HEIRLOOM BEADS OF THE KACHIN AND NAGA

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The heirloom beads of the Kachin and Naga – known respectively as khaji *and* deo moni *– were discussed at length in British-colonial literature, but remained unidentified until the present day. The homelands of the Kachin and Naga straddle the northern Burma/Northeast India frontier. Safe from the great civilizations which rose and fell in the plains, the cultures of these hill peoples remained relatively intact until the arrival of the colonial British in the 1830s. The author's research reveals that* khaji *and* deo moni *are orange Indo-Pacific beads of a type traded from southeast India – probably Karaikadu – between 200 B.C. and A.D. 200. They were found by the Kachin and Naga in ancient graves. The trade that brought these beads to the region operated on a considerable scale. Ivory and fragrant oils destined for the Mediterranean world were exchanged for Indo-Pacific beads, cowries, chank shells, and carnelian beads, ornaments still worn by the Kachin and Naga today.*

INTRODUCTION

To quote J.P. Mills, ethnographer and British-colonial administrator in Northeast India in the 1930s, "The spade, the chief tool of the archaeologist, has hardly been used in Assam" (Mills 1933:3). Although more work has been undertaken in recent years in Northeast India (Medhi 1990:37-44; Singh et al. 1991), many of the prehistoric and early historic sites have yet to be accurately dated, and the region is poorly documented in publications on the archaeology of South Asia. Kachin State in Burma's far north has been equally overlooked by archaeologists whose efforts have been focused on the great river valleys to the south. Moreover, in Northeast India and Kachin State there is little discernible reference in the literature to ancient beads.

India's Northeast – known in British-colonial times as Assam – forms a physical and cultural bridge between India, Southeast Asia, and China, and through it lay the great migration and land trade routes between east and west (Fig. 1). Its history therefore is that of the meeting of Austro-Asiatic, Indo-Aryan, and Tibeto-Burman cultures. No other part of India has such ethnic diversity; nearly two hundred separate tribes still live in the region today. The earliest inhabitants are thought to have been of Austro-Asiatic/Negrito stock. Isolated islands of Austro-Asiatic speakers still remain, both in Assam as well as in eastern India, Bangladesh, and Southeast Asia, a record of a far distant period when Austro-Asiatic languages were spoken throughout northern (and possibly southern) India and Southeast Asia. The remains of monoliths and stone tools belonging to these peoples are scattered over the hills and

Figure 1. Northeast India and Burma during the British-colonial period, showing the main trade route to China via Yunnan (Stevenson 1944: inside cover).

plains of Assam (Bareh 1985:5; Sharma 1991:47). The Austro-Asiatic peoples later retreated to the Khasi/Jaintia Hills, supplanted by successive waves of Mongoloid Tibeto-Burmans who are thought to have originated in northern China and arrived in Northeast India during the middle of the Neolithic period (Gopalakrishnan 1991:13-22; Langstieh and Reddy 1999:265).

By the first millennium B.C., a kingdom known as Pragjyotisha had arisen in northern Assam. Its capital was near present-day Guwahati on the river *Lauhitya*, the ancient name of the Brahmaputra. Pragjyotisha was first recorded in the ancient Vedic text, the *Mahabharata* (Badadur 1933:1, 16). Its early inhabitants were referred to as *Kiratas* and *Cinas*, a "golden skinned" people thought to be of Indo-Tibetan origin (Lahiri 1991:10-11). In the *Periplus of the Erythraean Sea* (1st century A.D.) (Schoff 1974) and Ptolemy's *Geographia* (2nd century A.D.), the region is called Kirrhadia, thought to refer to its *Kirata* population. Kamarupa, as *Pragjyotisha* was later known, probably stretched west as far as Nepal and south to West Bengal (J.N. Choudhury 1991:89).

Aryan tribes from Central Asia spread across the Ganges plain in the late 7th century B.C. The Ayranisation of Pragjyotisha is implied in the *Ramayana* and *Mahabharata* by the legend of the semi-mythical king Naraka who killed the *Kirata* king Ghataka, conquered Pragjyotisha, and settled Aryans in his kingdom. Naraka's true origin is obscured by the legend in which he stole the earrings of Aditi and was subsequently killed by Lord Krishna (Badadur 1933:20; Lahiri 1991:10). It is said, however, that Pragjyotisha's population remained mainly non-Aryan, probably inhabited by Indo-Tibetans of the Bodo or Boro group, the *Kiratas* of the ancient texts (Badadur 1933:20-21). Linguistic evidence implies that at one time the Bodo people extended over the whole of the Assam Valley, northern and eastern Bengal, and the surrounding and intervening hills, with the exception of only the Khasi/Jaintia Hills (Badadur 1993:20; Barua 1951:6). The kingdom of Pragjyotisha/Kamarupa lasted until the 10th century A.D. Over the successive centuries, groups said to be of Bodo origin built kingdoms in the Brahmaputra Valley under various tribal names, among them the Chutiya, Kacharis (13th century), and Kocches (16th century). The Ahom, a Tai/Shan group from Burma's Hukawng Valley, entered the Brahmaputra Valley in the 13th century and by the 18th century held most of the region, successfully resisting Mughal invasion. The Ahom gave their name to the region, softened from Ahom to Assam. In the 19th century the Ahom were fatally weakened by the Burmese and Assam finally came under British administration in 1836. British India's capital was Calcutta, in Bengal, to the south of Assam.

After India's Independence and Partition in 1947, much of the state of Bengal was lost to India, becoming East Pakistan, later Bangladesh. As a result, Assam lost Chittagong, its main seaport. In 1911, the capital of British India had been transferred from Calcutta to the old Mughal capital, Delhi. This left Assam both geographically and politically isolated, almost completely landlocked by foreign states, and accessible from the rest of India only by a narrow north-south corridor some 30 miles wide through the Indian state of East Bengal. Economic stagnation, political tensions, and separatist movements followed. The Assam of British-colonial times was divided into seven separate states: Arunachal Pradesh, Nagaland, Meghalaya, Manipur, Mizoram, Tripura, and Assam, known collectively as Northeast India. Political tensions continue today. Permits are required for several of the seven states which are time-consuming to obtain, creating hurdles for the fieldworker. Foreigners also require permits to enter most of Burma's Kachin State.

