated radiocarbon date of 1295 to 832 cal BCE for their dung from Qasr Ibrim, in Lower Nubia (Rowley-Conwy 1988). The oldest indications of dromedaries in Niger, on the other hand, only date to 41 cal BCE–47 cal CE (Le Quellec 2006). Even if one admits that camels may have reached the area encompassing Niger, the Azawagh, and Yatenga some years before that, the camel figurines and their group (II)—not to mention Group III, which overlaps its corpus iconographically (Caldwell 2013a)—may have been made within the last two millennia.

DETERMINING THE AGE AND ORIGINS OF GROUP III

The next pieces of information concerning proveniences involve the entirety of Group III (Figs. 5, 3Q). This group—in which I have placed all thirty figurines acquired by a single owner from one seller (Figs. 5A–V, X–Y; 3Q), another one that the same collector obtained from a second source (Fig. 5W), and a final specimen that appeared in a *New York Times* article about the imperiled archaeological legacy of central Mali (Cotter 2012:1)—shares a family likeness with the dark hardstone statuettes in Group II (Caldwell 2013a). The association of figurines in Group III with a zone encompassing Mopti and the Bandiagara Plateau is supported by the fact that the owner of the thirty-one examples told the author, before the appearance of Cotter's article, that that is where his pieces came from. The link between Group III and an area associated with the Dogon-Djenné iconographic complex reinforces the possibility that the figurines in Groups I and II from the Yatenga, where the Dogon used to live,



2 A sampling of the anthropomorphic figurines in Group II of the CSSC, plus a terracotta specimen (O). The only figurine in Group II for which there is an eyewitness report placing it in a specific region is N, which was first seen 25 km to the southwest of Djibo, Burkina Faso. The dated terracotta figurine (O) with a similar stance and ogival head, comes from the same region, Yatenga. N is the same shape as a greenstone statuette in the Barbier-Mueller Museum and shares the upper body structure of M. Also note the similarity of J to grooved stone axes, which have continued to be made and used as amulets into historic times, and to the axe-shaped figurines of Group III-7 below. Figures K and P are said to have been found about 20 km east of Menaka at the southern end of the Azawagh watershed. Although Group II does not show pregnancy as consistently as Group III, at least seven of the Group II figures have swollen bellies (B, E, G, H, I, U, Y). C, F, K, L, P-T, W, and X are all made of amphibolite.

A) H: 12 cm. ex. Dartevelle. Also illustrated in Dogon (Leloup, 2011:350, fig. 3); B) H: 10.5 cm; C) 13 cm x 6.5 cm; D) 10 cm x 4.4 cm; E) One of the first to leave Africa: 10 cm x 2.5 cm; F) 10.2 x 3.8 at legs x 2.5 cm at buttocks; G) 9.5 cm x 4.4 cm at legs x 3.7 cm at belly. One of the few with differential erosion; H) One of the first to leave Africa: 9.6 cm x 3.9 cm x 3.1 cm; I) 10.1 cm x 4.9 cm at hips x 3.2 cm at belly; J) —; K) One of the first to leave Africa: 7.7 cm x 3.4 cm at arms x 1.8 cm at waist. The “concretions” at the base are actually in pecking scars; L) 7.2 cm x 3.8 cm x 3.1 cm; M) H: 11.4 cm; N) 9 cm x 4.7 cm x 4.5 cm; O) H: 11.3 cm; P) One of the first to leave Africa: 11.4 cm x 5.8 cm at hips; Q) 12.8 cm x 4.8 cm at hips x 3.3 cm at legs; R) 15.3 cm x 6.4 cm at hips x 3.7 cm at hips. The largest greenstone female anthropomorph seen in the CSSC. Hair seems to be indicated on the back by a downward point at the base of the head; S) 12.6 cm x 4.5 cm at legs x 3.1 cm at hips; T) 11.8 cm x 4.2 cm at arms x 2.7 cm; U) — Ex Dartevelle; V) 8.1 cm x 5 cm at arms x 3.5 cm at arms. Unusual material, like N: quartzite. The figurine reads as an animal when set on its knobs; W) One of the first to leave Africa: 10 cm x 4.8 cm at arms x 3 cm waist. Note grooves on cranium; X) 10.5 cm x 3 cm at breasts. This figurine has a frontal view of a woman’s body on each side. It can also be laid horizontally to read as a quadruped.; Y) 7.7 cm x 4.2 cm x 3.2 cm.

could be related to that people as well, but it must be said that the collector who cited the Mopti/Bandiagara zone as the provenience of all his Group III figurines later listed four of the same figurines (Fig. 5D, M, U, Y) on French eBay as coming from four different Saharan locations, thus adulterating their proveniences.

Regardless of where the sculptures in Group III come from, the group is also a bit of an artifice, since it contains two distinct families—one with seated, squatting, or bent legs, generally distended bellies, and flat or bulbous heads, which I shall call the “seated” family (Group III1–6), and the other with extended legs and ogival heads, which I will call the “standing” family (Group III7–8). These two broad families differ so greatly in their postures and lithics that they probably come from different localities or even cultures.

The “seated” family includes one subset (Group III1), which consists entirely of anthropomorphs in seated or kneeling positions (Fig. 5A–J) that are made of dense silicified bone—apparently from dinosaurs! Having discovered dinosaur tracks myself on the Bandiagara Plateau (which I hope to describe once the area becomes safer for Western visitors, since the trackways occur together with petroglyphs), it would not be surprising to find a major fossil deposit in the same area. If such an outcropping can be located, the origin of these seated figurines will probably follow.

