A Lead Mask from the Liberian Dan: The Poro Expansion Ritual

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During a very brief period in 1952–53, a new cult called Massa made inroads among the Senufo, destroying Poro objects and disrupting ancient Poro rituals. It was during this time that the existence of many sacred Poro objects, which had been so successfully concealed for ages within the confines of the Sinzanga (Sacred Bush), were first revealed to outsiders. The “Ring of Silence” – Nyi-Kar-Yi – was one of these. These are brass rings with horned bush cow maskettes upon them. They belonged to the Elders’ Poro, as evidenced by their brass composition. Several examples were collected and first published by Father Clamens (Clamens, G. 1953. *Notes Africaines* no. 59:76-80). Upon completion of the period of sequestration within the Bush School, each initiated boy, with his new Poro name, dressed in ritual garb including a cowrie shell necklace and bracelet, loin cloth, woolen cap, and carrying a bow and arrow and a supply of snuff, was released into the village. Each brought with him a Nyi-Kar-Yi, lent to him by the elders specifically for this ritual. The boys stopped at each of the Poro Elders’ houses, where they paid their respects, and gave the Elder a gift of snuff. The Nyi-Kar-yi was held in their mouths, like a stopper keeping their mouths closed, metaphorically emphasizing their oaths to not reveal Poro secrets on pain of death; hence the name “Ring of Silence”. At the end of this ritual ceremony the rings were returned to the Elders in the Bush, to await their usage by the next cycle of graduating initiates.
A Lead Alloy Mask from the Liberian Dan: The Poro Expansion Ritual

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Abstract

An all-metal face mask from Vonehhta, Liberia, accompanied by its wooden agent mask, was assayed using pXRF to determine its elemental composition. It is a lead alloy consistent with casting by a Mande blacksmith using melted lead bullets from the colonial era. The reddish coloration of its oxidative coating appears to be from the application of camwood dye. This is the only known lead mask from sub-Saharan Africa. These two Bush Spirit masks played a central role in the ritual by which a Poro group expanded its political, social, and religious power to another group.

Throughout its untold centuries of existence along the Guinea Coast of West Africa, the Poro men’s association and its related sodalities, by any name, have done a remarkable job of withstanding inroads by the “new religions”, Christianity and Islam. But, like other religious and political institutions, the Poro sought to extend its reach to new areas and villages. Its success cannot be underestimated, considering that historically nearly every postpubescent male in Liberia, much of Guinea, Sierra Leone, and Côte d’Ivoire became an initiate and carrier of esoteric Poro knowledge.

The method used by the Poro to expand its influence among such a multicultural geographical region had remained a mystery. A brief reference was made by Christian Højbjerg, who called the Sacred Grove of the neighboring Loma peoples Savei (1999:550). He noted that a new Poro chapter and its Savei, usually referred to as the Geh Bo, could only be established by an existing Poro group from a nearby village through an elaborate ritual (savei vhèvai), but he did not mention if he witnessed this, how this was performed, or if a specific Bush Spirit mask or other sacred artifacts were involved.

The Dan Poro Expansion Ritual

All-metal masks of any kind are extremely rare among the peoples of the Upper Guinea Coast rain forest region, and the example shown in Figure 1 is no exception. It was collected from Dan territory in Vohnhehta, Liberia. Called Ku’wo, it is a round-eyed (male) Bush Spirit mask that was used to start a new Poro base (CFT coll. Catalog no. P0111a).

When a village without a strict centralized Poro was the target of the political ambitions of a neighboring village, the Elders of the stronger Poro used this mask to consolidate the weaker village into its sphere of influence.

The Elders would go to the village in question, boast of their stronger Poro, and announce that the people would witness a miracle at a ceremony. The day before the ceremony, this metal mask was hidden under the water in the sand or clay bed of the river in the village. During the ceremony, one of the men stripped naked and jumped into the water, from which he emerged with this mask on his face. Although it is heavy, weighing four pounds (1.8 kg), it does have holes for attachments. Information regarding any associated costume is lacking.

This was taken as evidence that the powerful Water Spirit – the source of all Poro power and an essential part of all Poro groups – had given the mask (i.e. sent the Bush Spirit to man), an acknowledgment that the Elders’ Poro was stronger. This was done in the darkness of night, when the mask, because of its dull reddish patina, could not be discerned as metal (this ex-
Figure 1
Dan Face Mask
*Ku’wo*
Vonehta, Liberia
Lead Alloy
Date: 15th to 19th century
Height 8½ inches (21.5 cm)
plains why brass was not used for this full-sized mask).