Overall, conditions are not favorable for the archaeologist or ethnographer. Much of the region is still covered with dense tropical forest, with an exceptionally high rainfall, high humidity, and a fertile but acidic soil. Northeast India in particular lies at the foot of the vast Himalayan range at the point of impact of tectonic plates. It is therefore prone to earthquake and flood, and in the plains much must lie buried deep below layers of silt deposited over millennia by the frequent flooding of the mighty Brahmaputra (Bhuyan 1993:27; Gait 1905:20).[1] Monoliths of the prehistoric period still remain, however, particularly in the formidable hill ranges to the south and east of the Brahmaputra plain. These remote and inhospitable hills, which spill across the border into Burma, became places of refuge for peoples who, for whatever reason, were forced to migrate or flee from the fertile plains below. Safe from the predations of the great civilizations which rose and fell in the plains, the cultures of these hill peoples – the Kachin (Singpho), the Naga, and many more – remained relatively intact until the British arrived in the 1830s. Their migration myths and heirlooms, particularly their heirloom beads, were passed from generation to generation over the centuries, and reveal much about their ancient origins.

HEIRLOOM BEADS

The concept of handing down property from one generation to the next is an ancient one.

Formal patterns of what bead scholar Peter Francis, Jr., has called "bead heirlooming" still exist among many

minority groups, including those in India and in island and mainland Southeast Asia. As we have seen, many of these hill peoples were marginalized, driven by newcomers to more protective mountainous regions where they kept themselves apart. Heirloom beads played an active role in this isolation. They were social diacritical marks, announcing their owner's social status, gender, wealth, religion, age, birth order, position in the family, or marital status, and above all, ethnic identity (Francis 1994:95; 2002:181-182). Valued beads probably became true heirlooms only when they were either irreplaceable or very difficult to obtain. Their origins became obscured over time and they were sometimes ascribed with a magical source, or associated with their owners' ancient past or migration myths.

Strict rules generally governed the care, use, and inheritance of heirloom beads, and they were often used in marriage and burial rituals. Their rarity gave them great value, and they represented stored wealth in communities that had no coinage. They were sought as booty in raids against nearby villages, and in times of great need they could be bartered. Although heirloom beads were worn by men, they were normally worn in greater profusion by women, often the only form of wealth women controlled. They were frequently part of a girl's bride price. The most valuable heirloom beads were often stored and worn only at feasts. Some beads were considered too valuable to wear and were just displayed in the houses of the wealthy during feasts.

Francis poses the question: Do the oldest heirloom beads of Southeast Asia date to a period of cultural crisis in the history of their owners? Did heirlooming begin when the peoples involved experienced a traumatic event, such as being driven into the uplands. About two-thirds of the groups studied by Francis fit this hypothesis (Francis 2002:181, 192).

Heirloom beads were frequently copied by successive generations of glass artisans or entrepreneurs. The imitation beads were often made from a different material and were sometimes cheaper. These beads were generally recognized as fakes but could nevertheless be successfully bartered by outsiders for local goods, and were worn by the less wealthy. Along with other novel beads of exotic origin which traders thought might appeal, these imitation beads traveled along a network of much later local and international trade routes in subsequent centuries, and in Southeast Asia came from as far away as China and India, and later from Venice, Germany, Holland, and Bohemia. These beads sometimes acquired a mystique of their own and can be found alongside much older beads in heirloom necklaces, their source being the subject of the author's present research.

THE ORIGINS OF *KHAJI*, THE HEIRLOOM BEADS OF THE KACHIN

Like the Naga, the Kachin (or Singpho) are a mountain people of Tibeto-Burman origin. They occupy a large horseshoe of inhospitable territory in northern Burma which overlaps into Assam to the west, extending from the Hukawng Valley eastwards along the Tibetan frontier and down to and overlapping the Chinese frontier as far south as Kentung in Shan State. The Kachin claim origins in the Tibetan plateau. From there they migrated gradually south through Yunnan, arriving in northern Burma in the 16th and 17th centuries, to the exclusion of the Chin, Palaung, and Shan. Always a warlike group until the British-colonial period, the Kachin spent much of their time in inter-tribal warfare and in raiding the Burmese and Shan in the adjoining plains (Stevenson 1944:8). *Khaji* (also spelled *kaji*, *kadji*, and *kashi*), the heirloom beads of the Kachin, were frequently referred to in British-colonial literature, although the material from which they were made was little understood and contemporary photographs do little to reveal their origins (Fig. 2):

> The ornaments generally worn by (the Kachin) are amber ear-rings, silver bracelets, and necklaces of beads, a good deal resembling coral, but of a yellowish colour, and these are so much prized by them that they sell here for their weight in gold (Pemberton 1873:104).

> A woman's most prized ornament is a Khaji – a necklace of terracotta coloured stones which is only obtainable in the Hkanung country in the Putao district.[2] These are difficult to obtain and are kept as heir-looms in a family. A Duwa (local chief) may stipulate that a Khaji for his daughter should be sufficiently long to equal the girth of the largest house post in his house (Carrapiett 1929:16).

> Lords and rich people wear round their neck a string of precious pearls, kashi, of a yellow colour…. Besides necklaces, well-to-do ladies also wear kashi resembling that of the men (Gilhoedes 1922:148).

Despite the many ancient beads available on the Burmese antiquities markets in Rangoon and Mandalay, no information is available about the *khaji* of the Kachin. In Myitkyina, the capital of Kachin State, the author was shown a necklace of small, opaque, orange glass beads arranged on either side of a central silver bead (Pl. IA), interspersed with wound red and black-and-white-eye glass beads dating from the 19th or early 20th century (*see also* Fig. 2). The orange beads were clearly much older and were ancient Indo-Pacific beads. This raises the question: How had Indo-Pacific beads reached the very far north of Burma to become the heirloom beads of the Kachin?

