Linking individuals: the social role of bronze bracelets in the Philippines

Grace Barretto-Tesoro examines bronze bracelets found in the Philippines, and looks at those discovered in the other parts of Southeast Asia.

Introduction

Bronze bracelets with good contexts were recovered in recent excavations in the Philippines (Barretto 2003). To contextualise the Philippine bracelets in the Southeast Asian region, I will briefly discuss bronze bracelets recovered from other areas in Southeast Asia; compare the forms and designs of bracelets recovered specifically in the Philippines and Thailand; and discuss them in a broader context of status markers in the Philippines prior to European contact.

The Philippine bronze bracelets were excavated in Porac during the University of the Philippines-Archaeological Studies Program’s 2002 Summer Field school (Paz 2002; Barretto 2003) and earlier excavations in the same area by the UP-ASP and the Philippine National Museum (Dizon 2001).

Through a research grant, I was able to examine the bronze bracelets on exhibit and stored in the National Museum of Bangkok and the Ban Chiang Museum. The fieldwork in Thailand was conducted between May-June 2003 and was funded by the Southeast Asian Studies Regional Exchange Programme (SEASREP) of the Toyota Foundation.

Methodology

My primary focus is the morphological attributes of the bracelets. These include the form and surface decorations. I obtained metrical and non-metrical attributes of the bracelets; wound a tape measure around each bracelet to get the approximate length; used a caliper to get the thickness, external and internal diameters; and I used a digital weighing scale to obtain the weight of each bracelet. For the stylistic attributes, I illustrated each bracelet and photographed them.
The Porac Site

The habitation and burial deposits in Porac, Philippines (Figure 1) contained diverse cultural materials which date to at least the 14th-16th centuries AD. These materials include stone and metal implements, porcelain dishes, decorated pottery, bronze bracelets, floral and faunal remains, spindle whorls and features such as hearths, postholes, middens and plowmarks (Dizon 1999 and 2001). Porac was first excavated in the 1960s by Fox (1960a, 1960b and 1960c); and the results of his excavations confirmed some of the early written accounts (Chirino 1602; Morga 1609) on burial practices such as the location of burials under or near settlements.

During the 1999-2002 excavations, no skeletons were observed due to the acidity of the soil, though some of the bracelets were observed to be associated with arm bones which were direct evidence that they were indeed bracelets (Barretto 2003). Most of the bracelets recovered were mostly associated with metal implements. It was a common assumption that bracelets were interred with females and metal implements with males; the Porac burials, however, present interesting data since both types of objects were present in some of the graves (Barretto 2003). Based on diameters of bracelets, some of the burials probably were that of children (Barretto 2003). The significance of the bracelets in terms of gender and age association was not thoroughly discussed in this earlier article (Barretto 2003).

The Porac bracelets

Thirteen bracelets were recovered from 10 burials in Porac (Barretto 2003). The bracelets were in a generally good state of preservation.

The bracelets are of two styles: the spiral bracelet (Figure 2) and the open bracelet (Figure 3). The spiral type is a bracelet which is composed of
continuous coils. A coil is defined as forming a closed ring wherein the ends do not meet, but overlap. The number of coils is determined by counting the number of rings the continuous coil produces. Any extension beyond a ring that does not form a one whole ring is not counted (Barretto 2003). An open-type bracelet is a bracelet which does not form a ring. Most of the burials had spiral-type bracelets. Although the form of coils differs, both types of bracelets have no surface decorations. The thickness\(^1\) of the coils range from 0.3 - 0.5 cms; the maximum internal diameters of the bracelets are from 3.4 - 7.2 cms. The heaviest bracelet weighs 414 grams and the lightest is 12 grams.

Bracelets with an internal diameter of less than 4.0 cms probably belonged to children, while those with an internal diameter higher than 4.0 cms were worn by adults. Bracelets with larger diameters had more coils. Based on these diameter measurements, 5 burials belonged to children and 3 were adult burials.

**The Ban Chiang Site**

Ban Chiang is a burial site dating to 3600 BC and continued to AD 200. The site is divided into 3 periods based on burial and ceramic styles (White 1982):

1. Early Period (ca. 3600 - 1000 BC) with supine burials and pottery placed at the foot or head of the grave;
2. Middle Period (ca. 1000 - 300 BC) with supine burials and broken pottery over the body;
3. Late Period (ca. 300 BC - AD 200) with supine burials and whole pottery placed over the body.

Pottery types were painted vessels, red slipped painted ceramics, black pottery with incised decoration, pots with everted rims and incised, painted designs on the shoulder, cordmarked pots, and carinated pots. Other materials recovered were bronze and iron artifacts, deer skull and shellfish, bronze bracelets, clay rollers with carved, curvilinear and rectangular designs, glass beads (You-di 1975; Gorman and Charoenwongsa 1976; Suthiragsa 1979; White 1982).