What is strange about the second or “standing” family in Group III (Group III6, 7, 9), which consists of anthropomorphs with extended legs (Fig. 5Q–U, Y), is that they do not include a single sculpture made of such fossilized bone, even though they

3 A sampling of zoomorphic figurines in Group II (with one exception from Group III, Q), including a probable fake, B, which has freshly cross-sectioned quartz and pyrite crystals. The more plausible figurines in the group include a possible hyrax (D), which is said to have been found near Ayn Qaz-zam. J, K and possibly L represent dromedaries. N represents a giraffe while O represents an elephant. I is also shown as Fig. 2V, where it appears as a female anthropomorph. Q, which is one of the few “zoomorphs” in Group III from the “Mopti/Bandiagara” zone in Mali, is also shown in Fig. 5V, where it is shown dorsally as a female anthropomorph’s torso. The heads and tails of G and H are hardly differentiated. These two objects also appeared on the market simultaneously, suggesting a different locality. B, C, E, F, J, N, O, and Q are all amphibolites. A single amphibolite turtle also appeared in this group.

A) One of the first to leave Africa: 5.2 cm x 10.8 cm x 4.3 cm; B) A probable fake: 4.2 cm x 8.9 cm x 3.4 cm; C) 5 cm x 9.5 cm x 4 cm at front legs; D) Hyrax? 4.7 cm x 10 cm x 3.25 cm; E) 3.6 cm x 9.8 cm x 3.2 cm; F) 4.6 cm x 7.6 cm diagonally. Crust; G) 4 cm x 8.2 cm x 3.1 cm; H) 3 cm x 6.2 cm x 2.3 cm; J) Dromedary: 4.2 cm x 8.5 cm x 2.95 cm; K) Dromedary: 3.9 cm x 8.7 cm x 3.1 cm; L) 5.5 cm x 10 cm; M) 8.5 cm x 3.8 cm; N) Giraffe: 9.9 cm x 10.4 cm diagonally x 3.2 cm at legs x 3.3 cm at body; O) Elephant: 4.5 cm x 8.5 cm. Private collection; P) 12.1 cm x 5.2 cm at hump x 4.2 cm at front legs; Q) 6 cm at horns/eyes x 9.7 diagonally x 3.8 cm.



were purchased by their owner from the same African source at the same time as the first set. This family seems to fall between the seated subgroup and Group II, with which it has stylistic affinities (Caldwell 2013a).

More importantly, for the purposes of this study, Group III is composed almost entirely of anthropomorphs—many of which are highly pregnant (Fig. 5A–J, L–P, S, W)—with just three zoomorphs (Fig. 5V, X, and an unillustrated “elephant”), two of which (Figs. 5V, X; 3Q) can also be read dorsally as the torsos of pregnant women. The breasts of these “torsos” are formed by the rounded horns or eyes of the “animals” while their bellies are formed by the humps of the “animals.” Although Group II is more diverse than Group III, both in having a higher rate and diversity of zoomorphs and in the variety of its anthropomorphs, a great many of its human figures also have swollen bellies (Fig. 2B, E, G, H, I, U, Y).

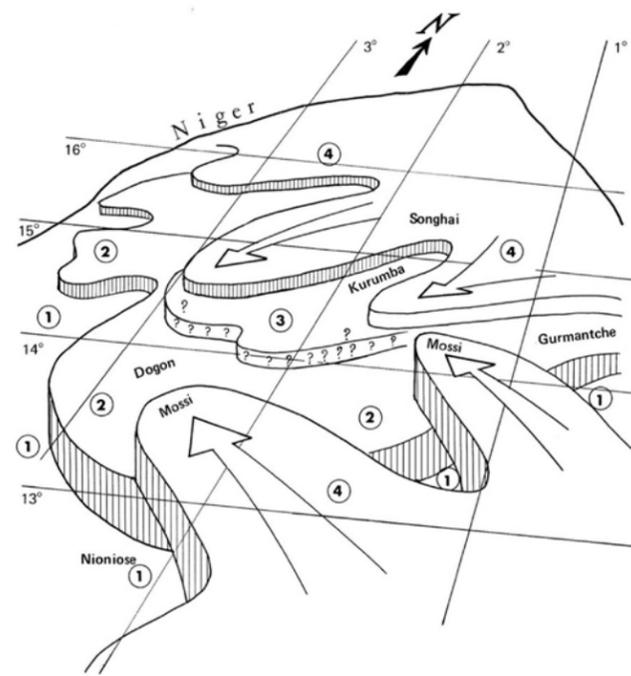
THE AGE AND CULTURAL ASSOCIATIONS OF GROUP IV

Although one figure in the last group of figurines in the CSSC (Group IV) has been linked to the Azawagh (Dartevelle 2006),

the other two figures (Figs. 6–7) in the small family have been linked by two anonymous sources to equally desertic regions farther to the east, around Agadez. The three figurines (Figs. 6–7) share the following two commonalities, which set them apart from the rest of the figurines in the CSSC:

- fused legs, which form a single tapering peg, instead of separating at the bottoms, and
- unusually light-colored rocks, which are quite different from the darker stones of the other sculptures.

Two of the figurines in Group IV (Fig. 6, left and center) are also unusually big for the CSSC, suggesting that they might have been used differently, while a second pairing (Fig. 6, center and right) has steatopygic buttocks, grooves around their ankles, and differential erosion, which is missing on many other figures in the southern groups. The strong resemblance between the last two figurines even makes it likely that they were found in the same vicinity—a possibility which is reinforced by the fact that they were traced back through various owners to the same source, who had sold them at the same time to separate clients in Brussels.



4 Various cultures have expanded into the Yatenga, creating an overlay of influences. The map would be even more complex if enough information were known to map cultural flows back more than five or six centuries. From Marchal 1978:482.

