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BEADS IN THE PHILIPPINES

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The Philippines is an archipelago of over 7000 islands, less than 3000 of which are named. Geologically, it is part of the western Pacific volcanic chain, and geographically it forms the western border of the South China Sea. It is dominated by the island of Luzon in the north, Minandao in the south, and Mindoro and the Visayas in the center. Long, thin Palawan and the Sulu Island chain stretch out towards northern Borneo.

The story of beads in each country or region is distinct, a product of the interplay between local resources, geographic placement, historical development, and even modern archaeological progress. These factors have helped form the story of beads in the Philippines, and have made it unique.

One important feature in our history is the location of the Philippines in relation to other areas in Asia. Its closest neighbors are Taiwan and Borneo. Along with the Philippines, these two islands share a similar background. While they were never entirely ignored nor completely forgotten, they developed sophisticated technologies and cultures later than other regions of Asia. The great historical changes which began in Southeast Asia some 2000 years ago spread first to the mainland and the Indonesian islands of Sumatra and Java. The Philippines were relatively isolated. The South China Sea, even the Sulu Sea are large bodies of water, and while people could and did get to the archipelago, it was more of a hinderland than a core region for the next 1500 years.

Then in the sixteenth century another change occurred. The Philippines became the first colony in Southeast Asia. The Spanish left a unique heritage there; it remains today the only Catholic state in all of Asia. It became the pivot for an immense undertaking that linked the world together from China to Mexico, and on to Iberia and the rest of Europe. Then a few centuries later it became an American territory, which had profound effects on it as well. In sum, the historical development of the Philippines is markedly different from that of other Southeast Asian states.

One other difference is crucial to our story. The Philippines is the only country in the region — perhaps in the world — where a type collection of beads from archaeological sites has been maintained. This collection, founded by the the late American archaeologist, Robert B. Fox, and maintained by Rey Santiago of the Philippine National Museum, contains every bead scientifically excavated in the country. The beads from each new

excavation are compared to the collection and classified according to its numbering system. When new types are found, they are added. A detailed study of this collection has furnished invaluable information about the story of beads in the Philippines, giving us a fairly complete chronological view of their history.

Members of the human family came to the Philippines 30,000 or more years ago; their remains have been found in the Tabon Caves on Palawan. Early colonizers of the archipelago were the ancestors of the modern dominant Malay peoples. At some time in high antiquity peoples of Negrito stock also came; they now live mostly in the Luzon highlands. The tool kit of these people was made of chipped stones and the period is known as the Upper Paleolithic or Late Old Stone Age.

By around 10,000 B.C. the islands' inhabitants began to refine their tools, as did people around the world. Instead of only chipping and flaking stone, they ground it, to produce a more handsome and more easily held tool and one whose sharp edge which could be renewed by further grinding. This stage of development is called the Neolithic or New Stone Age.

Thus far, no beads have been found from Paleolithic times in the Philippines, but they were probably being used, as they were elsewhere in the world. It is likely that most of them were of perishable materials, such as plant parts or soft animal parts; certainly these materials remain popular among indigenous groups in today's Philippines.

The earliest recorded beads are made of teeth (crocodile and porcupine) and above all, shell. Shell is used around the globe for beads. The Philippines today is one of the major shell beadmakers of the world. In

the Neolithic period shells were treated in one of two ways. Small whole shells, such as cowries and dove shells, were perforated to be worn as is. Cowries had their backs hammered off and the rough edges ground smooth, while dove shells were given a hole by gouging with a point. Larger shells were either cut into smaller pieces, such as Conus tops, or were cut up entirely to be used as raw material to form beads in the shape of discs, spheres, barrels, and others.

A few beads of soft stone are found at this period, but the most remarkable ones are those made of nephrite. Nephrite is one of two minerals commonly called jade (the other is jadeite). It comes in a variety of colours, has been prized by many people over the ages, and although not quite as hard as rock (quartz) crystal, is very tough, due to the arrangements of its microcrystals.

