Archives in Iron: Re-evaluating the Historical Context of *Minkondi*

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Introduction

Minkondi are some of the most celebrated African objects in art museums throughout the world. These notable examples of Central African sculpture combine intricately carved figurative forms with assertive poses and a complex aesthetic. Most striking however, are the dense masses of iron nails, blades and other implements that often blanket these objects. Indeed, it may be preferable to call them “nail figures” in their museum setting rather than minkondi, as not all minkondi were studded with nails, and not all nail figures were used as minkondi (Janzen & MacGaffey 1974: 88; Lehuard 1980). Since the beginning of the 20th century, these objects have been displayed as quintessential examples of Central African culture and aesthetics (Thompson 1978: 201). It is unsurprising that nail figures have found a place in the museum canon of traditional African art.

Nearly all nail figures in collections were obtained from communities in the Lower Congo and Loango coast area during the colonial period between 1885 and 1960 (Fig. 1). During this time, African communities were in the midst of great social upheaval. Centuries of Atlantic trade culminated with the direct and sudden imposition of European rule. France occupied the Loango coast near its long-standing interests in Gabon. King Leopold II of Belgium lay personal claim to a huge swath of Central Africa surrounding the Congo River. Perhaps even more than other colonial powers, his aims were purely economic and extractive. Wealth was created through brutal systems of forced labor to obtain ivory, palm oil, and rubber. Despite differences in colonial government and policy, each system had the effect of social, political, and economic disruption.

Despite the turbulence of the period from which they were collected, nail figures are thought to reflect of a much more deeply rooted artistic tradition. It has been suggested that nail figures were in use at the beginning of the 19th century, and possibly even earlier (Volavkova 1972). A difficulty in identifying historical references to nail figures is the ambiguity of how African ritual practices were described. The great variety of spiritually animated Kongo ritual objects, termed minkisi, astonished Europeans who often described them in disparaging terms (ibid: 52). Though providing some details of the form, function, and use of these objects, most early European writers knew little of their cultural and ritual meaning. They knew even less of how these objects, practices, and meanings had developed. They simply assumed that the practices they observed were the unchanged life ways of primitive peoples, a view retained well into the 20th century (Fugelstad 1992). This paper re-evaluates the historical context of nail figures and dynamically places them in relation to Atlantic trade, European colonialism, and social ruptures of the late 19th century. I analyze the materiality of these objects in an attempt to heed calls to examine alternative archives and sources for Central African history (MacGaffey 2005; Hunt 2008). I argue that while nail figures are related to a long tradition of ritual practice involving minkisi, they are specifically associated with the social and economic conditions following 1870. Most, if not all, nail figures thus reflect the dramatic transitions of the period, and not an imagined cultural identity stretching back to antiquity.

Nail Figures and Minkisi

The growth of colonial ethnography at the end of the 19th century led to a clearer understanding of minkisi and their role in Kongo communities. Following the Berlin Conference of 1885-1886, European governments sent an army of administrators, soldiers, and explorers to Central Africa. They joined the missionaries and merchants that had been operating on the
Atlantic coast for centuries to document the new colonies and their inhabitants. Crucial to the colonization effort were the ethnographers that recorded the peoples encountered, often with the explicit aim of describing their languages, laws, and ritual practices in order to more successfully subjugate them (Fabian 2000). Many ethnographers saw European hegemony as inevitable even without their participation, and that their mission was one of documenting a disappearing way of life—a kind of “salvage ethnography” (Gruber 1970; cf. Clifford 1986: 112-113). One of these ethnographers was Karl E. Laman, whose substantial treatment of philosophy and ritual practice in the Lower Congo makes his work an invaluable source of information on minkisi, including nail figures (Janzen 1972; MacGaffey 1986a). Another important source was the trader-cum-anthropologist Richard E. Dennett, who collected a range of ritual objects and other pieces of material culture from the Loango coast (Fig. 2). Their efforts to preserve the material culture of Kongo communities led to hundreds of minkisi winding up in overseas museums and private collections (Schildkraut & Keim 1998). Chief among these were the large nail figures that entranced, confounded, and reviled European audiences.

Reviews of historical and anthropological sources have already detailed the essential features of nail figures and range of variability, as well as their potential use as minkondi (Volavkova 1972, 1974; MacGaffey & Janzen 1974; Bassani 1977; Thompson 1978; Lehuard 1980; MacGaffey 1990, 2000a; Lagamma 2008). I will briefly summarize the cogent points below, but note the critical caveat that nail figures, like other minkisi, were used creatively and socially, and not necessarily prescriptively (MacGaffey 1988, 2001). Most nail figures in museum collections are anthropomorphic or zoomorphic, ranging from one-third meter to just over a meter in height. Anthropomorphic figures are often posed aggressively, with hands on hips or upraised to hold a weapon, while zoomorphic figures are of predatory animals like dogs. Minkondi had variable functions, but generally were used to enforce oaths and transactions through threat of retribution, declare legal statuses, punish witches and other malefactors, and protect supplicants from the same. They served as legitimizing sources of power in Kongo communities, as well as an index of the shifting social relations within (MacGaffey 1977: 181-182). As minkisi, nail figures were rendered potent in part through the application of bilongo—animating substances often attached near the umbilicus. An nkondi was roused to action through ritualized hammering of nails, blades, or other objects into the sculptural body. The efficacy of this arousal could be increased through a myriad of other actions, some made material and apparent by the addition of secondary sculptural elements, fiber knots, chains, paints, body parts, and various other organic substances.