But the bigger of the two figures with protruding buttocks (Figs. 6 center, 7) has one feature—double shoulders—which is so unusual in statuary from anywhere in the world that it distinguishes it from its smaller sister and forces us to look for an explanation. It turns out that the double “shoulders,” which are pointed and suggestive of horns, make sense when the figure is laid on its back and viewed from the side. Suddenly the figure, which looks in one vertical position like a woman (Figs. 6 center, 7A), whose body is flexed at the waist, and then, when inverted, like a phallus (Fig. 7B), becomes a naturalistic herbivore’s head (Fig. 7C). The end of the fused “legs” or “phallus,” which is separated from the rest of the figure by the groove, becomes a differentiated muzzle, while the doubled “shoulders” turn into a horn and ear. It even looks as if the sculptor positioned the carving to take advantage of a dark inclusion, which reads as the herbivore’s eye.

Although nothing quite like these nearly identical figurines seems to be known from elsewhere in the Sahara, there are still some points of comparison. The first one may be with both phallic sculptures and a group of “eyed cobbles” (Caldwell 2013b:183–84) from the western Sahara, since the sculptures in the two groups often have an annular groove around one end to differentiate a head, which is reminiscent of the glans penis. But the comparison is so distant and limited that it does not suggest a close relationship, so we must look elsewhere.

The second set of comparisons is more likely to represent a real link, since the sculptures, which come from the Jebel el-’Uweynāt in southeastern Libya (Sukova 2011:117–24, VI–VII) and Kadruka in Sudan (Reinold 2000:67, 84/SNM 26861 and

SNM 28731) have fused legs that form a single peg at the bottom of each figure, atrophied knobular heads, and swollen buttocks, in the case of the statue found in Neolithic cemetery KDK 21, near Kadruka—making them look like they could be related to their similarly designed mid-continental sisters. The sculptures in both the Sudanese and central sub-Saharan canons (including Groups II and III) were all pecked into shape and then polished, a process which encouraged the sculptors to produce anthropomorphs without narrow necks or breakable extremities such as hands or feet. The only anatomical details of the minimalist figurine from Cemetery 1 are its rectangular eyes and suggestion of shoulders, while the main ones on the figurine from Cemetery 21 are its shoulders, protuberant buttocks, and two bulging ridges across the belly. This emphasis on a woman’s sagging or wrinkled belly is reminiscent both of the overhang at the bottom of the atypically large “Azawagh” figurine’s belly (Darteville 2006) (Fig. 6 center) and of postpartum wrinkles or pregnancy. Most of the Neolithic ceramic figurines of women from Sudan are almost as minimalist as most of the “standing” figurines in the CSSC, with an emphasis on wide pelvises and, in the most realistic figurines (Reinold 2000:81/SNM 26969), the portrayal of full-term pregnancy—indicating that they were associated with childbirth and women’s regenerative capacity.

Another intriguing aspect about the three stone statuettes from the Jebel el-’Uweynāt and Sudan is that they are linked with the desert west of the Nile, since they are made of a type of banded sandstone that occurs 150 km west of the river at Laqiya Arbaïn (Sukova 2011). This fact, plus their distribution across a 600 km stretch of the eastern Sahara, proves that communication took place along an east-west axis, which could have continued as far as Niger as long as the rain-belt covered that part of the Sahara and there were no natural barriers.

Luckily, all three of the eastern figurines have also been dated, if only indirectly. The ’Uweynāt figurine was dated on the basis of shards from the site where it was found, which were “decorated with packed dotted zigzag and incised and dotted wavy designs attributable to *Phase B* (c. 6600–4400 cal BCE) and the herringbone motif characteristic of *Phase C* (c. 4400–3000 cal BCE)” (Sukova 2011:120). The Sudanese statuettes, on the other hand, were dated on the basis of other tombs in the necropoli, which were carbon-dated to 4230 cal BCE at Cemetery 1 and between 4790 and 4720 cal BCE at Cemetery 21 (Sukova 2011:120–21). Although the feminine figurines from such sites as es-Sour were not stone, but ceramic, one of them provides yet another point of reference with dates of 4240 to 3955 cal BCE (Sadig 2009:48, 53). In passing, it should be noted that feminine images with even more exaggerated buttocks became typical of rock art in parts of the Libyan Desert and Nubian Nile valley in C-Horizon times, which lasted from 2620 to 1620 cal BCE (2100 to 1400 BCE in Červíček 1992–93:41–48).

In conclusion, the three figurines in Group IV probably have the best chance of any of the statuettes in the CSSC of being Neolithic. If they are that old, then they may be the ancestors of the objects in the other three groups, making Groups I, II, and III the descendants of a south-central Saharan sculptural tradition, as opposed to northern ones described by myself (Caldwell 2013b) and Le Quellec (2008), among others.

5 A sampling of the anthropomorphic figurines in Group III of the CSSC, which appears to come from somewhere around Mopti and the Bandiagara plateau in Mali. Group III contains the following subgroups for the present:

- Group III-1 (A–J, O) consists of squatting or kneeling female anthropomorphs with globular heads and arms wrapped around fully pregnant bellies. They are all made of dense silicified bone.
- Group III-2 (W) Although figurine W resembles the statuettes in Group III-1, it came from a different source, has a reddish patina, and is not made of fossil bone, indicating that it represents another locality.
- Group III-3 (K–L) consists of closely related female anthropomorphs made of the same fossil bone as the ones in Group III-1, but without arms and with flat heads. Both Groups III-1 and III-3 may have been used as pestles, at the bases of the first group and both ends for the second.
- Group III-4 (M–N) consists of more elongated, kneeling, female anthropomorphs without arms and with either globular or phallic bulbous heads. They may be made of either fossil bone or hardstones, and seem to represent a transition towards the figurines in Group III-5.
- Group III-5 (P) is a transitional type between the previous and following types. It is not as elongated or clearly related to a polished axe blade in form as the figurines in Group III-6, but it is clearly related to figurine S in III-7 by its ogival head, arms folded under the breasts, light green amphibolite, and patina.
- Group III-6 consists of elongated female anthropomorphs (Q–T, Y) with or without arms folded upwards over the chest, in one case under breasts. They always have ogival as opposed to globular heads and are made of diorite and other hardstones, but not fossil bone. Several of these, such as figurine T, have three points along the base. Q, S, T, and Y are all made of amphibolite. R and others of its ilk are made of gabbro.
- Group III-7 (U) is an amphibolite anthropomorph with a groove up the middle of the body. It is clearly related to two figurines with such grooves from the so-called Azawagh corpus (Group II P and Q), although those specimens are made of the dark green stone with a lustrous patina that are typical of Group II and have two grooves crossing the vertical one below the neck, as opposed to just one in this group. Even its material, which is a speckled green hardstone, closely resembles the materials in Group II, suggesting that this specimen comes from an intermediary locality or is an import. Such clear links between the two groups also suggests that they are contemporaneous or closely related in time.
- Group III-8 (V and X) consists of small zoomorphs, which appear to double as partial female anthropomorphs. When viewed from above, the backs of these amphibolite figurines look like the torsos of pregnant women, with the hump becoming a belly and the rounded eyes or horns becoming breasts. A side view of the figurine shown here dorsally as V is shown in Fig. 3Q.
- Group III-9 (unillustrated) consists of broad tabular female anthropomorphs with basic ogival knobs for the heads, arm stumps and feet. They have rounded edges but are flat enough to have been used as pigment palettes.

Although the figurines in Group III are similar to those of Group II in their size, hardness, and shapes, they have matte patinas, as opposed to Group II’s lustrous ones, and are made of dense fossil bone or green hardstones that are usually lighter in color than the dark green amphibolites in Group II. Group III has far fewer zoomorphs, with the few it has appearing to double as female anthropomorphs (V and X), depending on their orientation.

- A) 13.3 cm x 9 cm at base x 8.7 cm (base). Fossil bone (= FB); B) 11.7 cm x 6 cm (base) x 7 cm (base). FB; C) 9 cm x 4.6 cm (base) x 7.6 cm (Feet to navel on horizontal). FB; D) 12.3 cm x 6.3 cm (base) x 6.9 cm (base). FB; E) 6.8 cm x 4 cm (base) x 6.8 cm (base) x 9 cm diagonally toes to scalp. FB; F) 10.5 cm x 5.5 cm (base) x 9 cm (base). FB; G) 6 cm x 4.8 cm (base) x 6 cm (base). FB; H) 10.2 cm x 5.6 cm at elbows x 5.5 W (base) x 5 cm (base) x 7.7 cm D at belly. FB; I) 8 H x 5.5 cm (base) x 5.7 cm (base). FB; J) 6.7 cm x 2.6 cm (base) x 3.9 cm (base) x 4.1 cm at belly. FB; K) 8.2 cm x 4 cm (base) x 5.2 cm (base). FB; L) 5.9 cm x 3.5 cm at arms x 4.2 cm (base). FB; M) 11.6 cm x 4.6 cm (base) x 5 cm (base). FB; N) —; O) 10.4 cm x 4.3 cm (base) x 5.2 cm at belly. FB; P) 8.5 cm x 4.5 cm at hips x 2.9 cm at belly. Q) 20 cm x 6.6 cm at hips x 5 cm cm at chest. Dark hardstone; R) 14.5 cm x 5.5 cm at hips x 4.2 cm; S) 15.3 cm x 5.7 cm at elbows x 4 cm at belly; T) 14.5 cm x 5.5 cm at hips x 4.5 cm D at hips. Note 3 points along base; U) 11.2 cm x 4.5 cm at hips x 3.5 cm at buttocks. Hard greenstone with inclusions, similar to ones in Group II; V) Dorsal view of a quadruped: 6 cm at the horns (breasts) x 9.7 cm diagonally x 3.8 cm. The eye/horns show no soil patina and are polished by wear; W) 9.2 cm x 4 cm at arms x 2.4 cm at belly. Reddish patina; X) Dorsal view of a quadruped: 9.5 cm x 4.9 cm at horns (breasts) x 3.3. Diorite; Y) 14 cm x 5 cm at hips x 3.5 cm at buttocks.



EVIDENCE OF WEAR, PATINAS, AND HUMAN POLISHING

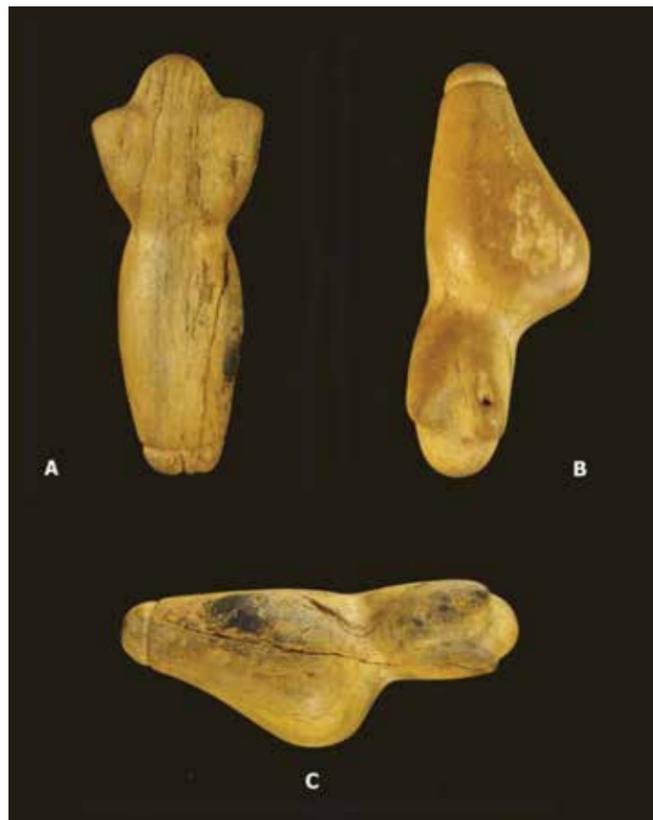
Although two of the figurines in Group IV appear to exhibit differential erosion, hardly any of the figurines in the other groups have overt signs of heavy weathering, although it must be said that they are often made of denser rocks and there are a few partial exceptions. Two figures in Group II, for example, seem to show a little differential erosion (Fig. 2G, I) while a closely related figurine, which is unique in its dark black stone (Fig. 8A) and source (having been sold by an African who said he had bought it in Lomé, Togo), even seems to have been pitted by sand. But sand storms can strip the paint off vehicles and pit some rocks within decades, so such erosion does not prove that the figurine is Neolithic.