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\(^1\) Metrical attributes for Porac bracelets are obtained from Barretto 2003.
Figure 4: Examples of Ban Chiang bracelets which became fused (Bangkok National Museum)

Figure 5: Open bracelet (Bangkok National Museum)

Figure 6: Open circular plain (Bangkok National Museum)

Figure 7: Circular Plain (Bangkok National Museum)

Figure 8: T-shaped cross section (Bangkok National Museum)

Figure 9: Triangular cross section (Ban Chiang Museum)

Figure 10: Plain horizontal flat (Ban Chiang Museum)

Figure 11: Diagonal lines (Ban Chiang Museum)

Figure 12: with 4 equidistant knobs (Bangkok National Museum)
The Ban Chiang Bracelets

The bronze bracelets were cast from copper and tin using a clay mould (White 1982). Moulds and crucibles recovered in Ban Chiang and nearby sites support local casting.

The Thai collection was in a very good condition, and the decorations were very distinct and recognisable. Most of the bracelets can be analysed separately. However, there were a few specimens which became fused together through time and by the matrix (Figure 4).

I classified the museums’ collection into 3 categories based on their internal diameters. These categories are child bracelets, adult bracelets and atypical bracelets. The method in inferring the age is similar to the one used for the Porac bracelets. The child bracelets’ internal diameters range from 2.5 to 4.0 cms; the adults 4.2 to 7.1 cms; and the atypical bracelets 8.9 - 10.1 cms.

The majority of the adult bracelets is open bracelets (Figure 5) and has a circular coil (Figure 6). Adult bracelets’ decorations\(^2\) include one or a combination of the following: plain (Figure 7); T-shaped cross section (Figure 8); triangular cross section (Figure 9); plain horizontal flat (Figure 10); x designs; crescent design (Figure 4: extreme left picture); diagonal lines (Figure 11); knobs (Figure 12); knobs with banding, 2 rows of scroll decorations (scroll decorations may be oblique sometimes) (Figure 13); knobs in middle of scroll (Figure 14); scroll lines with knob in middle and coil with banding (Figure 15); knobs with scroll designs (Figure 16); clustering of scroll decorated knobs (Figure 17); rows of scroll designs separated with horizontal lines (Figure 18: left); incision mark around the bracelet (Figure 18: right); bells with scroll designs and coil with banding (Figure 19); double

\(^2\) Horizontal lines are defined as lines which are parallel to the edge of the bracelet; vertical lines are perpendicular to the edge of the bracelet; and diagonal lines are oblique.
Figure 18: rows of scroll designs separated with horizontal lines (left), reverse of same bracelet with incision mark (right) (Bangkok National Museum)

Figure 19: bells with scroll designs and coil with banding (Bangkok National Museum)

Figure 20: double bells and horizontal lines on coil (Bangkok National Museum)

Figure 21: armllet with 4 equidistant knobs with faded diagonal lines all over (Bangkok National Museum)

Figure 22: Circular and spiral coil (Bangkok National Museum)

Figure 23: Circular coil with diagonal lines at both edges (Bangkok National Museum)

Figure 24: Spiral bracelet with diagonal lines (Bangkok National Museum)
bells and horizontal lines on coil (Figure 20); a bracelet composed of 4 flat coils with bells; and armlet with 4 equidistant knobs with faded diagonal lines all over (Figure 21).

Child bracelets' types differ from adult bracelets. The decorations include circular and spiral coils (Figure 22), diagonal lines (Figures 23-24), horizontal lines and knobs (Figure 25). One bracelet which is similar to an adult bracelet (Figure 11) has a singular flat coil, 2 rows of scroll lines, and horizontal lines (Figure 26).

Atypical bracelets are too heavy (>200 g) and large to be worn daily. They are plain close bracelets or decorated with knobs (Figures 27-28).

Another unusual bracelet resembles an elephant's tusk (Figure 29). This was probably not worn daily either.

Other bronze bracelets in Southeast Asia

Many burials sites in Mainland Southeast Asia, specifically in Thailand, contained many bronze objects, one of which is the bronze bracelet (Higham 1996). Ban Na Di, a 600-400 BC burial site in Thailand, had several burials with bronze bracelets. The female in Burial 36 of Phase 1b had 19 bronze bracelets, a shell bracelet, and over 100 shell beads. In the same site and phase, a 7-year-old child wore 1 bracelet, 2 shell bracelets and had more than 200 shell beads, 2 cattle figurines and 2 pottery vessels. Another female wore 3 bronze bracelets. In the Phase 1c burials in Ban Na Di, a child wore 2 solid bronze anklets, 1 female wore 1 bronze bracelet and another female wore 2. A bronze coil was found with a man.
The Phimai phase burials (200 BC - AD 600) in Ban Prasat also contained bronze bracelets. Burial 2 had 3 bronze bangles on each wrist and 2 bronze rings. A child wore 14 bronze anklets. Another child (Burial 6) wore 4 bronze bangles on the right arm and 10 bronze anklets.