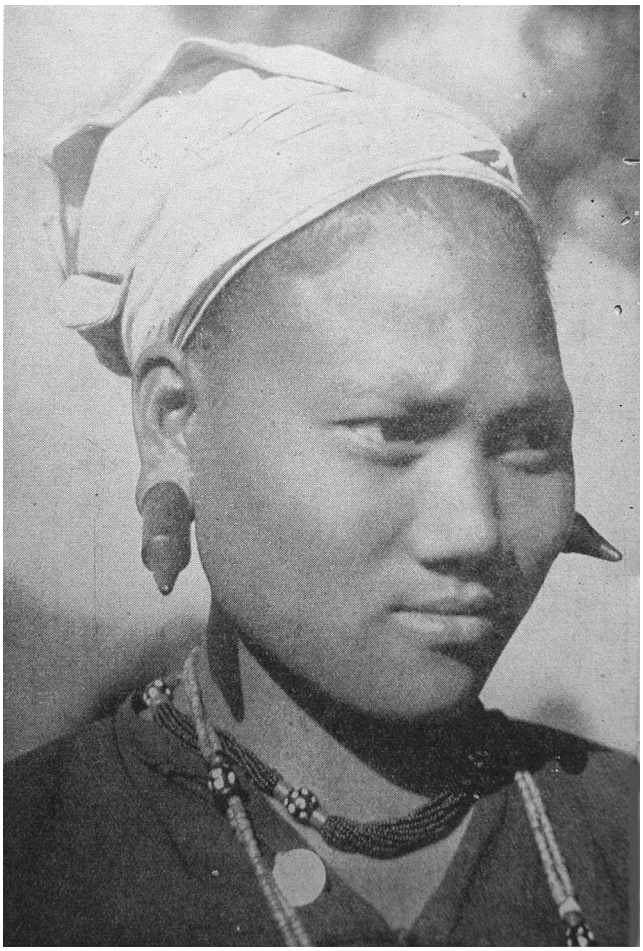

Figure 2. A Hkahku Kachin girl. The longer necklace appears to consist of *khaji* beads. She also wears amber ear plugs. According to British-colonial sources, amber earplugs were very costly. Today they are still regarded as heirlooms by the Kachin. The amber comes from mines within Kachin State which today are much depleted. It is rare to find amber of sufficient size to make large plugs (Stevenson 1944: opp. p. 8).

Indo-Pacific beads, also called *mutisalah* (Francis 2002:19; Lamb 1965a, 1965b) and "trade wind beads" (Sleen 1958:208-212; 1966:244), are small, monochrome, drawn glass beads first made in Arikamedu and Karaikadu in South India by a unique method developed around 200 B.C. The glass was drawn hot from a furnace into a long tube by the *lada* technique and then cut into sections which were then heat rounded. Production later spread to Mantai in Sri Lanka, Oc Eo in Vietnam, Klong Thom in Thailand, and Kuala Selinsing in Malaysia. The beads were made of an opaque glass in a limited range of colors (reddish brown, orange, yellow, green, black) and in semi-translucent green, blue, amber yellow, and violet. The glass is generally of poor quality, with streaks, bubbles, and other impurities. Indo-Pacific beads are found in large quantities at archaeological sites that span nearly two thousand years and stretch – to quote bead historian Peter Francis, Jr. – "from Ghana to China, Mali to Bali, and South Africa to South Korea" (Francis 2002:19-84). They are undoubtedly the most widespread trade bead of all time.

Once the drawn glass tube was chopped into segments, the rough Indo-Pacific beads were heat rounded. This involved putting them in a metal container with charcoal and ash which was heated over a hot fire or in a cooler furnace. The beads were then agitated, probably with a shovel-like instrument. The heat and agitation gradually rounded the sharp and uneven edges. The longer the beads were subjected to this process, the greater their "roundness" (Francis 2002:25). The *khaji* of the Kachin are distinctive in that the heat-rounding process was relatively short, resulting in somewhat irregularly shaped beads which range from standard cylinders to cylinder discs (Beck 1928: Pls. II-III).

Because the Kachin grade their *khaji* beads by size, a string resembles an irregularly segmented tube of varying diameter. Another distinctive feature of *khaji* is their size. Indo-Pacific beads are rarely more than 5 mm diameter. Beads of the *khaji* type are found up to 10 mm and more in diameter (Pls. IB-IC). For the Kachin, the larger the bead, the greater its value. In Myitkyina today a necklace of *khaji* cannot be acquired for less than US$150, a vast sum in Burma. When in need of money, villagers sell one bead at a time.

In Myitkyina, information about the origins of *khaji* beads was limited, and a field trip to villages to the north of Kachin State was arranged. This region, stretching north to the border of Tibet, remains one of the least touched and most remote in the world (Kingdom-Ward 1921, 1937, 1949; Rabinowitz 2001). Access by foreigners is restricted by the present Burmese government. Apart from a few miles of paved road in the immediate surroundings of Putao (known as Fort Hertz in British-colonial times), field trips must be made on foot (Fig. 3).

In the small villages scattered around Putao, many households own a string of precious *khaji*, also known as *shawana*, meaning "heirloom" in the Rawang language.[3] Informants in Putao and the neighboring villages of Machanbaw, Langtao, and Namkhan recount a variety of myths about the origins of *khaji*. Many claim that they are made from "a naturally occurring extrusion or tube found underground and already pierced for threading." Others claim they are sometimes found beneath "mounds in the ground as if made by burrowing insects," from which the beads can be retrieved by sticking a fine rod of bamboo into the mound which pierces the *khajis'* naturally made hole. *Khaji* are also said to be found occasionally in the stomachs

Figure 3. Carrying wood in the Putao area, Kachin State, Upper Burma, one of the most remote regions in the world. Apart from a few paved roads in the immediate vicinity of Putao, journeys must be made on foot (photo by author).

of jungle fowl. In former times, anyone wanting to find *khaji* had to make an offering to the *nats* (animist spirits), but since the Kachin became Christians as a result of missionary activity in the 19th and early 20th centuries, *khaji* are now rarely found.

The village of Gong Lu or Gon Lu (Hill People Mound or Tall People Mound), some 95 km (60 mi.) west of Putao in Machanbaw Township, was often mentioned as a site where *khaji* beads had been found. This very remote and, even today, inaccessible village is in eastern Kachin State towards the Chinese border, on what the Rawang claim to be their ancient migration route into Burma. The ruins of an ancient Rawang village are said to be found near Gong Lu, with evidence of the smelting of local iron ore. Two miles from Gong Lu, near the Gitkat River,[4] is said to be a mountain called Galumkhi Bum which is shaped like one rock on top of another. This distinctively shaped mountain was mentioned by informants in several villages, each time with a different name: *Bum Pang* (Root Mountain), *Khinze Magaung* (Two Stone Mountain), and *Galumkhi Bum* (Red Stone Mountain); also *Shet Bum Magun*.

Khaji are also said to have been found in the last thirty years at villages nearer the Chinese border and at a village called Namtumku near the Assam border, but these beads "were brown, and not the true natural product." All of these reports appear to confirm that *khaji* came from ancient graves.

Informants also reported that the Naga – whose homeland adjoins that of the Kachin to the west and spans the Assam/Burma border – were said to have found *khaji* near a mountain called Leik Taung (Bead Mountain) near Shinbuyang in the Hukawng Valley. A reference from British- colonial times also mentions *khaji* in connection with the Naga. Carrapiett reported that prior to the First World War, cheap glass imitations of "*kagyi* stones from Germany" were worn by the Kachin, "although acknowledged as worthless substitutes" (Fig. 4; Pls. ID, IIA). These were said to be brought to the Sinlum Hills annually and traded to the Kachin by Naga tribesmen (Carrapiett 1929:16, 18). Why would 20th-century imitation *khaji* beads from Germany be available in the Naga Hills? Did the Naga also value *khaji*?