Where did the nephrite beads of this and later periods in the Philippines come from? No one has a definite answer to that. There are not only beads of nephrite, but also adzes and other tools made from the stone. This would suggest a local source, and one has been located in Zambales province on Luzon. Some authorities, however, point out differences between the tools and the raw stone in Zambales, suggesting that the ancient nephrite might have come from Taiwan, where prehistoric nephrite beads are known and deposits are currently exploited.

There is a problem to consider with the beads, and that is the difficulty in drilling nephrite. Many of these beads have small grooves across the ends, which may have been ground so to give a drill a place to "bite"; similar grooves are found on ancient Chinese nephrite square and rectangular

prismatic beads, shaped like those in the Philippines. In addition to the beads, there are rather ornate nephrite earrings, some decorated with animal heads, called _lingling-o_ in the Philippines. Similar earrings are found in Indochina and southern China, as well. These all suggests importation from somewhere, but again, where?

The major source of nephrite in Asia is the the far west of China, around Yarkand. The Chinese were importing this jade by the Neolithic period. There are also other sources in Southeast Asia, some of them quite minor. In addition to Taiwan and the Philippines, they include Java and Sumatra in Indonesia, Thailand, and Burma (most of whose jade is of the jadeite variety). Both nephrite and jadeite are widely spread around the world in small amounts. It may be that the actual source of the stone for the early Philippine beads has been exhausted, and we may never learn precisely where they were from or who made them.

The chronology we are following here is the one advanced some years ago by Robert Fox and still used for many purposes by Philippine archaeologists. There are several problems with it, but we shall follow it until a better one is devised and applied to the type collection of beads. In Fox's chronology the Early Metal Age is marked by a few metal tools, some of which were imported and some made in the Philippines from worn-out imported bronze pieces. These were used alongside the stone tools. He dated it from about 700 to 200 B.C. The evidence of the beads argues for a more recent terminal date for the period.

This was the highwater mark for nephrite jade beads in the Philippines. They account for over a third of all beads excavated, and were found in more than three fourths of the sites. Their forms are not quite as geometrical as they had been in earlier, and some were likely locally produced. There are some enigmatic jade objects. They look like multifaceted bicone beads on one side, but on the other side they are open, with one smooth and one rough edge. They are not merely broken beads, but were used in some other capacity, perhaps as earrings.

In this period that we find our first gold beads. Most of them are pretty simple, but an attractive flat pendant consists of a rosette of five comma-shaped loops around a central circle. The effectively strong design of this pendant was made quite simply. Small triangles and circles were chiseled out of a sheet of gold. To make the loop, a bit of the sheet at the top was bent over in one direction and two small flaps on either side of this loop were bent over in the opposite direction to secure it. Probably a local product, it reminds us of the reputation for gold that the Philippines justifiably earned later.

Soft, locally worked stones decreased in importance in the Early Metal Age, but a new bead material was introduced: the hard stones of the quartz family, especially red cornelian and banded agate. They were not yet numerous, but were widespread in many sites. Most likely imports, and most likely originally from India, these beads were of simple round or barrel shapes. One of them is an important historical and technological marker. It is a cornelian barrel with five white zones encircling it. The zones were added to the stone by the technique called "soda-etching," in which

soda was added to the surface and the bead heated. It is an ancient technique, and all clues point to India as the source of this bead (See Beads of India, Arts of Asia, April-May 1988).

The most numerous beads of the Early Metal Age, accounting for nearly half of those found, were made of a new material which was to dominate the bead story in the Philippines from now on: glass. Some early archaeologists believed that at some point glassmaking was adopted in the Philippines before the coming of the Spanish, but no evidence for that has ever been found. It is safe to assume that all glass beads found in the Philippines were imported from elsewhere, and because they became the most important bead material in the country, we are most interested in discovering where they were made.

