



The Indian Ocean and the Indo-Pacific Bead: Mapping a Key Artifact Category from the Pattanam Excavations

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The Indian Ocean Glass Bead Database

Archaeologically, glass beads are an under-exploited artifact category, in part perhaps because of the challenge of visualizing regional and chronological patterns when relying on region- or site-specific reports. Yet archaeological and ethnographic studies suggest that glass beads have great potential for identifying and tracing a number of socio-economic and cultural processes, including craft production, trade, technology transfer, and the materiality of style and identity construction.

Here we begin to provide a context for the glass beads from Pattanam and other sites with the development of a GIS database. Focusing for now on published data for Indo-Pacific beads from South and Southeast Asia, the database includes geo-coordinates, excavation status, available chronology, range and number of glass bead styles, evidence for glass and/or bead manufacture, and geochemical analyses (where available).

The Glass Beads from Pattanam

The 2007-2009 excavations seasons at the early Malabar port site of Pattanam produced over 10,000 glass beads, the most common of which is the *Indo-Pacific bead (IPB)*. IPBs are small monochrome drawn beads, usually less than 6 mm in diameter (photos below left). Various called 'trade wind', 'mutisalah', or 'seed' beads, they are striking in their homogeneity of colors, styles, and shapes, as well as their ubiquity throughout Indian Ocean sites. (Other selected bead styles from Pattanam are also shown below for contrast, but they differ from IPBs in manufacture, complexity, quantity, and range of distribution.)