Figure 4. *Khaji* are still worn at Kachin festivals with cheap imitations being utilized by young girls. Langtao village, southeast of Putao, Kachin State, Burma (photo by author).

THE *DEO MONI* BEADS OF THE NAGA

In many Naga necklaces seen in collections today, cylindrical orange-glass beads of various types and sizes predominate (Pl. IIB, top; cf. Pl. IIB, bottom). These beads are not ancient and must have been traded into Nagaland in more recent centuries from Europe, or perhaps earlier from India or China, but their resemblance to *khaji*/Indo-Pacific beads is remarkable (Pl. IIC). Are ancient Indo-Pacific beads found in Naga heirloom necklaces? Are the *khaji* of the Kachin the *deo moni* heirloom beads of the Naga?

Like the Kachin, the Naga are a Mongoloid people who migrated over millennia from north or northeast China into Southeast Asia. Little is known of the Naga's early history, but their arrival in Southeast Asia appears to predate that of the Kachin. The Greek geographer Ptolemy mentioned the Naga around A.D. 150, their name thought to derive from *nanga*, meaning "naked" in Sanskrit (Johnstone 1896:5). In the steep jungle-clad hills and gorges lying between the Brahmaputra Valley and the Chindwin Valley in Burma, various Naga groups immigrated, coalesced, or were absorbed by others. This remote and inhospitable region with its infrequent passes formed a forbidding physical barrier between Assam, Burma, and China (Beal 1884:198).[5] This isolated the Naga and sequestered tribe from tribe, reinforcing their introversion and resulting in a highly distinctive culture. Head-hunting and a warlike reputation further limited external contact until the beginning of the British-colonial period in the 1840s. The Naga were, however, never totally isolated. The groups nearest the plains maintained limited trading contacts with the peoples of the Brahmaputra Valley where the great kingdoms of the Kacharis, Koch, and Ahoms were centered. To the east, trade was also maintained with the peoples living in the Chindwin Valley. The Naga exchanged wild cotton, ivory, and ginger for salt, metals, shells, and beads, for no other tribe valued and wore ornaments in such profusion as the Naga (Fig. 5).

From the start, British-colonial administrators were struck by the creativity of Naga jewellery. Made from bone,

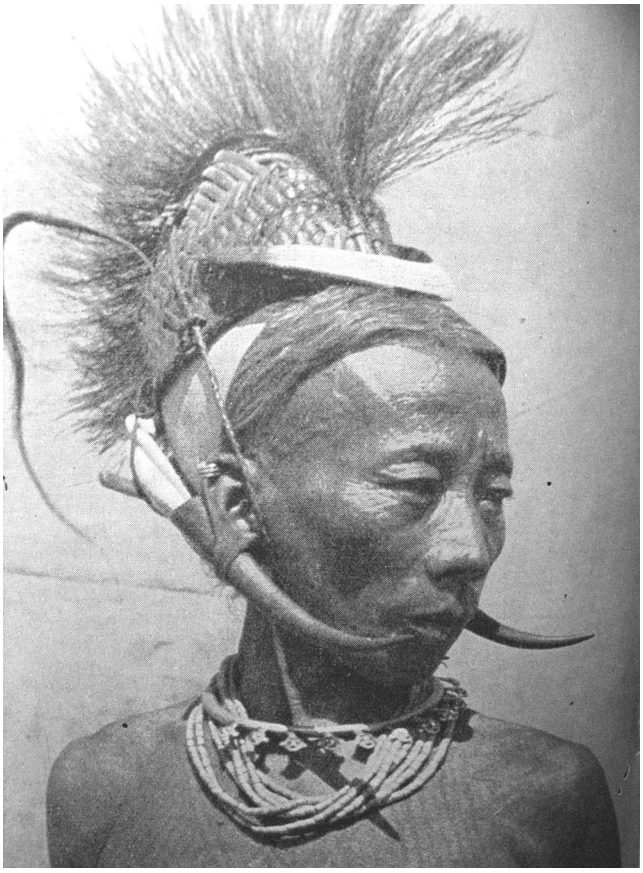

Figure 5. A Naga chief wearing a brass head-hunter's torque. Each of the eleven or so pendant "heads" indicates a head taken. He also wears what may be a *deo moni* necklace (Stevenson 1944: opp. p. 1).

tusk and horn, feathers, shell, glass, carnelian, wood, brass, and seeds, each Naga group assembled ornaments from these materials in a unique way to declare tribal identity, status, wealth, and head-hunting prowess. Of all Naga ornaments, the British observed that beads known as *deo moni* [6] (also referred to as *deo mani*, *deo monnees*, "god beads," and "spirit stones") were the most highly prized, but like *khaji* beads, their origin remained obscure.

Despite the many books on Naga culture which have appeared over the last thirty years (Ao and Liu 2003; Jacobs et al 1990; Stirn and Van Ham 2003; Untracht 1997), much confusion has remained over the identification of *deo moni*. In the glossary of Macfarlane's Cambridge University online Naga Database, *deo moni* are described as "a variety of bead from a reddish-brown stone flecked with black, much valued, 'god-bead'" (Macfarlane 1985-1992). Macfarlane (2009: pers. comm.) was unable to identify for the author photographs of *deo moni* in his co-authored and well-illustrated book *The Nagas* (Jacobs et al. 1990).

Deo moni are also not illustrated in Untracht's *Traditional Jewellery of India*, but are described as "made of glass although they resemble stone. As the Nagas possessed no glass-making technology, these beads must be foreign.… They were probably imported in the unremembered past from an origin outside Nagaland" (Untracht1997:68). Ao and Liu (2003) also refer to *deo moni*. The beads are not illustrated and their origin is described as "maybe Nepal or unknown sources."

Bead historian Jamey Allen attributes *deo moni* to the 19th century, describing them as:

> ... drawn brick-red glass beads, probably from Venice (but also possibly Indian). Because of their color and structure they look like jasper and have a structure that looks like segments of a tubular construction…. Ethnographers who were not familiar with the movement of trade beads, and thought these might be local beads… speculated that the material was a fossil.… But they are just glass trade beads (J.D. Allen 2008: pers. comm.).

Kanungo (2006, 2007) makes no mention of *deo moni* when discussing Naga beads, but does refer to Indo-Pacific beads as having been "traded by sea from the southeast Indian coast." He, however, appears to use "Indo-Pacific beads" as a generic term for the many green, red, and yellow beads worn by the Naga today (Kanungo 2007:5) and doesn't seem to differentiate between ancient orange Indo-Pacific beads of the standard-cylinder/cylinder-disc *deo moni* type (which ceased being made by A.D. 300) and the many, more recent, beads which are found in Naga necklaces today. These include small drawn glass "seed" beads and other larger drawn glass beads, furnace- or lamp-wound beads, and machine-molded "tile" beads made by the Prosser method in Bohemia and France in the 19th century (Jacobs et al. 1990:308-321).