The bulk of beads in this period are the small drawn monochrome bead we have met elsewhere in India and Malaysia: the Indo-Pacific beads. These earliest imports into the Philippines were mostly of the opaque red variety. At this point they were not very widespread, being found at less than half the sites of the period. But their presence creates a problem of dating of this period. Indo-Pacific beads were first made at Arikamedu, India, around 250 B.C. Did these beads come all the way to the Philippines within fifty years, as would have to be the case if the Early Metal Age ended in 200 B.C.? Besides, several of these beads are not the short spheres or doughnut shapes made at Arikamedu, but small tubes. Later Indo-Pacific beadmakers made similar short tubes, but this was not done at Arikamedu. Since the beads could not have been made at Arikamedu, they must have been made at a

later Indo-Pacific beadmaking site: Mantai (Sri Lanka), Klong Thom (Thailand), or Oc-eo (Vietnam), in which case they can be dated no earlier than the first or second century A.D.

One other glass bead from this time has received a great deal of attention. It is of translucent greenish glass, square in section with a curved design on the sides and end. It is only a fragment, and the picture of it which has been widely reproduced is a reconstruction. Fox suggested it was a "cicada." Cicadas of jade and glass imitating jade were made in China and put into the mouths of the dead. But this glass object is unlike Chinese cicadas in two important ways. For one thing, cicadas are flat, and not square in cross section. And for another this bead is perforated through its length, while cicadas were not. Although we cannot tell the original shape of this bead, it certainly was not a cicada.

An interesting aspect of this bead is that it was not made by cutting a glass tube (drawing) or wrapping hot glass around a rod or wire (winding). Rather, it was cut and ground to shape from a piece of glass and the perforation was drilled. Making glass beads in the same way stone beads are made is known from various countries at this time, but it is rare. It may be that this bead, whatever its original shape, was manufactured in the Philippines itself from a bit of some visitor's scrap glass.

In the Developed Metal Age, dated from about 200 B.C. to 1200 A.D., metal tools of bronze and then iron became more common and there is evidence for the local smelting of iron. In terms of beads, the assemblages are dominated by Indo-Pacific beads, found all over the country and accounting

for over 60% of those found. Only a single nephrite bead and a single soft stone bead are recorded; and the bulk of the others are of hard quartz variety stones.

The hard stones are again most likely from India. They include cornelians of various shapes, banded agate, and black and white striped onyx, which is made by soaking banded agate in honey and then putting it in sulphuric acid. The acid carbonizes the sugar in the porous layers of the stone and make the onyx. There is also a soda-etched bead. This one had its surface artificially blackened in the manner of making onyx and then had white lines put on it with soda in a net design.

Two stone beads of unusual shape recall beads known from elsewhere in Asia. One was made of flint or chert, the white variety of jasper, another quartz family stone. It was made into a sphere, then six faces were ground off to make it a cube with rounded corners. A similar bead in quartz crystal was found at Oc-eo, the port of Funan in modern Vietnam (ca. second to sixth century A.D.). A bead made of "mudstone" recalls in shape the popular nelli beads of Sri Lanka, themselves representations of the fruit of the nelli tree (Emblica officinalis). In Kandy, Sri Lanka, nelli beads are especially important for weddings, and this bead may have found its way to the Philippines from that source.

By far the most numerous glass beads were the Indo-Pacific beads, now found in several colours, opaque red and orange, and translucent blue-green, yellow-green, and several shades of blue. A few other glass beads are also found in this period, most of which are opaque red in colour and were probably made by Indo-Pacific beadmakers. During this time, Malaya and Sri Lanka were the most important Indo-Pacific beadmakers.

The next period is called the Age of Trade and Contact with the East. As we discussed in an earlier article on Chinese beads, the interests of the Chinese shifted southward, especially after the northern capital at Kaifung fell to the invading Mongols in 1127. The Southern Song Dynasty (1127 to 1279), centred in Hangzhou, took an increasing interest in China's southern neighbors and in the Nan Hai or Southern Sea. Soon China was master of the region, the most important maritime power in Southeast Asia. Her contacts with the more developed regions of the area, such as Malaya and Indonesia, did not exclude her from doing business with other places, which had until then been on the fringes of trade.