Pattanam: Indo Pacific Beads



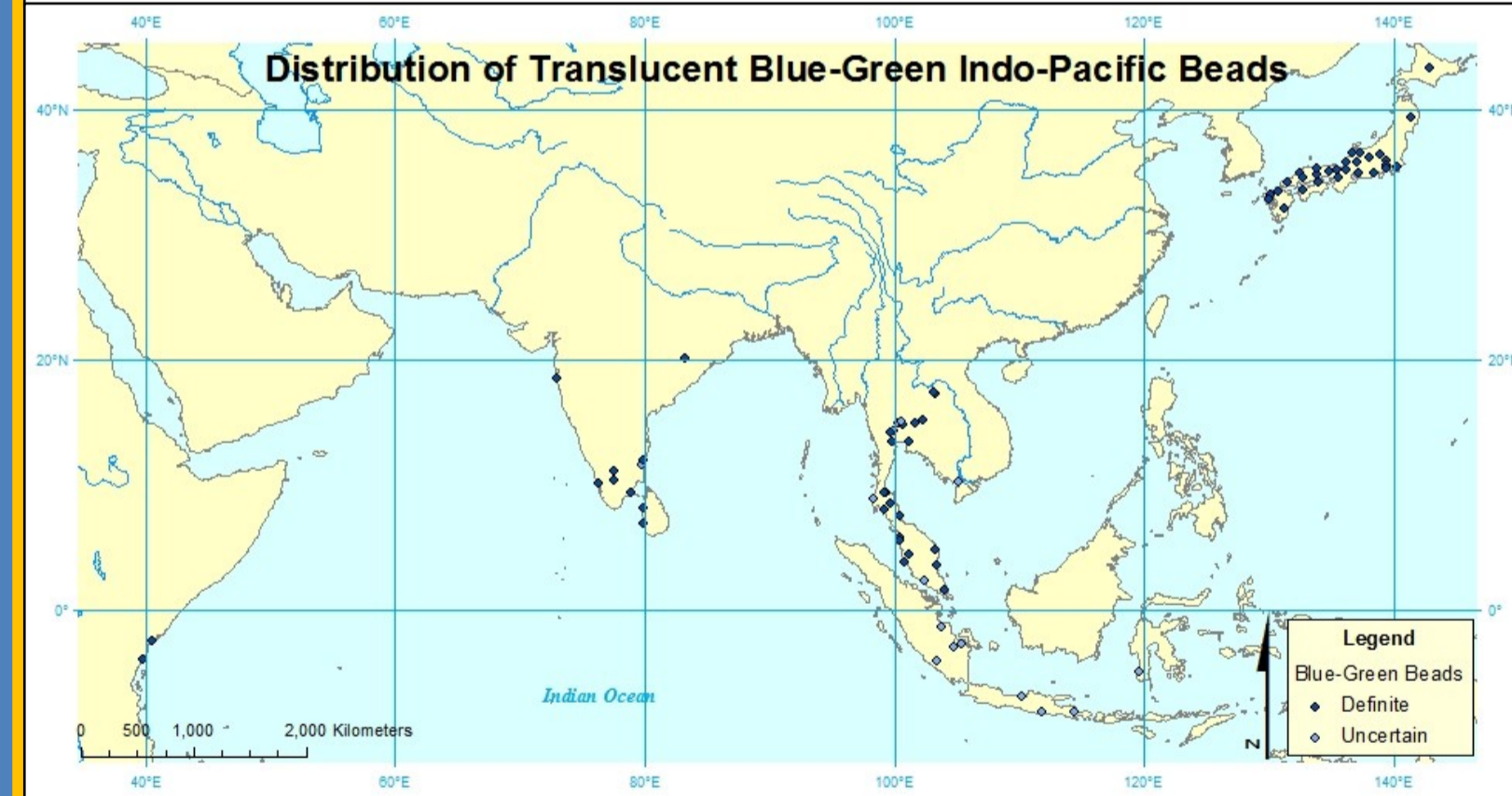
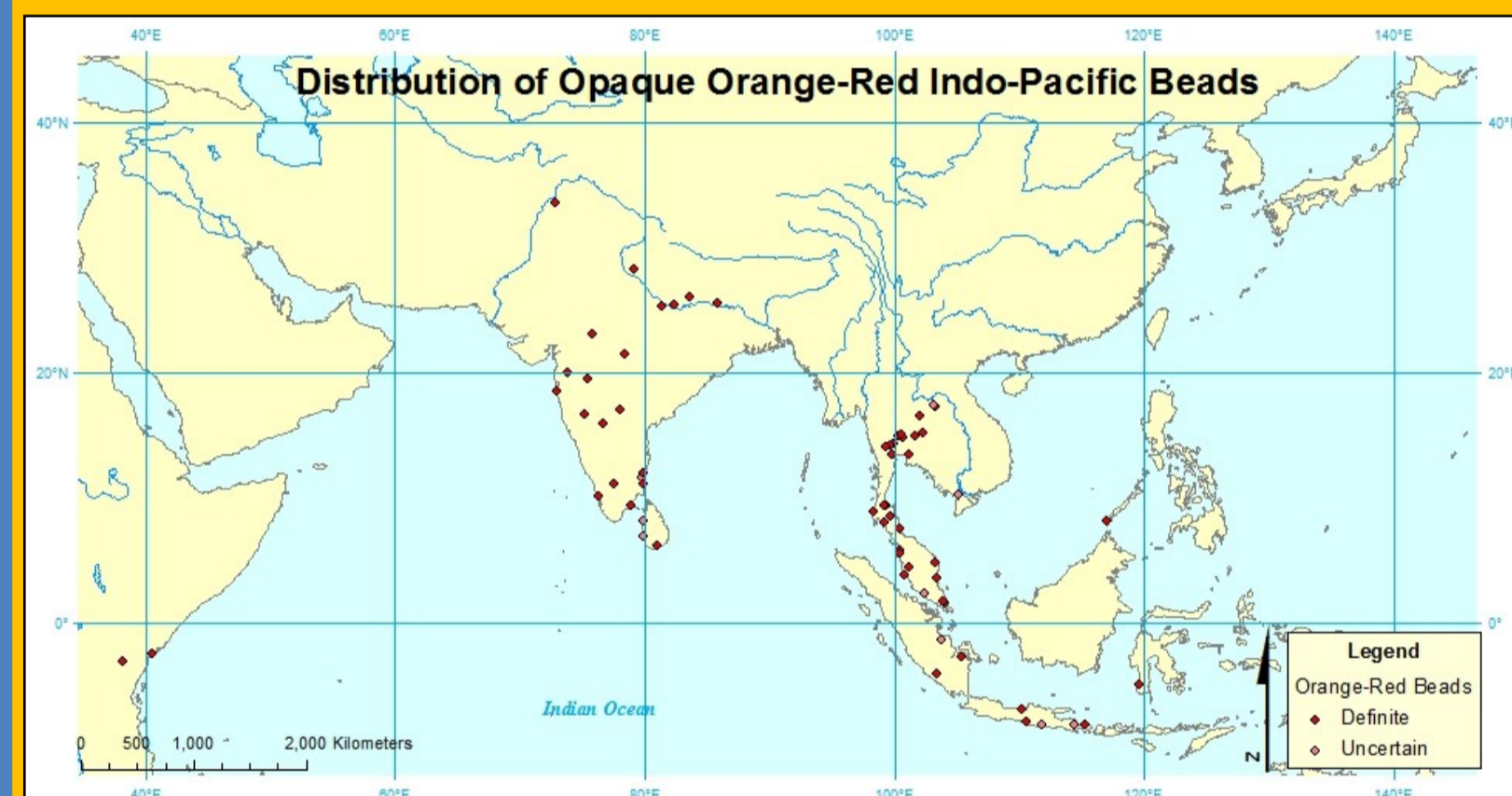