In British-colonial times, at least three references specifically link *deo moni* to the Kachin (Singpho) rather than to the Naga. Edward Dalton (1872:11) – later seemingly quoted by Hunter (1879:316) – reported of the Singpho: "They are fond of a particular enamelled bead called deo-mani."[7] In referring to *deo moni* as "enamelled," Dalton and Hunter may have been quoting H. Piddington, Curator of the Museum of Economic Geology, Calcutta. In 1847, Piddington had been sent samples of *deo moni* beads by a Captain Smith. Smith's letter and Piddington's subsequent chemical analysis were published in the *Journal of the Asiatic Society of Bengal* (Piddington 1847:713). Captain Smith wrote:

> I send you some of the Deo Monnees so prized by the Singphos and without a string of them a wife is not

> to be had. I send small ones, as I should have to pay 5 Rs. for a large size *one*; those similar in grain to the *Ash* wood and irregularly bored are most prized, they should be of both the colours I send; they are valued most because they are supposed to be the real Deo Monnee, and are said to be found ready bored. Those that are particularly smooth outside, and regularly bored are not so valued,[8] as they are thought to be the work of man's hands, whereas the others are by the gods themselves.

Piddington replied:

> These singular objects of veneration… are small flat circular disks, about from one to 1 $^{1}/_{2}$ eighth of an inch thick and from one to two eights in diameter, with holes in the middle or towards it. The colours are from a dirty greenish yellow to a bright sealing wax red; some are yellowish and marbled with the red color in veins like Jasper, but the red ones are not marbled with yellow. These disks at first sight are like sections of the jasperized stems of gramineous plants, or small pithy wood, and at the edges some of them (the yellow more than the red) appear marked with stroe exactly like part of a small petrified twig. When polished however no traces of vessels can be discerned on the transverse section of either the green or the red ones by a magnifier.

Piddington subjected the beads to a number of chemical tests and concluded:

> The filtered solution [of the beads] gave traces of Iron, and faintly but distinctly of Copper… [the beads are made of] an enamel, in which the oxides of copper are frequently used as the red colouring matters; and it is not difficult to suppose that the Singphos obtain these, fabricated to imitate Jaspers of these colors, through tribes in intercourse with the Chinese of Yunnan.

Some eighty years later, Piddington's report was quoted by Mills (1926) in his book, *The Ao Nagas*. Unfortunately, Mills does little to unravel the mystery of *deo moni*:

> The curious brown beads known in Naga-Assamese as "deo-moni".... No one knows what they are made of and the Aos[9] as in the case of many of their ornaments, state vaguely that they came from Maibong, the last capital of the Kacharis (Mills1926:49).

In a footnote by J.H. Hutton, Dr. O. Hanson describes the Kachin "as wearing what are apparently 'deo moni' and says they are made of petrified wood" (Hanson 1914:48; Mills 1926:48).[10] Hutton goes on to say: "The few that still find their way into the Naga Hills are imported from Nepal" (Mills 1926:49).[11]

Significantly Mills (1926:48) does add that *deo moni* were said to be "found ready bored in graves" echoing the myths of the Kachin. Bower (1950:111–112, 114), who lived among the Naga in the 1930s, confirms that this belief was persistent and recounts the following:

> All through the Barail area, tucked away behind ridges, on precipitous spurs, at the heads of hidden ravines, were the lost villages of a vanished people. The Zemi (Naga) said they were the relics of the jungle-folk, the Siemi, who had preceded them in the occupation of the country. Tradition had it that the Kacharis had wiped them out; certainly the sites were, one and all, in places easily concealed and easily defensible, and most of them had... double or triple ditches, banks, and even complicated defences, and walls of dry stone[12].... Small settlements, recognizable by their house-platforms, which, sometimes stone-faced, cropped out on otherwise smooth hillsides, were legion. But some of the larger sites were of more interest. There was one in the Jiri Valley.... On this, beside some denuded house-sites and a peculiar type of bamboo, the *gareo*, associated, for reasons never fathomed, with most of these remains, were two large slabs, apparently gravestones, of which the smaller bore several engraved designs. Some were probably phallic. The others were the curious outlines of bare feet. The large stone had been tilted up by a tree which grew, a good yard thick, almost from under it. A man could crawl by now into the vacuity below, and men had, if report were true, for legend said that from this hole the "Nagas of old" had fished out some of the old, dull-golden-yellow *deo-moni* beads, which were to them of such immense value; beads of unknown origin, which looked like stone, and were, so unexpectedly, of primitive glass; beads which were in themselves a major mystery. Every Zemi [Naga] of consequence wore a string of them. They were heirlooms, handed down from father to son, and a good string might, at a conservative estimate, cost Rs 200/-.... The Zemi believe that the Siemi made the beads, and that a bamboo container of them – a fortune at present-day rates – had been buried as part of every Siemi's grave-furniture.... For this reason, they hold, the Siemi concealed their graves. Being great magicians, the [Siemi] either split rocks, placed their dead inside, and then sealed them up again; or by means of incantation they caused great stones to fly from a distance and pile

up over the grave, so that its exact position could not be found….

The Siemi were, it is said, an uncanny race – magicians, 'small and dark'. They lived in the forested hills; and, by a secret process involving the use of fire, made precious *deo-moni*, the 'spirit-beads,' from slender, carefully-cultivated *gareo* bamboo. One day, when the Siemi of a village near the present Guilong were making beads, the smoke of their fires poured up in such volume, a smoky haze, that it was seen by the Kacharis in Maibong below. The King, his curiosity roused, sent men into the unknown hills to find out what was burning. When they came back with a group of captured Siemi, the King demanded who and what they were. They answered that they were a jungle-people; that they did not live by digging or cultivation, but that they made, and traded the yellow beads, and from these derived a living. At this, the King insisted that they tell him the process. The Siemi refused (Bower 1950:111-112).

As we have seen, when the Mongoloid peoples of which the Naga form a part began to spread south into Southeast Asia, they supplanted earlier Australoid or Negrito populations. The influence of these early aboriginal populations is seen today in certain aspects of Naga culture – in their tools, stone monuments, forked wooden posts, and occasional dark skin or frizzy hair (Bower 1950:114). Cultures with these traits – found among the Naga as well as in other cultures throughout island Southeast Asia – erected stone monoliths to commemorate their dead. In both South India and Southeast Asia, Indo-Pacific beads have been found in their graves.