After the new Poro base was established, this miraculous object was kept in the village under the control of the other village’s Poro Elders, and functioned as an oath-taking mask. Ku’wo is part of a functional set, along with a wooden mask. Like other very powerful masks, Ku’wo was preceded by, and announced by, a less powerful mask acting as its agent. The wooden mask (Ku’wo B’wou) was taken out and worn whenever the metal mask was used, thereby giving adequate warning of (and drama to) the impending arrival of the metal mask.

This autochthonous mask is one of the two rarest and most powerful Bush Spirit masks (Ge) known within the Dan Poro masking hierarchy. The Kpelle say that “the Dan make too many masks.” This is apparent from the myriad of Dan masks seen in the collections of museums, institutions, private holdings, and in the ethnographic art trade. There are publicly displayed secular village entertainment masks, ancestor masks, shrine and family masks, personal vanity masks, and a very large number of sacred Poro masks, some used publicly, some both publicly and secretly within the Sacred Grove, some only within the confines of the Bush by all initiates, and some are seen only within the Bush by privileged elders. Each Poro Bush Spirit mask has its own name; some have a public name known to the villagers, while others have a secret name known only within the Bush by initiates.

Few Dan villages or Poro centers have all the masks that may be needed for all Poro rituals, and thus must borrow (for a fee) masks (or rather masks along with their owners) from other Poro centers when necessary. Masks are danced, owned, stored by family descendants, traded, sold, replaced when damaged, and carved for sale and tourist trade. In 1931 Alfred Tulk reported, while visiting with George Harley in Ganta, that a complete mask with attachments could be produced for sale within just two days. Given this plethora of Dan masks, it is not surprising that attempts at classification by reducing them to a dozen “types”, a Western concept, has led to such creative yet inaccurate and meaningless taxonomies as seen in the literature.

Djedrej (1986:509) alluded to this, stating: “Dan masks are found all over the country because men have dreamt of them, created them, and they have been inherited from one generation to the next while all the time new masks are coming into existence in the initiation camps.”

Although this lead alloy mask was unknown to him, he went on: “There are only two or three mask types which are not traded but which, according to legend, are indigenous. Where a settlement or chiefdom has one of the great masks the official history is that the spirit was found long ago in the forest under the water of a pool or river where it was seen by one of the first settlers who then captured it and pulled it out, always after a great struggle which is said to have lasted several days. Sometimes it is added that not all these spirits (masks) are nowadays the originals but are copies of them. But each time a mask appears in the town from the forest, the original capture is re-enacted when it is pulled struggling into the settlement amid much noise, jubilation, music, and dancing. This distinction between autochthonous masks and masks acquired by trade, masks which are imported, is also the distinction between high ranking masks and low ranking masks which, in turn, is a function of the distinction between land owning chiefly lineages and the kin groups of commoners, clients, and subsequent immigrants.”

It is unknown just how widespread this mask’s geographical area of influence was. Although it came from Vonehta, Liberia, it may have been used for Poro expansion rituals among the Ivorian Dan (Yacouba), the Toura, the Touba, the Dan who live in Mano territory, as well as the far northern Wobé, whose wooden face masks are often indistinguishable from those of the adjacent Yacouba Dan. Given their interchange of masks with the Dan, usage by the
neighboring Kono of Guinea is also possible. It is also unknown if this mask is unique, or if there may be a few other extant examples that have not yet surfaced.

All-Metal Masks

This is one of the small corpus of full-sized all-metal masks known to be used among the local Poro groups, although there are many miniature Dan masks cast of brass.

An ancient brass mask from near the village of Vahn, Liberia is the most powerful of all paramount masks of the Dan Poro, their Supreme Spirit. It is the actual face of the all-powerful Spirit of the Waters, the river god himself, and is the carrier of the sacred brass pot containing blood from sacrifices and circumcisions. It was cast from brass, but the nose was formed by hammering it onto a form in wood or stone while it was still hot. The mask has attachment holes around its periphery like a wooden face mask, but it was not worn. Rather, it is essentially the very archetype of the concept of masking in tangible form. It ranks atop Ku’wo in the Dan pyramidal masking hierarchy.