Another aspect of two green amphibolite figurines in Group II (Figs. 2F, 3B), which turned up when they were studied microscopically by Dr. Erik Gonthier at the Muséum national d’Histoire naturelle in Paris in the presence of the author, is that their gloss and shiny crusts, which had often been interpreted as wind gloss, turned out to be caused by a combination of human polishing and a waxy substance mixed with fine silica dust, suggesting that they had been heavily handled or that the wax laden with abrasive silica was even a remnant of polishing. One of the



6 Group IV of the CSSC, which consists of just three light-colored, female figurines with fused peg-legs. The left figurine (H: 16.5 cm) is tentatively placed in Group III because of its unusually large size, tapering bottom, and light-colored material. The two female figurines on the right share four unusual characteristics for the CSSC: protuberant buttocks, a groove differentiating “ankles,” light-colored as opposed to dark stone, and differential erosion. Unlike the majority of figurines, which are reputed to come from the Azawagh in the case of Group II and central Mali in the case of Group III, the two figures on the right are said to come from the Agadez region. (Left) 14.8 cm x 5.5 cm x 5.9 cm. (Right) Approx. 2.5 x 3 cm. Private collections.

7 A polysemic figurine in Group IV appears to combine references to a woman’s body (A), a phallus (B), and a herbivore’s head with its ear and horn projecting towards the right (C). 14.8 cm x 5.5 cm x 5.9 cm.



tures found in the Grimaldi caves—they wondered whether they might have been used as “birthing amulets” by would-be mothers, traditional midwives, or fertility practitioners (White and Bisson 1998) like Zuni figurines cited by Peter Ucko (1968). This line of reasoning led me to wonder if there was any evidence for such practices in the south-central Sahara and adjacent areas of the Sahel which could explain the figurines. One reason for thinking that such customs might have existed in the zone is that similar ones involving anthropomorphized bones and small sculptures are known to have survived among women and fertility practitioners elsewhere in the desert and Sahel. These practices include:

- The *jilankonnde* of the Peul in the Casamance. In the words of Souleymane Baldé, a Peul author of several works on sub-Saharan sterility, fertility, and birthing practices, including *Stérilité au Fouladou* (Baldé 1986),

A Peul woman who wants to become a mother is given a leg bone from a goat which is variously called a *jilankonnde* or simply a *boobo* or *biddo*—both of which mean “baby.” The bone is drilled with holes for its sex and sometimes other orifices and perhaps the insertion of jewelry like earrings. The woman feeds and cares for the bone—which has a personal name—exactly as if it were her infant, and wears it under her clothes. During labor, she grips the protective figure to help her. Then, after the baby is born, the bone is called the child’s elder sister or brother and is still imbued with power since it remains the interface between dimensions. First with animals, which sleep so lightly that we believe that they are never truly asleep, but are aware of the invisible in all directions; and, secondly, with the dead, who return to the wilderness where they commune with animals and the invisible. For without the accord of the ancestors, we believe there can be no birth (Baldé, personal communication published in Caldwell 2009).

- Frequent visits by Tuareg women to a circular tomb at Tazerouk, which is thought to have been protohistoric, where a stone sculpture of a bovine head was found with an array of “Neolithic” artifacts, including querns, pestles, polished axes, and a polished white stone, and such recent offerings as candles, soap, needles, and bits of cloth. The Tuareg associated the white grinding stone with a “white” Tuareg woman and black

anthropomorphs (Fig. 2F), which did not have signs of either being fake or being very ancient, had such intense wear, including discoloration, on the top of its head, as opposed to its face or other surfaces, that Dr. Gonthier even wondered whether rubbing the cranium had some special significance.

BIRTHING AMULETS

When Randall White and Michel Bisson looked for an explanation for the small sizes and manual polish on another corpus of feminine figurines—this time the fifteen Gravettian sculp-

8 These two figurines, which reached the market separately from each other and any others, each show characteristics that indicate that they may be outliers. The one at left (A: 8.5 cm H x 3.4 W at the hips), which was sold by a Togolese instead of a Malian or Nigerien, is similar in structure to two other figures, one in Group II (2P) and another in Group III (3U), since it has a groove up the middle, but it differs from them in having extended arms and more pitting and gloss than any other sculpture in either group. This suggests that this figurine was exposed to extensive wind erosion. The figurine on the right (B: 8.35 cm H x 4 cm W x 3.1 cm D) has a globular head and distended belly like the majority of figurines in Group III’s “seated” family, but differs from them in its material and stylistic conventions. Although it is made of fossilized bone like the figurines in Group III-1, the bone isn’t nearly as dense or silicified, suggesting that it comes from another outcropping. Another difference is that its small bulbous legs don’t appear to be kneeling or seated. The figure is also among the few figurines with a globular head and big belly that does not have arms. Together, these specificities suggest that this figurine, which has abrasions around the neck indicating that it was used as a pendant, is an outlier with a close affinity to Group III.



bovine head with her “black” servant and referred to the Tazerouk statues as the *Tibaradin*, meaning pubescent girls (Lhote 1950, Camps-Fabrer 1966:260–61). Like the *jilankonnde*, the sculptures were associated with successful pregnancy and childbirth (Hachid 1998:148–53), while the name suggests that the site had been used in recent times for female initiations.