It was Beck, expert on ancient beads and father of modern bead study, who was the first to become aware of the widespread occurrence of Indo-Pacific beads in archaeological sites. In the early 1930s, while assessing material recently excavated at Kuala Selinsing in Malaysia, he remarked on the "unmistakable" likeness of the small glass beads found there to beads found in sites at Pemba, Zimbabwe, Zanzibar, the Philippines, Korea, and in megalithic graves in South India and added that "the bright orange cylindrical beads so much prized by the natives in South India are found here [in Kuala Selinsing] in considerable numbers" (Beck 1930:166-182; Francis 2002:19; Mills 1937:330). It is interesting to note that Beck seems to refer here specifically to "cylindrical" Indo-Pacific beads of *deo moni/khaji* type. It would appear that these beads were also regarded as heirlooms by certain tribes in South India.

Shortly after writing the above, Beck received some *deo moni* beads for identification, possibly from Mills.[13] Beck's response (Mills 1937:330) provides final confirmation that *deo moni* can be positively identified as Indo-Pacific beads. Likening *deo moni*, as he had Indo-Pacific beads from Kuala Selinsing, to ancient Saxon glass, Beck (1930:166-182) reported: "Ancient glass beads, which seem to be very similar, are also found [in graves] in South Sumatra....[14] There, too, they are searched for in river-beds." Today on the Indonesian islands of Timor, Flores, Sumba, and elsewhere, orange Indo-Pacific beads (of a more rounded shape than *deo moni*) are also regarded as heirlooms and are known collectively as *mutisalah* or "false pearls" (Adhyatman and Arafin 1993:6; Allen et al. 1998:135; Francis 1994:95). In Timor they are known as *pusaka* meaning "heirloom" (I.T. Glover 2009: pers. comm.) (*see* cover).

To confirm Beck's identification of *deo moni* as Indo-Pacific beads, the author contacted Harry Neufeld who, with his Ao Naga wife Tiala, owns one of the largest collections of Naga jewellery. Neufeld was not familiar with *deo moni* and was unable to identify any in his collection. Naga dialects are often mutually unintelligible, however, and Neufeld's Naga niece Ayinla Shilu Ao (2009: pers. comm.) suggested that heirloom beads known to the Ao Nagas as *nupti* might be *deo moni*. Neufeld confirmed that *nupti* are opaque orange beads, the oldest and most prized of Naga heirloom beads. Three necklaces in the Neufelds' collection incorporating *nupti* beads subsequently confirmed beyond any doubt that *nupti* are *deo moni*. Neufeld had believed that *nupti* were traded to the Naga by the Dutch (Neufeld 2009: pers. comm.). Mills confirms that "the curious brown beads known as 'deo moni'" had several names, known by various Naga tribes as *reptong techir* ("the mother of reptong beads"), *puram* (Mills 1926:49), *tutsera*, *avuwang*, *khongpsu*, and *atsongko* (Mills 1937:32, 35). Neufeld (2009: pers. comm.) reported that today Naga necklaces containing *deo moni/nupti* beads are very rare, accounting for less than one per cent of the many orange glass beads found in Naga necklaces. He added that *nupti/deo moni* are sometimes found in Konyak Naga chokers or in bib necklaces combined with chank shell and carnelian beads (Pl. IID), but are most often seen in multi-strand necklaces called *Wakching mala*[15] (Pls. IIIA; IIIB, top). According to Neufeld, *deo moni/nupti* are particularly associated with the Konyak Naga, but in the only three photos which the author has managed to locate from the British-colonial period which are credited as showing *deo moni* beads, necklaces of large *deo moni* seem to be worn by boys from the Sema and Eastern Rengma Nagas (Figs. 6-7). Bower (1950:194) reported that Zemi Naga men wore simple strands of *deo moni* throughout their lives, removing them only when preparing for death (Fig. 8). Mills (1937:32) also mentions *deo moni* being worn by the Rengma Nagas. Reporting on the Koupooee Naga tribe of Manipur to the south of Nagaland, McCulloch (1959:52) noted:

Figure 6. The sons of a Sema Naga Chief. The boy on the left wears a double string of precious ancient beads (*deo moni*). Sheyepu (Shehepur) village (photo: J.P. Mills; courtesy of School of Oriental and African Studies, London).

> In their festivals, the men wear their peculiar ornaments of which the most prized are necklaces of a red pebble. A single stone of this sort is sometimes valued at five methins (mithuns), but such stones are usually heir looms and are sacredly preserved.

It seems possible that the red pebbles referred to were *deo moni*. It would seem therefore that the use of *deo moni* among the various Naga tribes was far more widespread than previously thought.

According to Neufeld (2009: pers. comm.), *Wakching mala* are often, but not exclusively, associated with the Konyak village of Wakching in the Mon district of the Naga Hills. Throughout the plains, trade into the hills was dominated by the tribes or sub-tribes living in villages at the foot of the passes leading to the hills, which were part of a vast network of trade routes. By the 19th century, Wakching had for a long time been the center of Naga trading. Known by its earlier name, Jaktoong, it was one of the Naga villages sited on the passes leading to the Naga Hills. This gave the Konyak an intermediary role both in terms of trade and in protecting the plains population from raiding by the interior tribes (Jacobs et al. 1990:21). It also gave them privileged access to plains goods. This suggests that the Konyak Naga, or more probably the ancient inhabitants who preceded them, had privileged access to *deo moni* because they were traded from the plains from a source outside the Naga Hills.

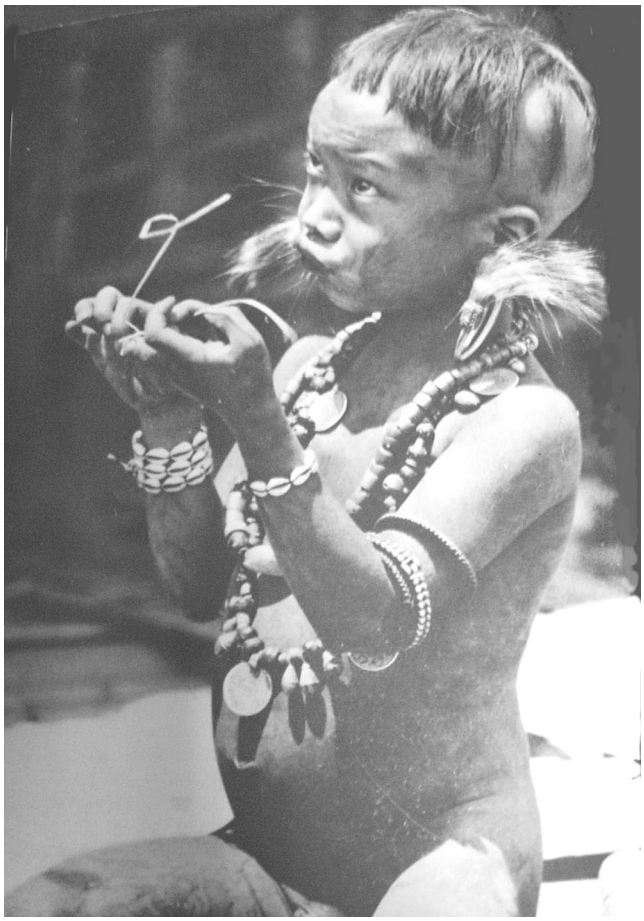

Figure 7. A young Naga boy wearing a necklace of "yellow 'spirit' stones" (Fürer-Haimendorf 1939: Pl. 6; courtesy of School of Oriental and African Studies, London; 94/JPM/JPM).