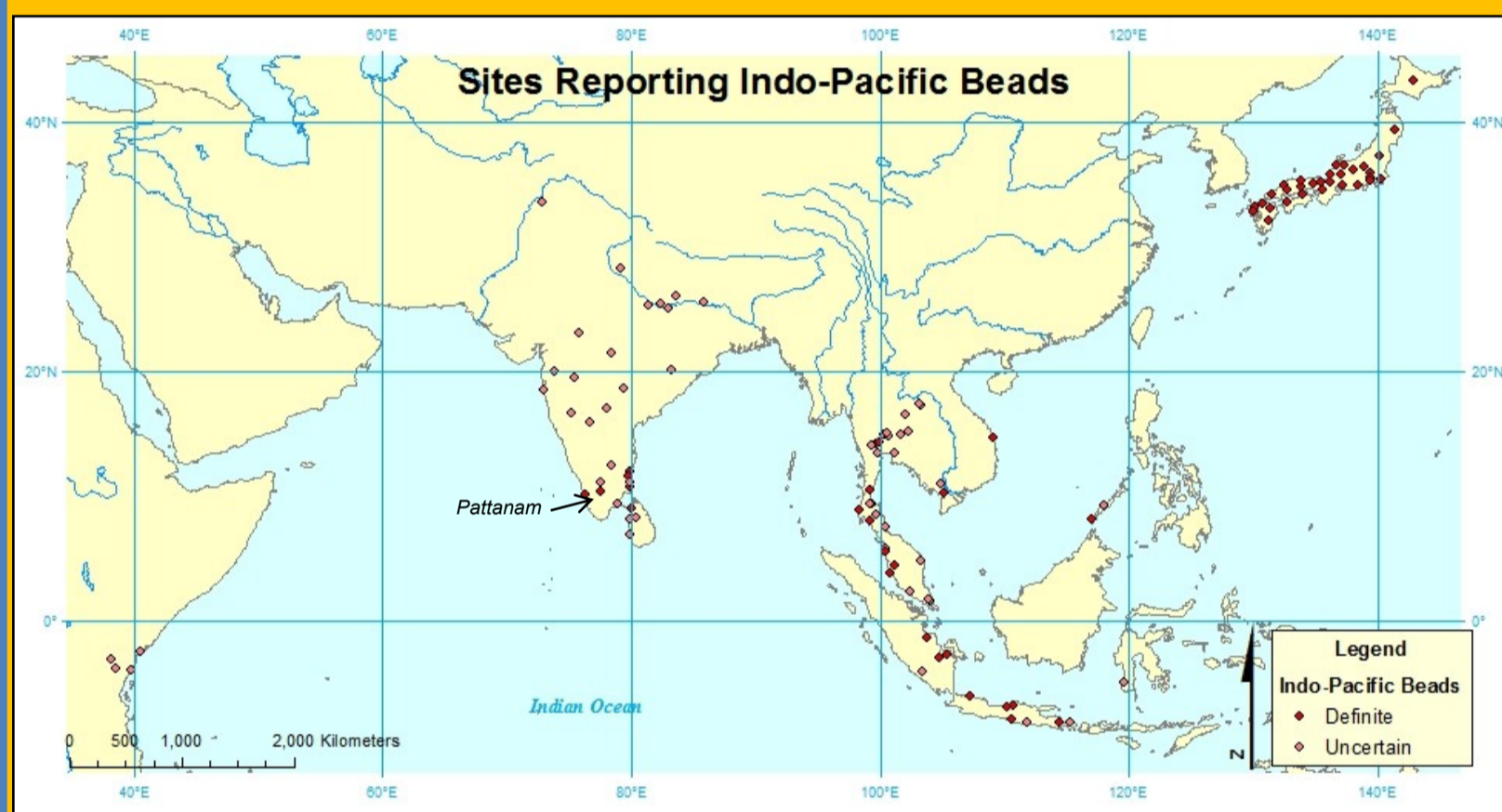
Pattanam: Other Selected Bead Types