The Phimai phase in Noen U-Loke likewise contained bronze bracelets. The skeleton in Burial 1 wore bronze bracelets on each wrist, double bronze earrings on each ear and a glass bead. The deceased in Burial 5 was buried with orange glass beads, agate stud, iron ring and 9 bronze bracelets.

In the Sakon Nakhon Basin, a child between 1 and 2 year-old (Burial 5) was interred with 3 miniature bronze bracelets, and an infant of about 7 months old, in Burial 8, had a tiny bronze bracelet.

One burial in Tianzimao contained 79 bronze bracelets. This site is north of Shizhaishan, which has radiocarbon dates of 300 - 100 BC. In the Indonesian island of Bali, high status stone sarcophagus burials contained bronze bracelets.

It appears that adults of both sexes and children and even infants were buried with bronze bracelets. The bronze artefacts were symbols of status and maybe manifestations of the incipient ranking in these sites. Based on the other grave goods found with individuals interred with bronzes, no marked ranking is evident which is linked with bronze (Higham 1996: 316).

**Status markers in the Philippines**

Junker (1990, 1993a, 1993b, 1993c, 1999; Junker et al. 1995) hypothesised that long-distance trade made an impact in the socio-political evolution of Philippine societies before they were colonised by the Spanish in the 1500s. High-level chiefs in coastal lowland areas controlled the trade centres. They exchanged local products with low-level chiefs in the upland for forest materials that the foreign trade demands.

Objects accumulated through trade represented "wealth that can be distributed strategically to establish alliances critical for political centralisation" (Junker 1999: 6). These wealth or prestige goods were "potent symbols of social rank and political authority in the context of status rivalry" (Junker 1999: 6). From the 10th to the 14th centuries,
prestige items were trade ceramics, glass ornaments, foreign textiles, bronze objects, and local products of gold ornaments, and decorated earthenware. In the 14th and 15th centuries, there was an increase in the presence of Asian ceramics – Chinese, Annamese, and Siamese wares in habitation and burial sites (Junker 1999).

The dynamics of the long-distance and upland-lowland trades created site hierarchies (Junker 1999). These site hierarchies are archaeologically evident in the differential distribution of the quality and quantity of foreign and local products in habitation areas, i.e. elite and non-elite zones in coastal lowland sites; and in coastal and upland sites (Junker 1999). There is differential access to luxury goods and subsistence resources in elite and non-elite zones. Artifacts from the high-status residential area at the Santiago Church locale vary greatly in quality and quantity from those found at the low-status residential zone in Osmeña locale. Relatively higher densities of porcelains belonging to the Sung, Yuan and Early Ming Periods, decorated and plain earthenwares, bronze and iron fragments, stone flakes and cores, and remains of animal bones and shells were found in elite zones than in non-elite zones. Large postholes measuring 15-30 cms in diameter and 25-40 cms in depth suggest large stockade pilehouses in the elite zone (Junker 1993a). Relatively more prestige goods were also found in burials located in the elite habitation zone than in the non-elite zone (Junker 1999).

Bacus (1996 and 1997) proposed that large postmolds dating to the 15th and 16th-17th centuries AD in Dumaguete were elite residences. Cultural objects found in elite areas – glazed Asian ceramics, precious stones, metal bells, silk and other imported textiles, iron and bronze objects, and gold jewelry – were elite status items. The accumulation of these status items was interpreted as signs of the owner’s potency (Bacus 1999).

I have proposed identification parameters that help determine if an object qualifies as a prestige good: raw material, source of the material, time and energy required to manufacture and/or acquire an object, and cultural function (Barretto-Tesoro 2003). Based on these criteria, high prestige goods of the 10th-15th centuries AD in the Philippines included bronze ornaments, stone beads, iron implements, glass beads and bracelets, porcelain, gold and copper ornaments.
These wealth and prestige objects such as the bronze bracelet became high-status markers primarily because of their nature as trade or exotic objects, which were of limited access and distribution.

Discussion

The Porac burials contain similar types of grave objects such as metal implements, tradewares and bronze bracelets (Barretto 2003). The bronze bracelets vary in size and in the number of their coils, which perhaps indicates age. Those in the adult burials have more coils compared to the bracelets found in the child burials. Adult burials contained 5 to 13 coiled bracelets whereas the child burials had 1-3 coiled bracelets. Bronze bracelets may signal a high rank. Children buried with bracelets may indicate their parents' status. It is also a possibility that bracelets in child burials represent the grief of the family (Macdonald 2001).