One territory which was much more exposed to trade was the Philippines. The islands produced products which the Chinese wanted, and they in turn had products which the Filipinos wanted. The Philippines was known to the Chinese as Ma-i, a name first recorded in A.D. 982. In his book, "A Description of Barbarous People," Chau Ju-Kua (Zhao Rugua) wrote this description of trade in the Philippines in 1225:

> The custom of the trade is for the savage traders to assemble in crowds and carry the goods away with them in baskets; and, even if one cannot at first know them, and can but slowly distinguish the men who remove the goods, there will yet be no loss. The savage traders will after this carry these goods on to other islands for barter, and, as a rule, it takes them as much as eight or nine months till they return, when they repay the traders on shipboard with what they have obtained (for the goods). Some, however, do not return within the proper term, for which reason vessels trading with Ma-i are the latest in reaching home.

> The products of the country consist of yellow wax, cotton, pearls, tortoise-shell, medicinal betal-nuts and yu-ta cloth, and the traders barter for these porcelain, trade-gold, iron censers, lead, coloured glass beads, and iron needles.

Chau Ju-Kua also told the Chinese mariners to take glass beads to Palawan and the Visayas, Ma-i probably referring to Mindoro or Luzon. In 1349 Wang Ta-yuan (Wang Dayuan) advised the taking of beads to San Tao, probably in Luzon, and blue beads to the Sulu Islands.

All this Chinese trading activity shows up in the archaeological record. Of the beads we can identify, in the first phase of this period, about A.D. 1200 to 1450, Chinese glass beads account for over half of all those found, and another 44% are glass beads which might be Chinese in origin. What happened to the Indo-Pacific beads? They now account for a mere 1.1% of the beads in the Philippines at this time. As we discussed in an earlier article on Malaysia, the Southeast Indo-Pacific industry seems to have disappeared around 1200, for reasons which are not clear. The Chinese were now the most important trading partners with the Philippines.

What sort of beads did the Chinese bring? The most numerous were tiny coil beads, usually no more than 2 or 3 mm in diameter, made by winding a thin stream of glass around a wire. They are found as early as the ninth or tenth century in some parts of Asia, but became especially important around 1200 when they replaced Indo-Pacific beads all around Southeast Asia. A Chinese ship which was apparently going from Manila to Borneo and was wrecked off Palawan island was carrying ceramics which help date it from 1573 to 1620. It was also carrying beads, overwhelmingly translucent red

coil beads. The coil beads themselves were on the wane by about 1600. Between 1200 and 1450 they accounted for a third of the beads in the Philippines, but between 1450 to 1600 for only about 3%.

Another important class of beads in the Philippines during this period, making up more than 14% of those found by archaeologists, are popularly called "Peking glass." The glass was actually made in Boshan, Shandong, but the beads were made there and elsewhere as well. They are typically of translucent bubbly glass with large perforations and often small "peaks" of glass at the end where the hot glass was cut off after a bead was wound.

A very small proportion of beads, but important artistically and technically, are polychromes, decorated with one or more threads of glass which contrast with the body in colour, and then combed into waves or feather patterns by drawing a stick or wire through the decoration while it was still hot. These are likely the beads that Chau Ju-Kua called "coloured" glass beads when telling Chinese sailors what to take to Ma-i.

Another bead type was made in several shapes but is distinguished by its colour, which is a dusky translucent red. The colour was made by adding copper to the glass and handling it in a special way requiring a second heating, known as a "striking." This technique was known in Europe in the twelfth and thirteenth centuries, but then was forgotten, only to be rediscovered in the nineteenth. Only one of these beads was found in the Philippines in the 1200 to 1450 period, but between 1450 to 1600 they account for 13.5% of all beads found.

In the earlier phase of this period the most common single type of bead was of wound black glass with a white zone wrapped around its middle. These imitate the onyx beads which had been so popular in the Developed Metal Age. We do not know where they were made, but they may well be Chinese. They account for a full quarter of the beads between 1200 and 1450, and were obviously very popular, but only one was excavated from later sites.

Aside from glass beads, the only other major category were quartz variety stone beads, especially faceted cornelians. There is a technological switch in the making of these stone beads which differs from the earlier periods. Whether this was because of a shift in the way of working these beads or in the change in the supplier is not clear.