S/SE Asia Distribution of Two IPB Sub-Types

Indo-Pacific beads appear in a limited range of colors and degrees of diaphaneity. One way to exploit the wide occurrence of IPBs is to try to map individually some of the more common sub-types. Two sub-types appearing frequently at Pattanam (and most regularly reported at other sites) are *opaque orange-red IPBs* and *translucent blue-green IPBs* (see photos far left). The maps below demonstrate some interesting geographical variation between the two, particularly the (possible) prevalence of the former in central and northern India and marked preference for the latter in the Yayoi burial complexes of Japan.

The next step of this project will be to map the distribution of other IPB bead sub-types from Pattanam. *Opaque black beads* (photos far left), for instance, are the most common of the IPBs from the 2007 Pattanam season, yet their presence in Southeast Asia is relatively sparse compared to the opaque orange-red and translucent blue-green IPBs. As the database progresses, we may find that the opaque black IPBs from Pattanam form part of an exchange network that encompasses the western Indian Ocean instead. Other patterns may also emerge as all the bead types found at Pattanam are eventually mapped.



Chronological Distribution of Sites with IPBs in S/SE Asia

Although Indo-Pacific beads are the most common and wide-reaching of all the beads styles we have studied to date, previous studies of IPBs have not been as comprehensive, standardized, or systematic as we believe the data warrant. IPBs may be undervalued as a source of cultural insight into past societies because of their small size, simple construction, and ubiquity. Yet we argue that this very universality – or redundancy – of the IPB is the key to understanding both its relevance as material culture and the socio-economic systems that underpinned glass bead production, distribution, and consumption. Unlike stone and complex glass beads, IPBs arguably encode little of the communities that produced them – other than perhaps size, color, and diaphaneity – so they are able to enter a new cultural system with little 'imprint' from their source of manufacture. The hallmark of the Indo-Pacific bead may well be its very lack of individuality: its minimalist character allows it, not only to be manufactured and exported in bulk, but also to be adapted readily to the specific stylistic demands of any region or community in the Indian Ocean. Therefore, rather than thinking of an IPB strictly as an artifact per se, it makes more sense to liken it to a byte of data: stylistically less significant at the point of manufacture by local Indian (and later, Sri Lankan and Southeast Asian) glass bead artisans, but made culturally relevant at the point of consumption when fashioned by other artisans into systems of ornamentation. Such a perspective makes it possible to model the regional and chronological variations of IPB distribution seen in the series of maps below.

It must be noted, however, that chronological control for Indo-Pacific beads in the published literature is sporadic, for several possible reasons: many bead-bearing sites represent surface or incidental finds; excavated beads are infrequently cited with stratigraphic designations; and both the use and production of IPBs persisted over millennia. The maps below represent those sites with IPBs that were 'active' (i.e., had evidence for occupation) during the five broad time periods presented below. The periodization of the last 2.5 millennia into half-millennia intervals was chosen because it allows us to visualize broad trends over time, despite the fact that cultural phasing (Early Historic, Medieval, etc.) differs both within and between regions of South and Southeast Asia.

At Pattanam, IPBs dominate the bead corpus during the Early Historic and Medieval phases (Periods 1-3 below), reinforcing that idea that Pattanam was a distribution node for IPBs produced in south India to meet both local and external demand. The maps also indicate a growing IPB presence at Southeast and East Asian sites from Periods 2-4, with a corresponding decline in South Asia, suggesting that Southeast Asian demand was being met by emergent localized Southeast Asian bead making sites. The impact on south Indian bead production centers (such as Arikamedu and perhaps Porunthal in Tamil Nadu) as well as local south Indian political economy, although an important question, remains unclear.

