BEADS FOUND IN INDONESIA

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by
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Mrs Sumarah Adhyatman is an internationally known ceramic scholar, the Director and Curator of the Adam Malik Museum in Jakarta, and a Member of the Board of Trustees of the National Museum in Jakarta.

Mrs Adhyatman's interest in export ceramics goes back to 1970. In 1973 she and Mr Adam Malik co-founded the Ceramic Society of Indonesia, of which she has been a Board Member and President. Both she and her husband, Mr T.K. Adhyatman, have promoted the activities of the Ceramic Society of Indonesia. Both are now Honorary Chairmen of the Society.

Mrs Adhyatman has written many books on ceramics, the most well known being Tempayan, Martavans (2nd ed. 1984); Antique Ceramics Found in Indonesia - Uses and Origins (1985) and Kendi, Indonesian Tradition Water Vessels (1987). In addition to ceramics, Mrs Adhyatman has also studied old beads found in Indonesia and her book Manik-Manik di Indonesia/Beads in Indonesia co-authored with Ms Redjeki Arifin, was published in June 1993.

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BEADS are objects usually of round shape, which are pierced and strung together to decorate the body or an object. They are made of organic materials such as shell, bones, wood, wood-resin, seeds, coral and inorganic material such as glass, clay, ceramics, stone and metal.

Their durability, portability and universal attraction have made beads units of currency in many parts of the world. They represent the oldest form of art and were probably the first durable ornaments of men, desired not only for their beauty but also for their protective qualities.

It appears that since prehistoric times beads have played an important role in funerary rites in Indonesia as they are found in various stone grave sites from the prehistoric period (before AD 400) as in Pasemah (Sumatra), West Java, Gunung Kidul (Central Java), Besuki and Jember (East Java), and in Gilimanuk (Bali). The beads were often found with earthenware, ceramics, iron tools, bronze and gold ornaments.

In the classical period (AD 500 - AD 1500), beads might have been used as ceremonial prayer beads and also as adornment. Stone reliefs at the Buddhist temple Candi Borobudur depict court ladies wearing necklaces of beads. About AD 1400, the fashion of wearing beads in the court might have disappeared. Stone statues of royal ladies of the kingdom of the Majapahit period in East Java (AD 1300 - AD 1500) are wearing necklaces resembling gold jewellery. For the present, beads still play an important role as adornment and status symbol as well as in traditional ceremonies in various parts of Indonesia, especially in Kalimantan, Nusa Tenggara and Irian Jaya.

The study of beads is relatively new. Only a few scholars have made a serious study of beads and their distribution. In 1928, Mr Horace Beck contributed a classification and nomenclature of Beads and Pendants to standardise bead terminology. Another well-known scholar is Mr WNG van der Sleen who gathered and published data from his studies of trade beads all over the world. For the last decade we owe much to Dr Peter Francis Jr from the Centre of Bead Research in the United States who has revealed the basic outlines of the manufacture and the distribution of beads in Southeast Asia.

However, the origin and dating of many old beads are still a mystery and will undoubtedly continue to present difficulties in the future. Also the process of beadmaking of many early beads cannot be fully explained and remains an educated guess.
In the last decade, everywhere, the interest in old beads has grown. Not only as unique ornaments but also as important artifacts in archaeological context. It is now more greatly realised that beads can be used to indicate the degree of mercantile, technological and cultural sophistication.

The increased awareness of beads as a commercial commodity has brought about the development of new bead centres in Indonesia. A traditional stone bead making centre in Java, known since the 1930's, is to be found in Sukabumi, West Java. A stone bead making centre was recently started in Pacitan, East Java. New glass bead making centres have sprung up in Jombang, East Java, in Solo, Central Java, and in Bogor, West Java. These bead centres are producing imitations of old beads which they are already exporting. Many rare beads such as the 'pelangi' (rainbow), the bird beads and the turquoise green translucent beads have been copied since the late 1980's, but the designs are stiff in comparison with the original. The transparent green beads are more bottle green and do not have a worn look.

The most important trade beads are beads made of semi-precious stones and glass.

**BEADS OF SEMI PRECIOUS STONES**

Beads made of carnelian, onyx, rock crystal, amethyst, jasper, chalcedony and an unidentified soft green stone were found in Indonesia. The largest number are carnelians of various shapes and sizes, followed by rock crystal. The largest stone bead is a carnelian bead 5 cm long.

The majority of the carnelian, rock crystal and onyx beads originate most probably from India and were produced at Ratanpur near Bombay which has been a major export site of stone beads for thousands of years. A typical characteristic of the Indian carnelian beads is their even red-orange colour which is achieved by heating the stones for 24 hours. Stone bead making with advanced Indian techniques probably developed in Indonesia and other Southeast Asian bead sites at the beginning of the Christian era. Based on bead finds and bead making waste near Palembang, Sumatra, the capital of the old Kingdom of Srivijaya (AD 700 - AD 1200), the site must have been a large stone bead making centre. Agate deposits are found in abundance in West Sumatra.

The oldest shapes of stone beads exported to Southeast Asia are most probably the oblate and the barrel shape. After the first millennium, faceted forms became popular and around the 12th century, the bicone became the most popular shape.

Decorating stone beads with soda was also invented in India. Etched carnelians were very much in demand in ancient times as well as cameos from onyx. India has also invented man made onyx about four thousand years ago. Ordinary banded agate can be made into onyx by soaking it in honey or sugar water which is absorbed by the porous grey layers, not the denser white ones. Heating carmelises the sugar, turning the white layers brown.

The new carnelian beads made in Indonesia can be easily identified by their light colour and there are no age marks. The copies of rock crystal are coarse to the touch and are not as finely cut as the old ones.