The practices outlined above are an approximation of how nail figures were used. It is a pastiche assembled from many written accounts spanning the colonial period. While specifically referring to nail figures, the basic schema of combining a material form with an animating spirit to produce extraordinary effects is more widespread. Indeed, this is a basic organizational principle of ritual practice in the area going back to the earliest written records (MacGaffey 1986b). The act of hammering iron nails into a sculptural body, however, is more temporally circumscribed. Iron nails were not used in early Central African architecture and construction practices, though iron has been produced and used in the region for millennia. At the very least, hammering iron nails must have begun with the introduction of the Atlantic trade. It has been suggested that wooden wedges, bone points, or thorns were used earlier and that these were
replaced by European nails (Thompson 1978: 212). Volakova (1972: 55) identifies an 1816 account by James K. Tuckey as the first direct reference to a nail figure. An earlier 16th century account, reported by Olfert Dapper, also describes nails being used to arouse an *nkisi*, which Janzen and MacGaffey (1974: 88) tentatively associate with the use of nail figures as described above. Many scholars have cited the visual similarity between the nails and crucifixion imagery, suggesting the origin of nail figures lies with the early Catholic missions that diffused throughout the Kongo Kingdom in the 16th century (Volavkova 1972: 55; Bassani 1977: 36; Fennell 2003: 16; Reinius 2011: 409). This evidence, however ephemeral, has led to a general sense among scholars and curators that nail figures are simply manifestations of a continuous Kongo culture. From a perspective of cultural continuity, it follows that descriptions of exhibited nail figures have largely focused on their function within an imagined and idealized Kongo community (e.g. Beumers & Koloss 1992; MacGaffey et al. 1993; Meier & Silverman 2012; Cooksey et al. 2013; Neyt 2014). Though the functions ascribed to nail figures are most likely accurate, the way nail figures are presented subtly reinforces the central myth of salvage ethnography: the practices of Central African peoples encountered during colonization were essentially timeless and therefore a suitable proxy for a static past.

There are several reasons to reject this myth. First, though the underlying philosophy of *minkisi* has deep roots, its actual practice was fluid and sensitive to the shifting demands of society (MacGaffey 1977: 177, 1990: 57). There is no compelling reason to believe that specific material forms and associated practices were required and reproduced for centuries. Indeed, the whole structure of ritual practice in Kongo communities accommodated and even promoted radical changes (JANZEN 1977). It is not surprising, then, that specific practices in the past were short-lived, discontinuous, and regionally specific, as described for more recent ritual practice (Hersak 2001). The kinds of *minkisi* bristling with nails during the colonial period do not inherently have a connection to the kinds of *minkisi* from centuries earlier. Secondly, the idea that iron nails were merely substitutions for other implements should likewise be rejected. This idea posits a false technological evolutionary scheme, as pointed iron implements were already being made in Central Africa. Further, it completely ignores the differences in meaning between metaphorical and metonymic associations specific to iron and those specific to wood, bone, or vegetal material. Iron nails do seem intrinsically linked to *minkondi*, as virtually all nail figures in collections contain European manufactured nails¹. Thirdly, there are no clear reference to nail figures prior to the 1870s. The 1816 account referenced by Volakova does not actually reference nails, but ambiguously described “bits of iron” (Tuckey 1818: 180). This is an important distinction, as manufactured nails have very specific forms closely linked to the history of European industrialization. “Bits of iron,” on the other hand, could refer to any number of iron products created and used entirely within Central African contexts. Whatever they were, it is very unlikely that these iron objects resembled what we see today studding the bodies of museum nail figures, the reasons for which I will describe below.

The earliest account making specific reference to European-style nails being hammered into *minkisi* is from the German expedition to the Loango coast in 1873 (Bastian 1874: 176-180). Later in the decade, Dennett more closely observed the hammering of nails and other practices surrounding various *minkondi* (Dennett 1887: 62-69, 1902). Typical of his time, Dennett believed that the practices he witnessed were part of an ancient and enduring tradition. What
does it mean that the first concrete references to minkondi occur at the same time that European colonization is increasing? Is this a product of circumstance, that there are simply more literate observers to provide written accounts of material practices, or is this because the use of minkondi is linked to European expansion? To argue the former implies that Africans were somehow inured to the global entanglements of their time. Instead, I argue the latter: minkondi reflect the active engagement of these Lower Congo and Loango coast communities with increasing social and political instability as it developed in the late 19th century.