In the Early and Developed Metal Ages round and barrel shapes were most common, with faceted forms and bicones coming only in the latter period. Most of the round beads were made by chipping a crude shape, called a roughout, then tumbling it with other beads, possibly in a leather bag with agate dust and water, for a fortnight or so. Next a small area would be chipped off the bead to allow the drill to "bite," and then it would be perforated from both sides. The barrel and faceted forms followed much the same procedure, but instead of being tumbled, they were polished by hand by being ground with some fine abrasive.

The cornelians from the Age of Trade and Contact with the East were overwhelmingly faceted forms, and they were predominately polished by tumbling, which imparts a high gloss to them and rounds off their edges. Also, to form a sport for the drill bit to "bite" it became increasingly popular to drill the bead with a larger drill bit before using smaller two diamond point drill bits.

The change from grinding to tumbling faceted beads is documented in other parts of the world. Cornelian beads in Scandinavia imported from India puts the change around A.D. 950. It turns up in the Philippines a bit later, but this may be because of less strict chronological control on the material.

But, might it be that these cornelians did not come from India but from China? In China cornelians were imported a long time until deposits there were exploited. The Spaniard, Antonio de Morga in 1609 recorded Chinese junks bringing cornelian beads to Manila. The wreck of the Spanish galleon, La Concepcion, in 1638 was carrying goods, overwhelmingly Chinese, back to Acapulco; it, too, was carrying cornelian beads. However, in 1515 Tome Pires, the Portuguese ambassador, specifically said that the Chinese imported a great many cornelians from Cambay, the city which exported these beads for centuries. Were the Chinese making cornelian beads in the later period or just transshipping them?

By the time the Spanish reached the Philippines the bead trade was well established in Chinese hands. The Spanish brought some beads with them and continued to import some, but for a long time, the Chinese remained the main supplier.

When Magellan reached the Philippines by crossing the Pacific, his clerk, Pigafetta, recalled that the leader of the expedition gave "Beades of Crystall" to the King of Butuan, but we do not know if this term meant glass beads or beads of rock crystal, like those that the Spanish took to Florida. Pigafetta also recalled that "One man offered for six threds of Crystall Beads a Crowne of massive Gold, with a Collar; but the Generall would not permit such bartering, that they should not perceive more account to be made

of their Gold by the one, then by the other of the Spanish Wares." Magellan was killed in the Philippines, and the man who really started the Spanish colony of the Philippines was Legazpi. He is recorded as having traded beads for food at Leyte and giving them away at Cebu.

After having established a camp at Cebu, a memorandum was sent to the Spanish court in the late 1560s asking for beads to be sent from Mexico described as "One thousand bundles of glass beads -- green and yellow." Small wound doughnut shaped beads in green and yellow have been identified as among those brought to the New World by Columbus, and possibly made in Spain: these may have been the beads requested. A glasshouse founded in Puebla, Mexico in 1542 is known to have made green and blue glass, but whether it made beads is not known. Of course, these could have been some other sort of bead, even made in Venice or elsewhere in Europe.

Although the early literature gives us few hints as to the types of beads the Spanish brought, archaeology helps to fill that gap. Two distinctive beads had originally been believed to predate the Spanish, but are now seen as early Spanish imports. One of these is the famous chevron bead, cut from a tube which has corrugated layers of different colours. The early chevrons had seven coloured layers and were faceted on the ends to reveal the chevron pattern. The other type of bead is called a "Nueva Cadiz" bead from the site on an island off Venezuela where they were first recognized. These are long square tubular beads, usually with dark blue interiors, a thin ring of white glass, and blue exteriors. They are sometimes twisted along their length.

Wherever the Spanish went in the early years of European exploration they took these two beads -- to Florida, Mexico, Venezuela, and Peru. Now the Philippines can be added to this list. We know that the seven layered chevron with faceted ends was made in Venice between about 1480 and 1580. It is not so clear where the Nueva Cadiz beads were made, except that they are European as well.

Even after the Spanish were well established in the Philippines, the chief supplier of beads for a long time remained China, not Spain. China and Spain were linked through the Philippines and Nueva España (Mexico) in a complex trading pattern that girdled much of the globe. Annually the Spanish sent their large ships called galleons to Manila, loaded with Mexican and Bolivian silver. There they would use the silver to buy all sorts of goods, mostly brought by the Chinese in fleets of junks. Then the Spanish would sail back across the Pacific and supply Mexico with some of the goods (old Chinese beads are heirlooms in some Mexican villages to this day). Other goods would be taken across land from Acapulco to Veracruz, from where they would be shipped across the Atlantic to Spain for home consumption or sold to other European nations.