**GLASS BEADS**

Glass is made of a composition of quartz sand (silica), alkali (soda, potash, sometimes lead) and lime. Glass is coloured by oxides, cobalt for blue, iron for green, copper for red, uranium for yellow and manganese for purple.

Glass, mainly in the form of beads, appears commonly in archaeological sites in Southeast Asia in the first millennium BC and more or less accompanies the regular adoption of iron. There might be a technical link between glass-making and iron technology in this region (L. Glover and J. Henderson, 1994, 141).

The earliest glass originated more or less simultaneously in Mesopotamia, Syria and in Egypt in the late 3rd millennium BC, possibly from a development in the production of faience. But it was only in the Islamic period (AD 600 - AD 1400) that the bead products from West Asia and the Middle East were spread over a vast region. The beads were found in Sub-Saharan Africa, Southeast Asia and Central Asia. The glass beads were made by many methods: winding, segmenting, folding, mosaic fusing and fusing rods. The trade in beads was not always in the shape of finished products; raw materials have been traded more often than finished beads. Mosaic glass bars from which beads could be easily manufactured were an important trade item since the Roman period (Francis 1991, 6).
The most common motif is eye beads. These beads were made based on the belief in the evil eye. It is known that at present many Moslems in West Asia are still wearing eye beads as amulets. Among the rare beads from West Asia are the segmented gold glass beads.

From the 4th century BC, India was also an important exporter of drawn monochrome glass beads in red, orange, blue, yellow and green. The centre was in Arikamedu, South India and the beads were found in Africa, China, Korea and Southeast Asia. Bead researchers first called them ‘trade wind beads’, while the small orange and red coloured ones are called ‘mutisalah’, a term used by the people in Nusa Tenggara. A new name for these beads indicating their distribution, colour, manufacturing method and material has been introduced by Dr Peter Francis Jr. They are now called ‘Indo-Pacific beads’ which is short for ‘Indo-Pacific Monochrome Drawn Glass beads’.

In the 2nd century AD, bead making with the Indian drawn technique was already transferred to Mantai in Sri Lanka, Oc-eo, Vietnam, and Klong Thom in Thailand, and in the 7th century AD to Palembang in Sumatra. Finds of large amounts of beads and wasters during excavations near Palembang, Sumatra, the former capital of the kingdom of Srivijaya, confirmed that the site was an important glass bead centre in the 7th to 13th century. Another important bead centre from the 12th to 14th century was in Muara Jambi in Sumatra.

An early bead making site is in Karawang in West Java, while the Bondowoso and Jember area in East Java were producing the most beautiful mosaic beads. The majority of beads were found in megalithic stone-graves called ‘pandhusa’ or Chinese graves by the villagers. Many of these stone graves were already disturbed when the first Dutch archaeologists started their excavations in 1898. The analysis of a large green and yellow eye bead revealed that it has a high sodium content, 21.6% and 3.12% lead. The beads must have been produced locally, as many wasters and fragments of green glass were found. The richest finds are in the mountainous area between Jember and Bondowoso where illegal digging continues up till now. They are also called core beads since they have a large core made of inferior glass. These East Javaese beads were formerly mistakenly called ‘Majapahit’ beads, a trade name given by antique dealers. They are much earlier as they are found in prehistoric stone graves. Their manufacture could have lasted until the 10th century as they were found with Tang ceramics (AD 618 - AD 906). They are now called ‘Jatim’ beads short for Java Timur or East Java.

Among the Jatim beads have to be included the large yellow monochromes about 2 to 4 cm long. They may be made of monochrome yellow Indo-Pacific beads melted down again to form the outer layer.

The techniques of bead making can be observed on the beads themselves. On wound glass beads, one may observe ‘fabric’ which encircles the perforation or inclusions inside the holes. Monochrome drawn beads can be recognised by their ‘fabric’ which has striations running parallel to their perforations. It is known that glass beads have been altered since early times which makes it difficult to identify them.

Chinese wound beads are characterised by uneven shapes, bubbly glass, large perforations, small peaks of glass at the ends and white perforation deposits. There are several types of Chinese glass beads which possibly date to the 17th-19th centuries, but the most dominant are the small coil beads (about 1 mm long) which made their first appearance in 9th to 10th century sites, such as in Barus, Sumatra, ‘Seunang’ Temple, Kyongju, Korea and at Niah, Sarawak.

Chinese coil beads with a heavy lead content became the dominant beads in Southeast Asia by AD 1200, replacing the Indo-Pacific beads. The red coil beads which resemble and most probably copied the mutisalah Indo-Pacific beads are the most valuable in East Indonesia. In Banten Girang, West Java, an important trading site of the 10th to 16th century, 575 coil beads and Chinese type wound beads in yellow, white, green, blue, turquoise blue, orange and red colours were excavated. They were probably locally made (by Chinese immigrants?) as many wasters, iron slag and melted glass were found. Most interesting are the finds of mosaic core beads made with an inferior green glass and a thin outer layer of striated mosaic. They remind us of the Jatim mosaic core beads in East Java.

European beads made their appearance in the 16th century. Many Venetian and Bohemian mosaic beads and millefiori (thousand flowers) are great favourites in Kalimantan where they are given special names such as ‘lukut sekala’; lukut meaning bead and sekala meaning big. India has been copying the millefiori from Venice since the 1940’s. Bohemia worked many red tubular glass beads with Arabic calligraphy for the Muslim market. Like the Chinese, the Europeans might have responded to the Indonesian market. The valuable large hexagonal red beads from
Bohemia called *laneang* in Kalimantan resemble the carnelians which are precious heirlooms. Other favourites are yellow plastic beads sold as amber.

Nineteenth century European tiny monochrome beads of various colours called seed beads were extensively used for bead work in Indonesia, decorating clothes, bags and household articles.

**Bibliography**

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