In the remainder of this article, I will outline a method for identifying the historical context of nail figures through a formal analysis of the eponymous nails. This method links the nail form to the history of their manufacture in Europe and subsequent trade into Lower Congo and Loango coast communities. The ubiquity of European manufactured nails in nail figures is evidence that the practice of hammering nails into minkisi grew in tandem with the increased availability of European industrial products in the 19th century. In addition, the types of nails most frequently observed suggests that nail figures were most intensively used only after 1880. With this chronology in mind, I argue that the use of nail figures in mitigating inter-community conflict is not indicative of an enduring ancient socio-political form, but one that was a direct response to the ruptures of colonization.

The Age of Iron

Though the term “nail figure” is preferable in this instance to minkondi, as the concern here is the formal characteristics of the objects, it is still somewhat of a misnomer. Many nail figures contain a range of iron implements other than nails, including other kinds of manufactured hardware, knife blades, spear and arrow points, currencies, and ambiguous “bits of iron.” Kongo peoples may have recognized the differences between these implements as functional, with nails and blades representing different severities of invocation, or different metaphorical associations (Lehuard 1980: 188; MacGaffey 2000b: 247). Differences may have also resulted from local economic conditions, with imported goods like nails and blades substituting for locally made iron implements when available or vice versa. In any case, iron implements were central to the activation of the nail figure by provoking the residing spirit and representing the violence intended for its victim (MacGaffey 2000a: 64-65). The choice of iron was not incidental to this practice. Like the banganga that operated minkisi, blacksmiths invoked spirits whose benevolence made their craft, and thus agricultural society, possible (MacGaffey 2000b: 81, 144). Indeed, throughout Central Africa blacksmiths and their products have been attributed an elevated status based on their connection to spiritual powers (De Maret 1985).

The history of iron production in Central Africa begins with the introduction of smelting technology around 500 BC (Childs & Killick 1993: 321). This is a conservative estimate, with some archaeological evidence for iron production as early as 2000 BC (Killick & Fenn 2012: 565). The social and ritual contexts of early iron production in the Lower Congo and Loango coast areas are largely unknown because archaeological research has progressed more slowly here than in other parts of the continent, though the pace of research has picked up in recent decades (e.g., Clist et al. 2013; Denbow 2014). From the archaeological evidence, it is certain that iron production was well established by the time Europeans came to the area.

Kongo communities, like many Central African societies, were reliant on blacksmiths to produce agricultural tools. Iron could be smelted locally, but the mobility of iron tools and iron producers, as well as extensive trade networks, allowed for a geographically diffuse economic system (Kriger 1999: 68). Technical knowledge of iron production was likewise diffuse, though
not widely known. Methods for constructing furnaces, processing ores, and conducting smelts were kept secret among workers, as well as the appropriate medicines and invocations to ensure success (ibid: 74). In addition, workers were often sanctioned by central political authorities, particularly during the zenith of the Kongo kingdom, which further restricted technical knowledge. Despite this secrecy, the potency of iron and its relationship to ritual practice was more widely understood throughout the region. In large, public rituals iron was prominently displayed as part of the symbolism that communicated political authority (Hebert 1993: 131; MacGaffey 2000b: 188; Blakely 2006: 180). More subtly and frequently, however, iron was part of the everyday creation of values that fueled local political economies. Iron was transformed into several types of currencies that circulated throughout Central Africa, along with currencies in other materials including copper, shell, and cloth (Gayer 1993: 243; Kriger 1999: 89). Some of these currencies were abstracted objects used only for payments, but others were simply practical tools and tool blanks. The huge variety of currencies circulating reflected the complexity of overlapping social and economic networks in Central Africa. The physical differences among currencies were bounded, however, by their practical requirements.

Iron stems, in addition to circular and P-shaped currencies, knives, and hoe blades, are all observed embedded alongside nails in minkisi (Lehuard 1980: 188). Iron was certainly a powerful and prevalent material in the ritual practices of Lower Congo and Loango coast communities.

Iron and ritual practice developed out of the millennia old traditions of blacksmithing in Central Africa. However, it was also heavily influenced by the currents of European trade. Since the arrival of the very first Portuguese explorers and merchants in the late 15th century, metal was a staple of the trans-Atlantic trade. Though the early trade was mostly in copper products, large quantities of iron began to be imported by the 17th century (Alpern 1995: 12-13). By the beginning of the 19th century, so much iron was being imported that it was thought to have displaced much of the local industry in West Africa (Flint 1974; cf. Goucher 1981). A scarcity of iron in Central Africa led to importation there as well, though as in West Africa the quality of locally produced metal remained high (Kriger 1999: 88). Arguably the most resounding effect on Central African iron production was not direct competition from European iron suppliers, but the general reconfiguration of currency, labor, and value in the 19th century (ibid: 234-235). Colonial rule imposed European currencies as a ubiquitous monetary instrument, cutting iron producers out of their role as creators and exchangers of wealth. Further, while locally produced iron was often superior in quality, European iron could be cheaper. This was especially true of finished goods, such as blades and hardware, which could be mass-produced in European factories at very low cost. The iron implements found in nail figures must therefore be considered as objects with a dual heritage to both Africa and Europe.