This Galleon Trade was perhaps more lucrative and certainly less dangerous and arduous for the Chinese than the Spanish. The numbers of junks grew over time. Around 1570 Gonsales de Mendoza reported that more than 20 junks came to Manila annually. In 1588 the Englishman Thomas Cavandish reported 20 to 30, and in 1609 Antonio de Morga put the number at 30 to 40.

Not all Chinese junks called only at Manila. We mentioned earlier the wreck of a junk off Palawan Island between 1573 and 1620. It was carrying Chinese coil beads and other Chinese wound beads, most notably one made of many thin threads of glass in turquoise blue or white. These beads, especially the blue ones, are found in other parts of Southeast Asia. Most of them are a corroded, and the corrosion, most noticeable at the edges of the winds of glass, make them appear to be decorated with white lines.

In 1609 De Morga commented on the Galleon Trade, enumerating the goods that the Chinese junks brought to Manila. They included: "[cloths] decorated with glass beads or pearl trimmings... tacley, which are beads of all kinds, strings of cornelians, and other beads and stones of all colours." The word tacley may have been de Morga's rendering of tsau chu or tu chu, which at least in the nineteenth century meant glass beads. The 1638 wreck of the galleon La Concepcion, on its way back to Acapulco, had glass and cornelian beads aboard. Some of the glass beads were the translucent red ones we discussed above.

We are not sure when the Chinese ceased being the major supplier of glass beads to the Philippines. At some point the Spanish began bringing more and more beads from Europe, especially Venice and then Bohemia and perhaps elsewhere. Beads which are today heirloom beads in northern Luzon include only a few which are likely to be Chinese. Most of them are nineteenth or twentieth century European glass beads, though the most valued are cornelian and onyx beads, which may have been in the Philippines for a long time.

There are many parts of the Philippines where people have been living for a long time in relative isolation from the rest of the country. In Luzon many of the highland ethnic groups were never conquered by the Spanish either by the sword or conversion to Christianity. Some of these groups were not "pacified" until the Philippines was ceded to the United States. Beads currently or recently in use among these people are of two types: imported glass beads which filtered through from the coasts or beads which they make for themselves.

The most important native made beads are those of shell. Conus shell tops formed into discs are worn as beads, and the top part of the shell is sometimes cut into a bracelet. One of the most spectacular shell beads are those used by the Bontoc of northern Luzon. They are cut out of a large thick shell, perhaps a Tridacna clam, into flat square or hourglass shapes. These beads usually have two perforations and are strung on two fibres, worn with glass and other beads on necklaces. Glass imitations of these beads were made in the late nineteenth century in Bohemia (now part of Czechoslovakia).

Seeds and other plant parts are pressed into service for ornaments. The fibres of rattan, acaba (the textile banana), and nito (Lygodium spp.) are widely used for making belts, bracelets, bags, and other ornamental and clothing objects. Seeds are pierced for beads, especially common are Job's Tears (technically a fruit rather than a seed), found in a wide variety of earth colours, shapes, and sizes. An especially attractive variant of these was made by cutting a design of waves or zig-zags into their the hard shiny coats. When so treated they resemble glass trade beads. These are found

among the Ata and Bagoba of Mindanao. Others seeds are also used, and the nut of a Corypha palm is cut into beads and small ornamental objects; it is commonly known as vegetable ivory.

Among the glass beads used by the Philippine highlanders, the most common today are small glass "seed" beads, made in Venice, Bohemia, Japan, France and other countries. They are sewed onto bags or pieces of ornamental clothing into a wide variety of bold patterns which are formed through the use of the contrasting colours of the beads.

An important glass bead in the Philippines is the translucent red over opaque white bead known in the trade as "cornaline d'Allepo," made in both Venice and Bohemia. These are used by many people; some forty years ago the Hanunoo of Mindoro regarded them as currency.