- The reuse of a set of apparently Neolithic statues, whose features reflect those of both humans and owls, at Tabelbalet, on the northern edge of the Tasili-n-ajjer, by Tuareg women who painted the statues’ eyebrows with paint and make-up (Camps-Fabrer 1966:260–61) and associated the sculptures, once again, with divination, making wishes, ensuring veracity, successful childbirth, and overcoming sterility (Hachid 1998:148–53).

The problem with this line of speculation in the case of Groups I, II, and III would seem to be that they include zoomorphs, although some of the zoomorphs (Figs. 5J, K, V, X; 3A, Q; 9) look like pregnant women from certain angles. But oral testimony from African informants revealed that references to animals were common in birth-protection rituals in the central Sahel until the mid twentieth century.

DOCUMENTATION FOR THE WIDESPREAD USE OF ANIMALS IN BIRTH-PROTECTION RITUALS

Some of the most common associations of childbirth with animals involved rites in which an animal was brought into a birthing hut to provide a mother and her baby with an animal’s supernatural protection. According to Dramane Uoba, a source in the zone inhabited by the Gurma (also called the Gourma or Gourmantché), which roughly corresponds to the Est administrative region, his grandmother, who was a traditional midwife named Marie-Jeanne Barkimba-Yoni, known to her familiars as “Aunt Jeanne,” used to bring a sheep or goat into the birthing hut to make sure the birth was successful. She practiced this ritual in

Niamey in the early 1940s, then in Fada N’gourma, and finally in the 1960s in Bogandé.

Another informant named Daouda Diallo, who is a Peul-Rimaibé, from Bango near Ouagadougou, recorded his maternal great-grandmother Kumba Diallo’s description of her people’s traditional birthing practices in the following words:

Part I—Bango, the 19th of June 1980: A bride and the children she will have are protected by animals. When she becomes pregnant, the husband’s family gives her a lamb, which will accompany her during her pregnancy. The day of the birth, the animal is tethered inside the hut. The names that we give to the animals are Bala (which means goat), Beiva (which means sheep or lamb), and Naguè (which means cow or calf). When the woman in labor cries out, the animal cries and the women in attendance call the animal by its name and ask it to be quiet. If the animal doesn’t cry, the child won’t come out, but when it stops crying, the mother gives birth and the animal gives its name to the new child. My grandmother, whose ears I must not touch, has promised to tell me the secrets for giving birth with an animal next time.

Part II—What happens in the hut: The woman is carried into the interior of the birthing hut feet first, with a tether from the pasture tied to her ankles. Before putting her down, the participants say “Come child in serenity!” (*Souko Warou Djans!*) thirteen times two (twenty-six times). Once water begins flowing from between the woman’s legs, a little of it is collected and mixed with other water and given to the animal tethered in the hut. The root of a tree, which is called “Gogui,” is moistened and as soon as the woman drinks from it and the animal has cried, the child appears.

To extract the root, one must gather dew very early in the morning and pour the water under the tree. If the water from this root is given to any living pregnant being, she will give birth within fifteen minutes.

The bottle gourd of the statue that you see here allows one to do many things but I cannot tell you what they are yet, because you are too young. But if you put water in it and leave it for three days and have a childless woman drink it, she will have a child without problems in



9 Three examples of possible visual puns between a woman's anatomy and animals. Such puns appear to be a frequent theme in the CSSC, but seem to be absent among western Saharan zoomorphs. A) Seated anthropomorph; B) Same figurine as a zoomorph; C) Zoomorph; D) Same figurine from the bottom, with front legs that read as breasts; E) Dorsal view of a quadruped in Group III, which is suggestive of breasts above a swollen belly; F) Same figurine seen from the side.

be used to define him as “anti-Islamic”), Diawando Peul—who claim, by the way, to be descendants of the Queen of Sheba—do indeed use a calf in birth protection rites.

Before passing on, it should also be noted that the maternal grandmother, Gani Diao, of another highly informed source, Dr. Aminata Salamata Kiello, who worked for the Fonds de Solidarité Africain and does research at the Centre d'Études Linguistiques et Historiques par Tradition Orale in Niamey, came from a village named Malanga (24 km from the original capital of the Mossi Empire, Tenkodogo), where a song with five verses in a forgotten language was sung exclusively during the weddings of eldest daughters. To her astonishment, Kiello thought she heard a longer version of the same song on a taxi radio when she was visiting Addis Ababa in the late 1980s and discovered that it was in Amharic, and that Ethiopians believe it was written by the Queen of Sheba for her marriage to King Solomon. When Kiello told the co-director of her dissertation, Jean Rouch, about the incident, he encouraged her to record her grandmother, but the old woman died before Kiello could do so. Although one might be tempted to think that the perceived resemblance was due to an Afrocentric impulse to demonstrate the antiquity and grandeur of a local custom, there is no doubt that “The population of Africa was (once) a gigantic, matted, crisscrossing web,” as Ryszard Kapuściński put it, “spanning the entire continent and in constant motion, endlessly undulating, bunching up in one place and spreading out in another, a rich fabric, a colorful arras” (2001:20). While we are on the subject of migrations like the movement of a small group of Falasha, which Dr. Kiello thinks may have taken place centuries ago, it is worth noting that part of Kiello's maternal line, which was the Peul royal family in Tenkodogo, originally came from a place almost equally as far away as Ethiopia, but in the opposite direction: the Casamance in southern Senegal (via Ghana), showing how one person—let alone an ethnicity—in the central Sahel might be loosely associated with both of the zone's extremities.