Archives in Iron

It is no secret that much of the Central African art in collections lack documentation describing their origins (Maurer 1999). Collection dates are often ascribed to a general range, if known at all, and that is to say nothing of when they might have been created or used in a Kongo community. This documentary silence is all too common for historians working in colonial contexts, where records and archives were created that did not necessarily serve local interests or record events from indigenous perspectives (Stoler 2002; Tough 2009). Fortunately, the material
forms of nail figures can provide details lost to the written word. The composition of *bilongo*, for example, may reflect the social conditions surrounding its *nkisi*’s initial deployment (Lehuard 1980: 149; MacGaffey 1990: 51). Similarly, the removal of *bilongo* and other animating materials, like eyes, reflects conditions surrounding its removal from society—or perhaps, more accurately, its transformation from *nkisi* to art (MacGaffey 1990: 54). With birth and death accounted for in the object’s biography, the nails represent its life events. Hypothesizing that most nail figures were *minkondi*, each nail would represent a maligned social actor or envisioned misfortune requiring a powerful *nkisi* to be invoked. These problems ranged widely, and included political disputes, uncertainty surrounding changes in legal status, debt litigation, theft, and witchcraft (Thompson 1978: 212). MacGaffey (2000a), however, makes the case that all of these problems are connected, in that their resolution would fall under the purview of chiefly authority. Like chiefs, *minkondi* facilitated inter-group relations by establishing an external source of power to punish malefactors, and thus guarantee some level of trust and cooperation. Each invocation of an *nkondi* implies a degradation of inter-group relationships, or at least the perception or anticipation of such. Each nail, then, is material evidence of past socio-political instability. If dates can be assigned to when nails were embedded, then periods of instability can be anchored to an actual chronology. Studies of the transformation from ritual object to art have already yielded critical insights in colonization in Central Africa (Schildkraut & Keim 1998). I propose that nail figures can once again be transformed—this time from art to archive.

The variety of iron implements embedded in nail figures is a central part of their current aesthetic appeal. These implements were initially chosen for their physical, visual, economic, and metaphorical properties. However, this choice was also constrained by availability, as many of these implements, and even the raw materials itself, were obtained through the trans-Atlantic trade. Availability was further limited to what was being currently produced by manufacturers in Europe. Manufacturers were in turn limited what could be produced by commercially-viable technology. Thus, the entangled web of trans-Atlantic trade meant that the Kongo use of nails in nail figures was as much constrained by the changing pace of European industrialization as by the traditions and innovations of *banganga*.

Archaeologists working in 19th century contexts have identified several formal characteristics of nails that are linked to temporally-restricted nail-making technologies (Wells 1998; Adams 2002; Middleton 2005). Lehuard (1980: 147) correctly identified that nail forms changed through time, with machine-cut nails replacing hand-forged nails, which in turn were replaced by wire-drawn nails toward the end of the 19th century. However, his typology was not sufficiently detailed to be practically applicable, in part because archaeologists had not yet worked out the seriation themselves. A crucial theoretical advancement was the identification of the technologically derived formal properties of nails (Wells 1998). Nails change through time as a function of how they were manufactured. As such, the formal characteristics that are chronologically sensitive are thus derived from manufacturing technology. Though some features, such as the length of the shaft or the style of the head, may be important for the function of the nail, they are not chronologically meaningful if they are not derived from temporally restricted manufacturing technologies. The chronologically meaningful characteristics include the uniformity of the head and shaft; shaft cross section and taper shape; heading method; shape of the point; orientation of cutting burrs; and use of either iron or steel (ibid: 89). Unfortunately, nail figures do not typically present ideal conditions for their analysis. Curators and conservators are unlikely to allow embedded nails to be removed so their points can be inspected, nor the prized patina of rust removed so that burr orientation can be identified and the use of iron or steel
ascertained. These limitations can be made up for by the use of advanced technologies, which I
will touch on briefly at the end of this article. However, simple measurement and visual
inspection can adequately record enough features to discern between three major nail types:
hand-forged nails, machine-cut nails, and wire-drawn nails (Fig. 3). Each of these types is linked
to a successive, though overlapping, periods of manufacture. There is immense variability within
these three types, but many different lengths, thickness, heading styles, and so on are often
related to function and regional variation, which are not necessarily sensitive to changes in
technology through time (ibid: 87-88). This leaves the characteristics important for analysis as
uniformity of the head and shaft, heading method, and shaft form, with the last being the most
easily identifiable.

Hand-forged nails make up the oldest nail type. In this method, iron preforms are cut to
length, heated, hammered to a point, and then headed. Because these nails are handmade by
blacksmiths without specialized technology, they are the most variable in size and head style
(Wells 1998: 82). They are, however, typically square in cross section with each face of the shaft
tapering to a point. The angle of taper can be uniform, but often is not due to the idiosyncratic
manufacture of each nail. Head styles are also idiosyncratic, though commonly have four
hammered faces in a pyramidal or “rosehead” shape. Despite Central African smiths having the
technical capabilities to produce nails, there is no evidence that they were used in construction
prior to the 19th century. The earliest hand-forged nails, then, would likely be of European
manufacture. However, hand-forged nails were labor-intensive to produce and therefore costly. It
is unlikely that profit-minded European merchants would import expensive nails when cheaper
bar iron would be acceptable, if not preferred. This leads to the conclusion that while the earliest
nails are European in origin, later hand-forged nails may have been produced by African smiths,
either for European consumption or to imitate later machine-cut nails.