Chemical analyses by Dussubieux and Gratuze (2000) show that drawn, orange Indo-Pacific beads are of two chemical types. The rounder, smaller beads belong to the m-Na-Al glass group, with a probable Sri Lankan or South Indian origin. The cylinder disc *deo moni/khaji/nupti* type have no dominant oxides and a very specific mixed composition of around 10% copper, a mixed alkali flux, and alumina sand. The origin of Indo-Pacific glass beads of this chemical type is uncertain because they are not found in high concentrations in any particular region (Dussubieux 2008: pers. comm.). Similar beads have been found in Cambodia at Phum Snay in contexts dating from the 2nd century B.C. to the 2nd century A.D., but they are quite common in South

Figure 8. Namkia, Ursula Graham Bower's Zemi Naga guide and translator, wearing necklaces of *deo moni* beads (Bower 1950: Pl. XX; courtesy of Alison Betts and Catriona Child).

India and Sri Lanka, in contexts of 300 B.C.-A.D. 300 (Gratuze 2008: pers. comm.).

Glover proposes Karaikadu in South India as the source of Indo-Pacific beads of the *deo moni/ khaji* type (Glover 2008: pers. comm.). Karaikadu and nearby Arikamedu (Poduke of the *Periplus*), south of Chennai (Madras), were occupied in the last few centuries B.C. (Francis 2002:30) and were stone- and Indo-Pacific-beadmaking sites.[16] The area surrounding these sites was rich in minerals: rock crystal, amethyst, beryl, garnet, diamonds, corundum, carnelian, and agate as well as the raw materials to make glass (Francis 2002:116). Arikamedu had trading contacts with the Mediterranean world, importing pottery and glassware (Francis 2002:114-115)[17] and exporting gems and beads both west to the Mediterranean and east to Southeast Asia. Indeed, Indo-Pacific and stone and glass collar beads were traded eastwards as far as Java, Bali, Vietnam, South China, Korea, and Japan.

New ideas as well as goods traveled along these routes. From early times, Buddhist pilgrims visited sacred Buddhist sites, many sent by Ashoka, king of the Mauryan Empire in the 2nd century B.C. (Fig. 9). To quote Glover (2008:4):

> This westerly trade from South to Southeast Asia during the period from about 400 B.C.-A.D. 500 was not a mere "trickle of trade," nor can it be described simply as the "drift" of a few exotic and precious items to the east from India; rather it operated on a considerable scale at pan-regional, regional, and local levels, it was developed as a commercial enterprise by Indian and perhaps other Asian merchants, and there is little doubt that Southeast Asian sailors and traders were also active in the exchanges.

It is not clear who was responsible for making the drawn Indo-Pacific beads at either Karaikadu or Arikamedu. Francis suggests it was the Tamils, a Dravidian people who were inhabitants of the region, or the Pandukal, who expanded through the central regions of southern India in the first millennium B.C. The Pandukal, like the Naga and the *Siemi*, are associated with megaliths. The earliest Pandukal sites are found in India's central "tribal belt" and range from the middle to late second millennium B.C. Pandukal sites are also found further north in central India at Vidarbha, Mahurjhari, where hardstone beads were made. Indo-Pacific beads are found in Pandukal graves in South

Figure 9. Kaung Mulon pagoda (also known as Maungmulon), overlooking the Mali Kha River, 10 km north of Putao, northern Kachin State, Burma. This is one of Burma's three most sacred sites, said by local tradition to have been built 2,000 years ago by King Ashoka. It was one of the last settlements of the Shan (photo by author).

India, as well as Pandukal stone beads. The Pandukal people introduced ironworking to South India, and ironsmithing and glassworking often paralleled each other. Young Pandukal men are likely to have furnished at least the colorants for glassmaking, along with the stones for lapidary work (Francis 2002:113-118).

DEO MONI/KHAJI "COARSE CORE" BEADS

Close inspection of the *deo moni/khaji* necklaces studied by the author reveals that they sometimes contain two other types of orange glass beads which are superficially very similar to the drawn Indo-Pacific beads discussed above. The first is a smoother, more uniform orange-brown glass bead (Pl. IIIB, bottom) which has none of the streaks, bubbles, or impurities associated with drawn Indo-Pacific beads. The age and origin of these brown beads is not clear. The second type has a distinct core of dark red or brown glass, covered with a thin external layer of orange glass (Pl. IIIC, top) very similar in appearance to the glass from which the drawn Indo-Pacific *deo moni/khaji* beads were made. This thin external layer, under magnification, has the same streaks parallel to the perforation as the drawn Indo-Pacific beads. Magnification of the core reveals a mixture of at least two colors of imperfectly fused glass, producing a scrolled or marbled effect which encircles the perforation. Beads of this "coarse core" type are reputed to have been found quite widely at sites of coastal East India and Southeast Asia, and are thought to have been made somewhere in India and having some antiquity, as with the *deo moni/khaji* drawn beads.

One type of "core bead" made of orange glass with a black core has been found at Ta Rua-Nang Yon, an early but undated coastal site in Krabi province, southern Thailand (Pongpanich 2008:42, 66, 67). The "coarse core" technique was also used to make Jatim beads, thought to have been made in East Java from as early as A.D. 300 to A.D. 900 (Adhyatman and Arifin 1993:63; Francis 2002:134, 135). A cross-sectional cut through a Jatim bead (Adhyatman and Arifin 1993:56) reveals a circular marbling of the poorly fused glass colors similar to that found in the cores of the much smaller *deo moni/khaji* core beads. Drawn tubular beads, both with and without a core, often have swirls around the perforation. This is because when the initial glass gather is removed from the furnace, the pontil has to be turned both to gather glass onto it, and subsequently to keep the glass from sagging or falling off. Low quality, poorly-mixed glass was frequently used for the base gather of "coarse-core" beads to save time, effort, and money. The better-quality glass was then marvered onto the surface of the base gather so the finished beads would have a better color and appearance (Karklins 2009: pers. comm.).