Although most informants who have spoken of the use of animals in the context of birthing have suggested that the participants were invoking their protection, Kiello also gave a practical if still supernatural explanation for this, since she noted that animals usually give birth (or in the case of birds, lay their eggs) with far less difficulty than women, so the association can be seen as an attempt to borrow the animal's ability while also shifting the danger onto it. Even if there are no actual supernatural benefits, it is easy to imagine how such an association could have reduced both the expectant mother's and her community's anxiety and even provided a placebo effect. These benefits may have been particularly pronounced in societies in which women had a 1–3% chance of dying with each birth, and a cumulative risk

ten months. One day, I will show you another thing you can do with the bottle gourd and ladle.

To be successful in these things, one must give a lot of things and a 5 franc bill to the blacksmith.

When a woman gives birth outside the birthing hut, one must bring the baby to the house in a basket made out of “Goungoumi” stems and the father must come to bury the placenta. The names of the trees which are good for this ritual are Goungoumi, Gagaye, Hédi, Guéléki and Gogui.

It should be noted that Kumba Diallo wore a special homespun garment covered in amulets while helping women give birth, but that it did not look like a typical hunter's tunic, although such garments are also covered with amulets.

Yet another source, this time a Soninke from the Bamako region of Mali, reported that Soninke would bring a chicken into the birthing hut to provide an animal's protection and went on to say that Bambara use any animal while Peul prefer a calf. This was confirmed by a Peul, who was born near Timbuktu at Nianfaouké in Mali. According to this source (who asked to remain anonymous after the conquest of eastern Mali by Islamists, since he was afraid that his knowledge about traditional practices would

10 One of several identical artifacts with parallel grooves across their base and rounded backs found by Christine and Yves Gauthier in a surface area that could have been covered by a single man-made structure. Plaine de l'Amador (Algeria). 15 cm long. Photo: courtesy Yves Gauthier



of at least 10% for five pregnancies (Dobbie 1982:79–90, Loudon 1992, Schofield 1986), despite the existence of indigenous medical practices with some experimentally proven benefits (Helwig 2005, Mackraj and Ramesar 2007).

Finally, Dr. Katimou Maga, who is Songhai and a medical doctor, reported that Songhai would bring a horse into the birthing hut when a woman was having trouble giving birth and would name the child Barkèré, meaning “under the horse,” if the child survived. He went on to say that only people over 40 or 50 years old have this first name, although the name has sometimes become a family name. Dr. Maga is the brother of Abdoulaye Maga, who was the Director of the Institut de Recherche en Sciences Humaines (IRSH) in Niamey, which Jean Rouch founded, so it is interesting to note that even such a great Africanist as Rouch apparently never learned of or mentioned such birth protection rituals using animals.

A linguist at the IRSH named Aveymatou Mazou stipulated that the name Barkèré is neuter and was given to both boys and girls. She also reported that two other names were used in association with such births under the protection of a horse: Ver-cougné, meaning “mare,” for girls, and Kangey, which refers to the post to which a horse is tethered in a hut. She also thinks that the practice was “just a custom” and not a relic of “animist” thinking.

Be that as it may, the widespread use of animals as spiritual guardians, maternal surrogates, or targets of deflected menace during birthing rites across much of the Sahel suggests that the practices must have ancient antecedents. The presence of squatting women in conjunction with animals in rock art just to the north, in the Sahara, suggests that those antecedents may even be prehistoric, in which case the insight provided by recent testimony might provide an avenue for interpreting such ancient scenes as:

- an engraving of a woman and “baby” from Wadi Alamas in the Messak, which has been interpreted as a birth scene (Gauthier and Gauthier 1994:90, Fig. 1), and
- a woman in the “gynecological position” next to a bovine connected to a “placenta” and ewe connected to another possible placenta in the Messak Mellet (Fezzan) (Le Quellec and Gauthier 1992–93:29–40).

The rituals that we have examined from the Sahel are especially reminiscent of Henri Lhote's impression of a painting at Sefar, Algeria (of a pregnant anthropomorph, whose labia are distended as if in childbirth, overlapping a giant antelope), which he described as follows:

[To the left of a huge horned man] five women were walking one behind the other in a sort of procession. Their hands were raised towards the main figure, apparently in supplication. To the right was

a large antelope in red ochre and a woman lying on her belly. Her legs were apart and her belly so swollen that she seemed upon the point of giving birth. This scene certainly has a magic character connected with some fertility or maternity cult. The women, whose whole attitude showed clearly enough fear of, and respect for, the main personage, could only be praying to become mothers or to have easy delivery (Lhote 1959:120).

The use of amulets that could be clenched in a woman's fist(s) as she gave birth might even explain a set of small prehistoric artifacts with parallel grooves across their base and rounded backs (Fig. 10), which Yves and Christine Gauthier² found in a surface area that could have been covered by a single tent or hut. Upon seeing this manuscript, Yves Gauthier wondered whether the enigmatic objects could have been held by women in a birthing hut, since the domed backs fit neatly into the palm of a hand, while the grooves provide a firm grip for one's fingers—somewhat like the grooves between the anomalous number of knobs along the bases of the fused bovine (Fig. 1) and elephant (Fig. 3O). Although the use of such Saharan objects and figurines in the southern group as birthing or any other kind of amulets cannot be proved yet, such uses must be considered, given their small size, resistance to breakage, and intense polish.

Finally, there might be an explanation why some of the artifacts exhibit a strange combination of polish and ferruginous clay deposits in dimples left by pecking as well as repeated references to figurines being found on the surface after hard rains.