Beginning in the late 18th century, nails started to be manufactured with industrial cutting
machines. These cutting machines fed iron plates through engine-driven rollers at an even rate,
allowing mechanized or hand-operated shears to easily cut the plates along their width into
standardized nail sizes (Fig. 4). The iron plates were also sheared at an angle on their face so as
to form a triangle—the small end serving as the nail’s point (Wells 1998: 83). The length of the
nail would be the width of the plate, and the nail’s thickness would be the same as the plate’s
thickness. The automation of production drastically reduced nail prices, eventually leading to
machine-cut nails displacing hand-forged nails as the most commonly produced nail type by
1820 (ibid: 84). Machine-cut nails are typically square in cross section, but have one pair of
tapering faces, and one pair of parallel faces. The earliest machine-cut nails were still headed by
hand, but by 1820 the process was fully automated. Machine headed nails come in a variety of
forms related to their function, but typically have fewer faces and are flatter than hand headed
nails. The first nail industry to adopt machine technology was in the US, with other national
industries not automating until well into mid-19th century (ibid: 88; Adams 2002: 70; Sjögren
2013: 42). Because machine-cut nails were not commonly manufactured until 1820, this is the
earliest probable date for their arrival in the Lower Congo and Loango coast areas.

At the same time that machine-cut nails were becoming popular, a new method of
making nails by cutting lengths of iron wire was developed (Adams 2002: 70). Wire-drawing is a
labor-intensive practice wherein heated iron is pulled through successively narrower openings
until the desired gauge is achieved, the resulting wire cut into lengths, and the ends ground to a
point (Wells 1998: 86). Though they are not as strong as machine-cut nails and more expensive,
they could be produced when nail plates were unavailable. Wire-drawn nails are round in cross
section and do not taper, except for at the point. Small wire-drawn nails, less than 1 cm in length, became common in France and Belgium by the late 1850s where they were used to construct cigar boxes and furniture (Adams 2002: 70). However, machine-cut nails remained dominant among British and American manufacturers, as well as by nailers producing for trades where larger nails were required. Wire-drawn nails became increasingly common after new methods of steel production were developed in the 1870s and 1880s (ibid: 69). Unlike iron, steel was well suited to wire production. Steel wire-drawn nails are also stronger than their iron counterparts and were cheaper to produce than even cut nails. These advantages helped wire-drawn nails increase from a negligible percentage of US nail manufacturing in 1880 to over 80% by 1900 (ibid: 73). By 1915, wire-drawn nails accounted for 95% of all manufacturing. Though figures for other national industries are not available, the same technological innovations in steel that spurred US production would have had similarly timed effects throughout the industrialized world. New manufacturing technologies diffused rapidly between countries and regions, but differences in the culture and organization of labor produced variations between national industries. French and Belgian manufacturers adopted wire-drawing technology earlier than their British and American counterparts (Sjögren 2013: 55-56). This would suggest that the African ports trading with France and Belgium adopted wire-drawn nails in the mid-19th century. However, cargo entering the Lower Congo and Loango coast area, regardless of the carrier’s nationality, was dominated by British trade goods, particularly in the hardware sector (Vos 2013: 84). It is not until after 1886 that Leopold II’s near monopolization of trade would make Belgian wire-drawn nails ubiquitous, and by then British manufacturers had largely converted to wire too.

Understanding how the technologically derived features of nails have changed through time gives a close approximation of how early different types of nails could have been embedded into minkisi. This chronology gives the following ranges: wire-drawn nails could have been added after 1850, but most likely not until 1880; machine-cut nails could have been added after 1790, but most likely not until 1820; and hand-forged nails could have been added at any time after 1500. It is important to stress that these are only the earliest possible dates, as old nails could have been used even after newer forms were being manufactured. Nails from old figures could be removed and repurposed in new minkondi, obsolete nails may have been shipped to African markets if they couldn’t be sold in Europe, and it is even possible that nails circulated as a kind of iron currency before being deposited in an nkisi. In addition, the earliest type of nail, the hand-forged nail, could have been produced by African smiths at the same time that European hardware was being imported. Hand-forged nails originating with African smiths may have square cross-sections like their European counterparts, but since they were not used for construction purposes their forms are likely to be even more variable. This includes shafts with fewer or more than four sides and rounded shafts mimicking wire-drawn nails, though not likely produced through a drawing technique. It is very likely, therefore, that even the most recent examples of nail figures will contain a mixture of the major nail types outlined above. Further, nail figures were likely used over a period of many years. It is expected that those used during periods of technological transition, particularly the period 1880-1900, will contain old and new nail forms. Assuming that nails were embedded in pace with technological changes, nail figures with higher proportions of wire-drawn nails are more likely date to the later part of the 1880-1900 (Adams 2002: 72). Probabilistically, ratios of nail types in nail figures should align temporally with nail production ratios. A tentative estimate is that nail figures with more than
50% wire-drawn nails post-date 1890 and nail figures with more than 90% wire-drawn nails post-date 1900.