A more recent and finely rendered male Dan Bush Spirit cast brass mask, its form that of a very well-carved but generic Dan face mask, is in the collection of the Musée Nationale in Abidjan, Côte d’Ivoire (inv. no. B 1146). It is remarkable in that its round eyes are filled in with a resinous material, and in the center of each eye is an embedded cowry shell. (See YVR cat. no. 0033015-01; Exhibition cat. Corps Sculprés, Corps Parés, Corps Masqués 1989:122 Figure 80). This is most likely a mid-20th century example of the above noted brass mask.

There is a pair of metal Bamana face masks of unknown elemental composition, one male and one female, of uncertain function. A cast iron two-horned Bamana mask has also been seen (V. Carini coll.).

The Muso (beautiful woman) masks of the Dyula Lô society, which were made by the Kpeene brasscasters of the neighboring Senufo, inspired the Kpelie masks of the Senufo Poro, some of which were cast of various copper alloys (Garrard 1993; Glaze 1981:233). Rarely, Senufo Kpelie masks were cast from aluminum, as well as rare copper-alloy helmet masks (B. Mignot coll.).

A copper alloy helmet mask that was found 150 km south of the Senufo in the region of Tiébissou in Baule country has been attributed to the “pre-Senoufo” (Ravenhill 1984). It is in the Musée National/Abidjan (inv. no. 54-11-2469). Of interest is its content of 1.09 percent iron, close to the Ku’wo masks’s content.

Toward the end of the Liberian civil wars (1989-2003), at a time when sacred Poro material was leaving the country, a Loma Bakorogui mask that appeared to be cast from a reddish copper alloy arrived in New York.

There are some rare copper alloy masks from the Baule, both face masks and helmet masks.

The Temne in Sierra Leone made rare hammered brass masks (Hart 1985) called “Masks of Chieftaincy” or aron arabai, which actually may have a Poro relationship, and there have appeared brass masks made for sale.

Metallurgical Analysis

PXRF analysis was carried out to determine the elemental composition of Ku’wo, but also in an attempt approximate its date of manufacture. Perhaps the most remarkable property of this heavy Dan mask is that it is made from an alloy of 96.6 percent lead, with 1.3
Figure 2
Dan Face Mask
*Ku’wo B’wou*
Vonehta, Liberia
Wood, red cloth, mammal fur, bone, fiber, power material
Height 8½ inches (21 cm)
percent antimony and 1.4 percent iron, making it the only known lead mask from sub-Saharan Africa.¹

Cast by using the lost-wax method, it had been wrongly assumed that because of its weight, color, and patina it was made of pewter, an alloy of tin with the addition of bismuth, antimony, or lead, probably obtained by melting down colonial-era pewterware. However, even the poorest quality pewterware (called ley metal) contains only 20 percent lead, and organ pipe metal contains at most about 40 percent lead (Masse 1921:18). Beginning at least as far back as the late 1720s some British manillas imported into West Africa had varying amounts of lead added to the mix, which gradually increased over time. The lead content approached 25 to 30 percent in later years. However, these manillas were made of a copper-lead alloy, sometimes hardened with arsenic (Herbert 1984:202).

Based upon its elemental composition as determined by X-Ray fluorescence, it appears that this mask was cast from a manufactured lead-antimony alloy. Antimony has long been used to harden lead. The use of antimony dates back more than 5000 years. The ancient Egyptians used kohl, a naturally occurring sulfate of antimony, as an eye cosmetic. The addition of antimony to lead dates to the mid-15th century. When Gutenberg and others began using cast metal printing type in the mid-15th century, antimony was added to the lead to harden it (Butterman 2004:4). One military use also appeared in the 19th century when the British General Henry Shrapnel used a brittle lead alloy hardened with 10 to 13 percent antimony for the spherical bullets contained in a new antipersonnel artillery shell. These were much used in World War I. Some type metal used in the 18th-19th century consisted of 80 percent lead and 20 percent antimony, but there was one alloy of “hard lead” that was 97.7 percent lead with only 2.3 percent antimony, a formula closer to the low antimony content of this Dan mask (Wang 1919:150).