Ethnographic accounts among cultural groups in the Philippines, such as the Ifugaos and Kalingas, warriors and members of the elite, wore bronze bracelets to denote their rank (Ellis 1982; Maramba 1998). Elites of both sexes and male headhunters were entitled to wearing bronze bracelets. Status is further subdivided, depending on which wrist the bracelet is worn on. It is possible that the adults interred with bronze bracelets were of high status not only because of economic wealth but also because of achieving raider\(^3\)/hunter status.

In Ban Chiang, Early Period bangles are simple plain rings. Middle and Late Periods had more surface decorations and more elaborate cross sections (White 1982). The Ban Chiang bracelets differ in decorations between children and adult bracelets. Adult bracelets vary more and had an array of design motifs. Some of these adult motifs, such as the knobs with scroll designs and bells, both plain and with scroll designs, were not present in the children's bracelets. Based on diameter comparisons with published material (White 1982), some bracelets considered here as belonging to adults may have actually

\(^3\) Junker (1999) used the term warrior for a burial she excavated in Tanjay, but I prefer the term "raider" as I think the term warrior connotes rigid hierarchical relations which may not always be the case in the Philippines (see Barretto 2002). Though this concept warrants further study, raider is more appropriate on the basis of ethnohistorical and ethnographic accounts (Scott 1994).
been anklets in child burials, where plain "bracelets" with higher diameters were also found, as anklets (White 1982). Since some bangles may have been used as anklets, the method used to differentiate adult and child burials based on diameters may not be appropriate for this site. In East Asia, the T-shape cross section bracelet is common. Stone bracelets of this type were also found in Ban Chiang. One adult male burial was interred with both bronze and calcite T-shaped cross section bracelets (White 1982).

Children with bangles/anklets, some even with a set of bracelets, may indicate inherited status or the child was "particularly cherished by the parents who had accumulated some wealth" (White 1982: 78). Bronze objects in adult burials may indicate their individuality as it relates to their ritual, economic or social roles (White 1995).

Atypical bracelets may have been added to the burial to emphasize the high status of the deceased or his/her social affiliation.

Porac bracelets are very simple, compared to the Ban Chiang bracelets. The Philippine specimens had no surface decorations; whereas the Thai specimens have many design motifs. While the dates for the Thai bracelets range from 4000 years ago to 800 years ago, the Porac bracelets belong to burials dating to the 12th-16th centuries AD (Barretto 2003). Though the bracelets from Thailand were older than the Porac bracelets, the former had more elaborate designs than the latter.

It is possible that plain bracelets were found in Porac because of its geographical location. Porac is situated upstream of the Porac River in central Luzon. One hypothesis follows Junker’s (1999) proposition that high quality objects, the more beautiful bronze bracelets, were already obtained by lowland groups leaving the plain bracelets to the upland inhabitants. In the future, this hypothesis can be tested by excavating in the lowland areas of Porac.

In ancient times, the technology of bronze working was absent from the Philippines. Bronze objects such as bracelets were not manufactured in the Philippines and were brought to the country by trading ships (Goddio 1997; L’hour 2001). Another probable reason why plain bracelets were found in Porac is that plain bracelets were the only types being exported to the Philippines. Jars of plain bronze bracelets were recovered from ancient shipwrecks (Goddio 1997). The Porac bracelets indicate that they were not reworked after they became integrated to the local material culture. Similar plain bracelets were
used by Cordilleran groups in the early 1900s (Ellis 1982). Its status as a trade item, the differential access to it and perhaps its aesthetic qualities had transformed the bronze bracelet to a social group marker.

The fact that bronze bracelets were present in Porac may indicate that upland Porac communities have interacted perhaps not just through trade as Junker suggested but may have other social relations such as kinship networks and extended lineages in the lowlands.

Some of the bracelets in Porac and Ban Chiang might have been used to represent social group affiliation or identities related to occupation and/or skill. It is possible that two value systems exist, particularly in the case of Porac, between bronze bracelets buried with children and infants, and bronze bracelets buried with adults. These two value systems may or may not be vertically ranked in relation to each other; they may be ranked laterally; or they may even be ranked in different ways. Heterarchy (Ehrenreich et al 1995) is a relatively new concept which is not the opposite of hierarchy but is an alternate way of looking at the dynamics of social organisation and relations. Status is seen as flexible and horizontally differentiated (White 1995); vertical and horizontal elements are present in one cultural system. This heterarchical representation (Crumley 1987; White 1995) of values attached to bronze bracelets and to identities that are connected to variables of group membership, age, individual achievement and skill, may be an alternate explanation to the presence of bronze bracelets in burials.

Bronze bracelets mark social identities of rank and personal achievement; and link the individual to their social groups, and to kin, as well as linking these groups to trade networks.

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