**Reading the Archives**

Each nail represents an invocation of the *minkondi*—and each invocation a response to some dramatic event in society. With the technologically derived features of nail providing the reference for these events, *minkondi* become a sort of archive for the community where they were employed. It is important to understand the proper historical context of these objects, particularly as they held up as emblematic of traditional Kongo societies and their ritual practices. Were the events recorded by *minkondi* the kinds of social problems that troubled villages for centuries, or were the events unique to the conditions of the 19th century? The exact nature of each event will probably never be known, but the formal properties of *minkondi* can be probed, like a material archive, to reveal a Kongo perspective on the 19th century not often recorded in the written records of the time. The last part of this article attempts to read two such archives: a nail figure from the University of Michigan Museum of Art (Fig. 5), and a second nail figure from a private collection in the United States (Fig. 6).

In its most recent past, the nail figure in the permanent collection of the University of Michigan Museum of Art was donated to the museum in 2005 by the collector Helmut F. Stern. The nail figure was sold to Stern, as was most of his African art collection, by the dealer and scholar Marc Leo Felix, who in turn had acquired it from a chain of dealers going from Philippe Ratton back to Aaron Furman and finally to the collection of Jean Viega (Batulukisi 1999: 71). But like many African art objects, it lacks the provenance records that should detail its African origin and initial collection. Some details, however, can be gleaned from its style. Batulukisi (ibid: 77) describes the nail figure as an *nkondi* and attributes it to mid-19th century Vili peoples of the Loango coast, based on its protruding tongue. The figure is anthropomorphic and displays a *vonganana* posture with hands on hips, signifying its readiness (MacGaffey 1993: 44). The readiness of the pose is countered by the absence of its animating features. A circular patch of missing patina at the umbilicus indicates that *bilongo* was affixed here. The *bilongo* may have been damaged during its collection, transport, or handling once in a collection, but it may have been removed in Africa. After the *nkisi* was no longer needed or its effectiveness had dissipated, its *bilongo* may have been removed by an *nganga*. Eyes are another animating part of the *nkondi*. They can be carved, but are more often created by inlaying pieces of glass, mirror, or porcelain into carved orbits (Lehuard 1980: 129). Unlike *bilongo*, their positioning protects them against damage and accidental removal. The missing eyes of the UMMA *nkondi* indicates that they were intentionally pried out—an implication about its functional end in a Kongo community that can carried over to the absent *bilongo*.

A range of implements have been embedded in the UMMA *nkondi*. To accurately categorize and quantify these implements, each one was given a unique number according to the part of the body it is embedded in. Each implement was then designated as either a nail, blade, or “other” based on its general shape. Blades and “other” implements were then further categorized according to their shape and presence of other features such as holes or cutting edges. Nails were classified according to the presence or absence of shaft and head uniformity, cross-section shape, and number of tapering faces. These measurements were then used to infer the technology of production used—hand-forged, machine-cut, or wire-drawn—based on the criteria given above. All metal implements were identified as being made of either iron or steel. The presence or absence of fiber, cloth, and/or hair attachments was also noted for each implement.
The objects embedded in the UMMA nkondi consist of 64 blades, 97 nails, and 26 other implements—totaling 187. In addition, there are 16 holes where implements were removed, of which 12 are small circular holes characteristic of nails and the remaining 4 are linear holes characteristic of blades. The blades consist of flat pieces of metal with either parallel or tapering sides and at least one cutting edge. The other implements are varied in their form, and include 17 P-shaped metal objects, at least one metal spear point, indeterminate metal fragments, and even a single wooden shaft. The P-shaped objects may be a type of iron currency that took the shape of a generic tool preform (Lehuard 1980: 189; Kriger 1999: 93). The nails conform to the three major types: 8 hand-forged nails, 37 machine-cut nails, and 46 wire-drawn nails. In addition, there are 6 nails that while recognizable in size and general shape as such but could not be conclusively assigned to any type. All but one of the machine-cut nails had the uniform heads indicative of machine heading. The range of nails hammered into the UMMA nkondi is consistent with usage after 1880, while the high proportion of wire-drawn nails—approximately 50% of identifiable nail types—pushes this date closer to 1890. This date is at odds with the style-based estimate of mid-19th century given by Batulukisi. Though a difference of a few decades may appear inconsequential at first glance, it is important to consider the use of this nkondi against the backdrop of colonialism and the split between pre- and post-Berlin Conference Central Africa.