Other beads which are found in ethnographic and private collections include the world-wide favourite hexagonal blue beads with white cores and the twelve corners ground off, made in Bohemia until the late nineteenth century. The "tile" bead is a short very slightly tapered cylinder made by pressing powdered glass and feldspar in a machine patented by the brothers Prosser in 1840 and 1841. These beads are recognizable by having one shiny and one pitted end. They were made in several European countries, notably France and Bohemia. They are most popular in yellow among the Bontoc of Luzon. A round bead with a thick equatorial zone made by the same method and also with a shiny and pitted end is found especially in Luzon.

One other bead material has become more important in recent times: plastic. While plastic beads can be bought in the market, some ethnic groups prefer to make them themselves. Three large plastic beads, one

closely resembling cornelian in colour, on a snake vertebrae necklace of the Bontoc of Luzon, was collected by the Philippine National Museum in 1969. These beads were neither molded nor extruded, as plastic beads are in a factory, but appear to have been handmade, probably by a Bontoc, from other commercially available plastic articles.

The making of plastic beads has become quite an industry among the T'boli of Mindanao, whose women are especially fond of beads. They buy rulers, pens, and other objects at the market, heat them, and reform them on a wire. Sometimes small holes are poked into the sides and are filled with other colours of plastic to make them resemble stratified eye beads, mimicking the glass beads from Venice which are popular among the T'boli heirlooms. These cheerful plastic beads are strung up with thin brass bells and other pieces made also by the T'boli by the lost wax method and are marketed through T'boli Arts and Crafts; previously they had been sold by a number of dealers. It is not certain when the T'boli began this beadmaking, but the first published notices of it are from the late 1970s.

Among the beads being used today by some of the more isolated ethnic groups are those which have achieved some degree of local fame and are considered valuable. These heirloom beads are passed along from one generation to another, and some of them are considered quite expensive.

Heirloom beads are not unique to the Philippines. In an earlier article on beads in Malaysia we saw that they played very important roles in the lives of many people in Sarawak, East Malaysia. There some beads could be worth as much as $US 5000, and some were up to 1000 years ago. But similar high values and great age are not found in the Philippines.

Only a few heirloom beads in the Philippines are much more than 150 years old. One of these is a colourless wound glass bead with a layer of gold or similar colored foil put on it and then given another thick layer of clear glass over the foil. In shape they are short cylinders. These wound gold-glass beads have been excavated from the fourteenth or fifteenth century cemetery of Bolinao on Luzon and are currently used as heirloom beads by the Ifugao of Luzon, who call them pang-aw. These beads have not yet been recorded from outside the Philippines, and their origin is still a mystery.

Another old heirloom bead is of wound glass that resembles the drawn chevron beads that the Spanish brought with them in the sixteenth century. They have white cores with a blue coat and red and white waves around the ends, and at first glance look quite a bit like real chevrons. The ends have even been flattened to make them appear like the faceting on genuine older chevrons. They must have been made after the Spanish brought genuine chevrons into the area. Some were excavated in the Batanes Islands, which lie north of Luzon on the way to Taiwan. These beads have a heavy lead content and are most likely Chinese. They have been found among the Palawan of southern Taiwan, in the Batanes Islands, in Luzon, and then in Sarawak (where many of them imitate the newer style of rounded chevrons with fewer layers). This suggests a southward route from Hangzhou or some nearby southern Chinese port.

It is interesting to discover that these two types of heirloom beads have their counterparts in archaeological excavations. However, when we compare the record of the Philippines to that of Sarawak we see a considerable

difference. In Sarawak some heirloom beads are a thousand years old, while in the Philippines, such great age is not seen. Why the difference? One reason may be that Sarawak received more large, attractive, and identifiable beads over time, as it was more frequently visited by Malay traders. We find none of the early Islamic beads in the Philippines that we find in Sarawak.

Another explanation seems to lie in the practices of the people in the past in regards to beads. In Sarawak, beads were buried with the dead, rather than handed down to descendants up until about the year 1000. Beads in burials are common in the Niah cave sites from about A.D. 900, but become very scarce in sites dating from the Song period (960 to 1276). At one, Tanjong Tegok, along the Sarawak River, only two beads were found in the whole cemetery.