Some of them could have been hidden in niches within termite mounds, which often serve as “altars,” between rites for objects with special powers. This makes sense for several reasons. First, termitaries are associated with femininity by at least one people, the Dogon, according to Marcel Griaule’s informant Ogotem-méli, who said that the earth is a female body and that “an ant nest is her vulva (while) a termitarium is her clitoris” (Griaule 1948:15–16); two, termite clay is especially adhesive, which may explain the consistency of some of the deposits on the objects; three, the technical characteristics of such clay make possible the magical transformations of traditional African metallurgy, with all of its sexual connotations for cultures like the Dogon. Dogon blacksmiths, for example, specifically use termite clay to make the refractory aeration pipes and linings of their furnaces, since its high silica content and purity makes it particularly fire resistant when baked (Huysecom et al. 1997). They also believe that the primordial blacksmith,³ who sprang from the umbilical cord of the fifth *nommo* when that being was sacrificed by the celestial deity Amma (Laude 1973, Griaule and Dieterlen 1986), landed upon the Earth with the sacrificed *nommo*’s “penis and testicles, which he used to make the pipe and bellows of the first forge” (de Heusch 1985:135). The aperture of the blowpipe, in turn, was associated with the vagina and fecundity, uniting male and female principles into a single powerful instrument. If the figurines were indeed hidden in termite mounds with such rich associations, then it would explain why the figurines have been found—according to some sources, who wish to remain anonymous—after torrential rains, which make old mounds melt.

But that is just a conjecture, which will have to be tested in the field. In the meantime, we must assume on the basis of the sudden appearance of the fairly uniform assemblages represented by Groups III1 and III7, which have traces of slightly caked laterite on them—a soil which is more typical of the Sahel than the Sahara—that several concentrations of buried objects from related traditions have been found—quite possibly in mounds, altars, or tombs—making archaeological intervention to complement what has been reported here urgent.

CONCLUSIONS

This article has provided new evidence to feed the debate over possible links between some pre- and protohistoric art, on the one hand, and recent beliefs, on the other. I have already explored Paleolithic imagery showing relationships between zoomorphs and pregnant figures (Caldwell 2009, 2010, 2012), and have advanced the hypothesis that some prehistoric societies believed women’s generative capacities made them essential not only for regenerating killed prey, but as part of a triad with hunters and game. The testimony cited in this article suggests that imagery fusing feminine and zoomorphic features may also be based on the use of animals to protect women and their babies during labor. We have seen how this protection can be construed as a simultaneous borrowing of the animal’s ability to bear young easily and transference of a woman’s risks. We have also seen a case, among Peul-Rimaïbé in Burkina Faso, where the cries of expectant mothers and their animal “assistants” or “surrogates” are believed to fall into sync, suggesting that they come to represent one another, and the animal “gives” its name to the

newborn, indicating that its association with the mother is transferred to the child, who has benefited and will apparently continue to benefit from its protection. Finally, we saw another case, where birth is not possible without the consent of one’s ancestors and a link to animals, which commune with them, since animals are seen as being alert to the visible and invisible. This appears to mean that Peul in the Casamance, at least, view animals both as conduits between the living and dead and as sentinels against invisible spiritual threats.

These beliefs in areas which have been knit together to various degrees by family and tribal movements, as was seen in particular cases, suggest that many of the people in the Sahel subscribe to a complex ontology that blends three of the four ways that Philippe Descola (2010) thought humans could construct a worldview, depending on whether they think the entities around them (which may range from plants and animals to landmarks) are similar or dissimilar to people in their interiority and physicality. Although Descola has argued that the four ways of thinking in his ontological grid are fairly distilled in some parts of the world, the customs we have encountered seem to correspond to world-views in which:

- humans share intentionality and agency with non-humans but are differentiated by their bodies (when human and animal calls fall into sync),
- humans are both physically and morally distinct from other entities, but may be related to them by analogy (when people associate an animal, which can bear young easily, with a threatened woman by bringing them into conjunction), and
- humans are both physically and morally similar to other entities (when babies acquire the identity of animal protectors).

It would be interesting to investigate why the amalgam contains features that Descola thinks are often fairly isolated elsewhere. Is this complexity simply the result of syncretism, or could it also be a relic of the kind of belief systems with ingredients of all the cosmological distillates that a phylogenetic analyst would expect to find in an undifferentiated blend near their evolutionary root?

While we wait for answers, it is also worth determining whether the reliance on animals as protectors or supernatural substitutes for imperiled women and their babies during childbirth extends beyond the Sahel and whether such practices have had an impact on other kinds of African imagery than the ones suggested here. In the meantime, some things have become clearer: the figurines in the CSSC appear to cluster into several stylistically and lithically coherent groups, several of which seem to be related to one another, and indicators place them in the Sahel rather than the Sahara, and in the historic era, rather than the Neolithic. Taken together, these clues should provide a springboard for further investigations, which may lead to a better definition of these sculptural traditions and the preservation of archaeological sites.

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Notes

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1 I am grateful to Diouldé Laya and Aminata Salamata Kiello for casting light on this phrase (personal communication, April 15, 2014). If I have understood them correctly, there are two variations on this expression in Songhai: *Hanga sidi* = One cannot catch his ear, and *Hanga si ham* = One cannot touch his ear. According to an Arawas myth, a grandson named Arawa “touched the ear” of his ancestor, causing the ancestor to return. Upon returning, the ancestor saw the grandson, who died as a consequence. One must not “touch an ancestor’s ear,” which I assume means “ask anything of an elder or ancestor,” for several generations, because five or six generations separate a living person from a person who has attained ancestral status (representing a gap of about 100 to 150 years). In 1962, Hampaté Bâ sang and danced a text containing the expression “do not touch the ear” in front of Diouldé Laya and the Nigerien historian André Salifou in Niamey. The text he sang was called “*Sambaré, ha hou-lan leïdi na?*” = “*Sambaré, would you fear the ground (the earth)?*” “*Sambaré*” means the second son in Peul.

2 Yves and Christine Gauthier, personal communication, 2012.

3 The Blacksmith is also the seventh *nommo* of the four pairs of *nommo* twins, whose creation occurred after that of the Primordial Couple, who were the first *nommos*.

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