The second archive examined in this article tells a slightly different tale. Before being held in American private collections, the nail figure was part of several in Europe. An appraisal by Raoul Lehuard described the object as an nkondi and traced its ownership back to the collection of Lambat, an engineer who worked on railway construction projects in Portugal as well as on the Eiffel tower. Like the UMMA nkondi, this features the assertive vonanganana posture and dense mass of iron implements. Unlike the UMMA nkondi, this still has its umbilical bilongo and eyes intact. The same methods described above were employed to characterize its iron implements: 336 nails and 40 other implements—totaling 376. In addition, there are 23 holes where implements were removed, all of which are probably from nails. No blades or their characteristic linear holes were observed, perhaps indicating that this nkondi had a more restricted use than has been hypothesized for other examples of minkondi. 22 of the 40 other embedded implements are rectangular, unheaded shafts that could not be positively identified as either hand-forged or machine-cut nails, but are otherwise nail-like in form. One P-shaped currency-like object was recorded, while the other varied objects were non-nail hardware or indeterminate metal fragments. Of the nails, there are 6 hand-forged nails, 256 machine-cut nails, and 74 wire-drawn nails. 19 machine-cut nails had irregular heads indicative of hand heading, and another 2 were unheaded altogether. Probabilistically, the ratio of machine-cut to wire-drawn nails would suggest a creation date as late as 1888 (Adams 2002: 73). However, this determination assumes that all nails were inserted simultaneously—a very unlikely assumption. Instead, the ratio should be taken to mean that the terminal usage of this nkondi falls in the 1880-1890 range, but that it was used over some period prior to that. This period could be many decades, as the range of nails hammered into this nkondi spans the entire 19th century, from pre-1820 hand headed machine-cut nails to post-1880 wire-drawn nails. However, the “old nail” problem confounds an attempt to assign a beginning use date.

These minkondi can be interpreted as archives chronicling events in two Kongo communities. With the typological tool described above, these archives can be read to reveal contextualized patterns in ritual practice and social instability. The UMMA nkondi’s low number of implements but high ratio of wire-drawn nails to machine-cut nails suggests a brief, but
intense usage in the late 19th century. The range of implements, including nails, blades, spearheads, and a wooden peg highlights the variable and creative process of its usage—perhaps pointing to a community and nganga trying out novel ways to effect change in a period of intense destabilization. Contrasting with this, the second nkondi has a much higher number of implements and a lower ratio of wire-drawn nails to machine-cut nails. This may be due to a lengthier, but lower intensity, usage. The more restricted range of implements may indicate that the figure was used in a more regular or systematic way—indicating that the established process of invoking and provoking the nkisi was producing the desired results.

A close examination of their nails shows that both of these minkondi were in use at the end of the 19th century. It does not, however, determine when they were first used. It may be that the nkisi described by Tuckey was, in fact, an nkondi and that the practice of hammering nails was current in the early 19th century. The majority of machine-cut nails in the second nkondi examined above entertains the possibility of its use at that time. However, it is interesting that the nkondi was frequently invoked after 1880. This is particularly apparent for the UMMA nkondi, where the majority of nails are of the late wire-drawn type. Though the UMMA figure has fewer implements overall, it has a higher ratio of wire-drawn nails to machine-cut nails. One explanation for the large quantity of wire-drawn nails may be that these nails were relatively inexpensive after 1880, and therefore the material cost of using an nkondi became lower. If nails were the primary expense of hiring an nganga and invoking the nkondi, then more and cheaper nails could have resulted in greater access by poorer members of the community. This is unlikely, however, as the nail represents only a small fraction of the total costs paid to the nganga for materials and service (MacGaffey 2000b: 111-112).

A more likely explanation is that there was greater demand for minkondi services after 1880. As European conquest expanded after the Berlin Conference, African communities throughout the continent were faced with threats to their political organization, economic livelihoods, and social institutions. Minkondi were one response by Lower Congo and Loango coast communities to these threats. Minkondi and associated ritual practice functioned as a kind of social arbitrator in a decentralized political environment (MacGaffey 2000a). As political power became increasingly chained to participation in a colonial economic system, minkondi became increasingly important sources of power that could not easily be operated, and therefore usurped, by foreign interests. Threats to social cohesion only increased with the beginning of the rubber boom in 1892. Theft, raiding, and violence between communities became more prevalent in order to satisfy ivory and rubber quotas (Hochschild 1999: 229-232). It is likely that as social turmoil increased, so too did appeals to minkondi. The huge number of wire-drawn nails embedded in minkondi attest to their frequent usage after 1890. Rather than artifacts of an enduring Kongo ritual practice, minkondi are better thought of as novel, or at least intensified, adaptations of nkisi to conditions particular to the late 19th and early 20th centuries.