In the Philippines, however, beads were being buried with the dead for a long time. The two late pre-Spanish cemeteries (ca. 1300 to 1600) of Calatagan and Bolinao contained thousands of beads, no less than 72.5% of of the 178 identifiable bead types found during the Age of Trade and Contact with the East. This did not change in the Philippines until the coming of two religions from outside. Both Islam, which became and remains important in the south, and Christianity, which the Spanish brought, discourage or forbid burial goods. The keeping of heirloom beads, rather than burying them with the dead appears to have been a practice which began after the spread of these two religions, and helps explain the relative youth of most Philippine heirloom beads as compared to the Sarawak ones.

The heirloom beads which have been most intensely studied are those of the Kalinga, sometimes called the "peacocks of the Philippines." For his master's thesis Benjamin Abellera studied the beads among the people of the village of Lubo in Kalinga-Apayao. There each heirloom bead is given a name and is ranked according to its value. The value of beads is determined subjectively through a combination of criteria, including beauty, rarity, durability, size, and age. The most valuable beads are of stone, perhaps at least in part because of their durability. A fine, large onyx bead is worth a carabao (a water buffalo). Smaller onyx beads and some cornelian beads can be worth a carabao for two to five, or a large boar or large sow.

As for the glass beads, the most valuable are worth a small pig per bead. Among the recognizable ones are the false chevron bead and several which were made in Venice in the early nineteenth century. In general, the value of the beads falls just as we might expect them to in accordance with what we can judge about their age. The least valuable beads are small cornaline d'Allepo beads, which require a string to purchase a large hen. These beads are still being made.

Although the value of these heirloom beads in Lubo is expressed in terms of what animal they may be exchanged for, they are rarely used as currency. They are too highly regarded to function simply as money. They do have worth, so that they can serve as a unit of account, a store of value, and a standard of debt or deferred payment, but only in a pinch as a rate of exchange.

Along with the economic functions of heirloom and other beads in the Philippines, two other major uses are common. One is decoration, and in some cases it appears that decoration is the primary use. Another important

use of beads is that they serve as social markers. They are particularly important in distinguishing different ethnic groups, and this has been documented for much of the Philippines. They also distinguish social status within groups, whether indicating a person's rank or wealth, gender, marital status or other stage of life. Very often, all of these functions overlap. Not only are the beads themselves regarded as important, but the way in which they restrung is also considered by the Kalingas and others as an important factor in their beauty, and hence value.

To summarize, as in every country, the story of beads in the Philippines reflects the unique historical, geographic, and ethnographic forces which have worked upon her people to shape her destiny. For a long time, the Philippines was more isolated from the currents of historical changes than were many other parts of Southeast Asia. Her first beads, as those anywhere, were locally made from local materials, but for a long time after the islands began importing beads there was a sameness about them, dominated as they were by the plain monochrome Indo-Pacific beads.

Suddenly that changed around A.D. 1200. The change was an impetus from the outside: China thrusting itself onto the stage of Southeast Asia and opening many ports to her trade for the first time. The products of the rich islands of the Philippines appealed to China, and in turn, some of the fanciest Chinese glass beads of the day found their way thither.

Another dramatic turn of events happened when the Spanish arrived. By no means did the Philippines immediately fall into the hands of the Europeans, but years of colonization have left their mark on the beads as well as the language, religion, art, and culture of the archipelago. A bit earlier,

another cultural stream, the growing tide of Islam, had entered the Philippines from the south, and the nation is still feeling the effects of these rival systems of belief.

Beads are important to many people in the Philippines. There are a growing number of sophisticated collectors in the cities. As long as they do not cause the destruction of ethnic identity, as Abellera fears nor the destruction of archaeological sites through looting, they can become a force of good for the preservation of this important part of their nation's heritage.

Researchers are grateful to the past and present staff of the Philippine National Museum for forming and maintaining the unique treasure of the Type Collection of Philippine Beads. While the collection needs constant work and updating, it is the only one of its kind in Asia and provides a wealth of information on these small but important artifacts.

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