Because of lead’s density, malleability, softness, and lubricity, it has long been used in the manufacture of ammunition. However, pure lead causes fouling of gun barrels and is easily deformed. Therefore, antimony is added to lead in small amounts to give it greater hardness (Blaskett and Boxall 1990). American lead shot pellets contain up to 8% antimony and 2% arsenic, whereas the hardened lead in bullets contain up to 2% antimony, a mix even closer to the low antimony content of this mask.²

Poro groups along the Upper Guinea Coast not only had access to imported colonial ammunition, but they also used spent steel and brass firearm cartridge casings as additions to their Bush Spirit masks and in power objects (“medicine”). Thus, using lead alloy from melted bullets as a medium for Ku’wo, as valuable as it might have been or difficult to obtain, makes perfect sense for a mask that needed to be heavy, dull, resistant to corrosion, and powerful.

If the mask’s alloy was obtained from one homogeneous source only, it was likely cast from melted colonial era bullets. However, the mix could have included various sources of lead, ranging from pure lead to lead alloys with a high antimony content, ultimately resulting in the low antimony content of only 1.3 percent in this mask. In a series of over 600 assays on metal or metal-containing Poro objects, this intermixture of source metals was frequently encountered.³ As an example, the traditional sources of brass among local groups were imported brass manillas, kettles, and other objects used in the slave trade. However, the elemental composition of these imported objects varied widely, as do the contents of the West African items cast from them. One Nitien (“Kru ring”) even had a trace of gold thrown into the mix by its brasscaster (DeCredico coll.).

Dating this mask is problematic. When exposed to water, soil, or air, lead develops a grayish dull coating of lead carbonate and lead oxide. Because these compounds form extremely slowly and rarely dissolve in water, they act as a protective barrier to further decomposition. Thus lead only corrodes at about one mil-
limeter per millennium (Reich 2003). Since there is no accepted scientific method for accurately dating lead, all that can be said is that this mask may have been cast anytime from the Portuguese arrival in the 15th century (lead was not present in West Africa prior its introduction by the Portuguese) to the 19th century.

The source of the iron must be addressed. Lead and iron are insoluble in each other at all temperatures. Also, pure lead melts at 328 degrees C and a bit lower with added antimony. Pure (carbon-free) iron melts at 1535 C. Hence any iron added to a pot of molten lead will not dissolve (Killick 2011).

The small amount of iron detected in the pXRF analysis is likely a contaminant, since the mask would have been cast by one of the very few Mande blacksmiths who had completed a long apprenticeship to also become an accomplished brasscaster (McNaughton 1988). Iron contamination from his tools and forge was unavoidable. Similarly, small amounts of iron have been detected in several brasscastings from this region.

The reddish tint of the mask’s oxidative surface appears due to repetitive applications of camwood, and not hematite (iron ore). This may have been the strong red dye prepared from a decoction of the heartwood, bark, and roots of the indigenous camwood tree (*Baphia nitida*), or from powdered camwood itself. Besides its usage in traditional medicine, camwood has long been applied to sacred sculpture to symbolize Poro ownership and power. Red, the color of the Poro, can also be added to sculpture as red cloth, natural pigment, paint, red seeds, and beads (Cardon and Jansen 2005).

Figure 2 shows the agent mask for Ku’wo, the previously discussed lead mask. It must be mentioned here since it is such an inseparable part of Ku’wo’s important sociopolitical ritual (CFT coll. Catalog no. P0111b).

Along with the lead mask, this wooden mask is part of a functional set. Called *Ku’wo B’wou*, it acted as the agent for the very powerful metal one, announcing its arrival and allowing adequate time for preparations.

The red on the faces of both the lead mask and this one indicates that they are “hot with Poro”, and are both very powerful and dangerous Poro Bush Spirits. It sends the message that the penalty for anyone who transgresses Poro laws is death (usually by poisoning). The tan strip of mammal skin over the upper lip originally was a furry moustache. The beard is made from fine plant fiber and the long, gently curving, tapered teeth are fish spines or bones, relating again to the Water Spirit’s home in the river. One tooth has been replaced with aluminum, probably in the early 20th century after the introduction of aluminum to West Africa, but the wooden mask may be from the 18th or 19th century, and may be a replacement for the original one. The flaking encrustation has accumulated over many generations of ritual use. An iron nail on the head is for the attachment of its costume.

**Notes**

1. Elemental analyses were performed utilizing X-Ray fluorescence with a calibrated Niton XLT898He.


3. PXRF analyses to determine the elemental composition of 600+ metal and metal-containing Poro objects were performed in 2009. The objects included examples in the collections of the Haffenreffer Museum of Anthropology at Brown University, the Nasher Museum of Art at Duke University, the
American Museum of Natural History, as well as several private collections in the US, New Zealand and the UK.

References Cited