Conclusions

The lack of adequate provenance documents is a serious block to art historical research. With the historical context not known, the default for African objects is too frequently to assume they link to a timeless tradition. The enduring legacy of salvage ethnography is that it took for granted that practices current in the late 19th and early 20th centuries had been in place for centuries, fed by the notion that African cultures had developed slowly and changed little through the centuries. This is simply not true: the practices recorded by Laman, Dennett, and other colonial ethnographers, were contextually dependent and must be understood as such.
Minkondi are certainly part of the centuries old ritual practice of minkisi, but they are a manifestation shaped by the traumatic events of the early colonial period. By using technologically derived features of nails that are chronologically sensitive, I have demonstrated that the UMMA nkondi was most frequently used after 1880 and probably after 1890. I’ve also demonstrated that a second nkondi may have been used earlier and longer, but still after 1880 as well. I hope that this article will encourage future investigations of nail figures in other collections. Based on the hundreds of published photographs of minkondi, it is probable that many examples will be found that have only wire-drawn nails, further strengthening my conclusions that minkondi were most intensively employed after 1880. Given the ease and simplicity of classifying nail types, it would be feasible to develop comparisons between large numbers of nail figures. As figures with better provenance are analyzed, their nail type ratios can be used as reference points for when and how nails were embedded in minkisi. Though each figure can be investigated on its own, the systematic analysis of dozens of minkondi in collections throughout the world will be the most fruitful in reframing these objects in relation to their colonial context.

Though not employed in the present study, several non-destructive technologies could be used to further refine the analysis. Computerized tomography (CT) and conventional x-ray scanning could be used to identify nail point forms embedded in the figure, possibly distinguishing between early and late machine-cut nails. Portable x-ray fluorescence (pXRF) could be used to discern between iron and steel implements. Steel machine-cut nails did not exist prior to the widespread adoption of the Bessemer process in the 1860s and 1870s, and steel wire-drawn nails were not manufactured until barbed wire became widespread after 1874. Discerning between iron and steel can be used to identify early iron wire-drawn nails that may have been imported by French and Belgian merchants prior to the 1870s. There may be nail figures with no wire-drawn nails, as written references to nail figures appear by the 1870s. However, a cursory look at published photographs of nail figures indicates that most contain wire-drawn nails. The preponderance of wire-drawn nails shows that minkondi were most often used late in the 19th century. It is critically important to understand the meaning of minkondi in respect to its place and time. Minkondi mean more than examples of the ritual practice. They are African responses to the ruptures wrought by colonization.
References


Lagamma 2008


Tuckey, James K. 1818. Narrative of an expedition to explore the river Zaïre, usually called the Congo, in South Africa, in 1816, under the Direction of Captain J. K. Tuckey, R. N. London: John Murray.


Endnotes
1. The most thorough review of nail figures in museums and private collections is Lehuard’s *Fétiches à clous du Bas-Zaïre* (1980). Of the more than 100 nail figures pictured, European manufactured nails are identifiable on all figures with at least one visible nail.
2. Published studies are rare, but the analysis of two nails and two blades from a nail figure at the Helinä Rautavaara Museum (Raf55) showed that all implements were made of steel (Salonen 2012: 30).
Figure 1
Map of the Lower Congo and Loango coast area from where *minkondi* were collected in the late 19th and early 20th centuries.
Figure 2
*Minkisi* and other objects collected by Richard E. Dennett.
Loango coast, Republic of Congo
Late 19th century
Photo: Richard E. Dennett

Dennett collected ritual objects, weapons, and tools to document a way of life that he believed would be replaced by European culture through colonization.
<table>
<thead>
<tr>
<th>Nail Type</th>
<th>Form</th>
<th>Cross-Section</th>
</tr>
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<tbody>
<tr>
<td>Hand-Forged</td>
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<td></td>
</tr>
<tr>
<td>Machine-Cut</td>
<td><img src="image2" alt="Machine-Cut Nail" /></td>
<td></td>
</tr>
<tr>
<td>Wire-Drawn</td>
<td><img src="image3" alt="Wire-Drawn Nail" /></td>
<td></td>
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</tbody>
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Figure 3
The general form of the three main nail types. Hand-forged nails were produced prior to and during the 19th century. Machine-cut nails were first produced in the late 18th century, but were not the main nail type in production until after 1820. Small wire-drawn nails were produced in very small amounts early in the mid-19th century, but were not the main nail type in production until after 1880, and dominate nail production after 1900.
Figure 4
19th century nail cutting machines still in operation in the late 20th century
LaBelle Iron Works, Wheeling, West Virginia, United States
1990
Library of Congress
Photo: Jack E. Boucher
Nail cutting machines decreased the cost of nail production, transforming production from a local cottage industry to a global commercial enterprise.
Figure 5
Nail Figure (*Nkisi Nkondi*)
Vili peoples; Democratic Republic of Congo; Late 19th Century
Wood, iron, fiber cord; 103.5 cm x 35 cm x 25.5 cm
University of Michigan Museum of Art - 2005/1.192
Photo: University of Michigan Museum of Art
Of the 97 iron implements embedded in this nail figure, 46 are wire-drawn nails—suggesting a late 19th century use date.
Figure 6
Nail Figure (*Nkisi Nkondi*)
Kongo peoples; Democratic Republic of Congo; Mid to Late 19th Century
Wood, iron, brass, animal horn; 75 x 28 x 28 cm
Private collection
Photo: University of Michigan Museum of Art
Of the 336 iron implements embedded in this nail figure, only 74 are wire-drawn nails—suggesting an initial use date in the mid-19th century and a terminal use date in the late 19th century.