Perhaps, as suggested for Jatim beads (Adhyatman and Arifin 2008:65; Munan 2005:28), the *deo moni/khaji* core beads had a base of locally made or recycled glass while the more brightly colored orange glass forming the outer layer was imported, perhaps – in the case of the *deo moni/khaji* beads – from workshops where the *deo moni/khaji* beads without a core were made. Unlike the simpler *deo moni/khaji* drawn beads, the coarse-core beads are compound beads made with a more complex two-stage method of production. Although perhaps contemporary with each other, it seems more likely that the coarse-core beads were made to imitate the simpler drawn beads, rather than the other way round.

Much more fieldwork is required to establish whether the three types of *deo moni/khaji* (the regular type, the plain brown type, and the coarse-core type) are equally valued as heirloom beads by the Kachin and Naga. Francis (2002:186, 191-192) points out that on some eastern islands of Indonesia, *mutisalah* (literally "false pearl"; *see* cover) is merely a general term used for three different types of small heirloom beads of reddish-brown to brownish-orange glass. All three types are rounded irregular oblates rather than the cylinder disc form of *deo moni/khaji*. The most numerous *mutisalah* are opaque red and called *mutitanah* (*tanah* means earth) in reference to their color. They are worn by the commoners. There is a second more valuable type, the orange *mutibata*, derived from *bata* meaning brick, again because of their color. These two are both drawn Indo-Pacific beads, probably products of the Srivijaya branch of the Indo-Pacific bead industry, and they are at least 800 years old. The elite, however, value a *mutisalah* known as *mutiraja* (*raja* means king). These are not drawn Indo-Pacific beads but wound "coil" beads made by the Chinese. The earliest date for these beads is the 9th to 10th centuries, but the Chinese only began active trade throughout island Southeast Asia at the beginning of the 11th century. Although they are older, *mutitanah* are more plentiful and a strand can be purchased for a few dollars. *Mutiraja*, because of their lead content and the way they were made, are heavier, more glossy, and much more rare, and despite being more recent, they were adopted by the elite. In the early 1990s, a strand was worth a water buffalo – at least US $200-$250. By A.D. 1200, Chinese coil beads had become the dominant beads in Southeast Asia replacing Indo-Pacific drawn beads. In some eastern islands of Indonesia today, both Indo-Pacific and Chinese coil beads play the same role in necklaces and even in beadwork (Hector 1995:10-11). As with *deo moni/khaji*, they are so similar in color and size that it is easy to confuse them (Adhyatman and Arifin 1993:82).

HOW DID *DEO MONI/KHAJI* REACH THE NAGA AND KACHIN?

Glover (2009: pers. comm.) and Dussubieux and Gratuze (2009: pers. comm.) suggest a date of ca. 300 B.C. to ca. A.D. 300 for the drawn, cylinder-disc, Indo-Pacific beads worn by the Kachin and Naga, with an origin in Southeast India. How did these beads reach the Naga in the North Cachar Hills and the Kachin in Burma's far north? The monsoon trade winds which ferried ancient boats from Southeast India direct to Southeast Asia and back were little understood before the first century A.D. Earlier trading vessels heading to Southeast Asia are said to have tracked along the coast of the Bay of Bengal, stopping along the way to trade and obtain supplies (Francis 2002:118). This would suggest that Bengal was involved in this maritime trade from a very early date.

As we have seen, Pragjyotisha, the kingdom which rose in northern Assam in the first millennium B.C., was occupied by *Kiratas* and *Cinas*, "golden-skinned" peoples thought to be of Indo-Tibetan origin (Lahiri 1991:10, 11). The ancient Indian epics, the *Ramayana* and *Mahabharata*, indicate that the territory of ancient Pragjyotisha stretched "as far as the sea." This sea was called *Lohitya Sagara* (estuary of the Lauhitya), the ancient name of the Brahmaputra. Badadur (1933:1, 5, 7) suggests that at this time the still very low-lying and water-logged region south of the Khasi/Jaintia Hills around Sylhet (now part of Bangladesh) formed a "sea" which united the deltas of the Brahmaputra and the Ganges. Small rivers and streams in this marshy area could have provided the Siemi – in whose graves the Naga found Indo-Pacific beads – with access to the ancient trading ports on the Bay of Bengal.

The author of the *Periplus*, a Greek account of the lst century A.D., refers to an important port called *Ganges*, possibly a port known as *Tamralipti* in the Ganges delta (Badadur 1933:188). *Tamralipti* was one of India's five major ports of the period, the others being *Barbaricum* in the Indus delta, *Barygaza* on the Gujarat coast, *Muziris* on the Kerala coast, and Arikamedu on the Coromandel coast (Casson 1989:21-27). We learn that from the port of *Ganges*, merchandise from the whole of Eastern India – malabathrum, Gangetic spikenard, pearls, muslins, ivory, silk cloth, transparent stones, diamonds, and sapphires – was despatched by sea to Arikamedu, from where it was traded east to Southeast Asia and China, and west to Arabia, the Levant, and the Mediterranean world (Gupta 1991:283). Inland, trade routes from the port of *Ganges* followed the Ganges and Brahmaputra rivers and their various navigable tributaries, connecting with land routes east to China via Yunnan, west to India through Taxila, Bactria, and beyond, and north to Bhutan and Tibet.

This is confirmed by the *She ji* (*Records of the Grand Historian*) written by Sima Qian (145-ca. 86 B.C.) which relates how Shang Qian, the famous diplomat-cum-explorer of the Former Han dynasty (206 B.C.-A.D. 220) visited "Daxia" (Bactria) and saw Sichuan goods which he speculated must have been traded from Sichuan via Yunnan, Kachin State in Burma's far north, Assam, and "Yuandu" (India) (Sun 1997:9).

As Indo-Pacific beads of the cylinder-disc *deo moni* type have not been recorded in early sites in the south of Burma or Thailand, it seems likely that they would have arrived by sea from South India at the ancient ports to the north of the Bay of Bengal. The graves where the Naga and Kachin have found their *deo moni/khaji* suggest that these beads were subsequently traded north overland to the North Cachar Hills, then northeast along the ancient China/India trade route into Burma through the Hukawng Valley into northern Kachin State.

Which of the goods traded from the ancient ports of the Bay of Bengal were locally produced and could have been exchanged for Indo-Pacific beads? Ptolemy states that *Kirrhadia*, the country of the *Kiratas*, produced the best malabathrum, a fragrant oil indigenous to Sylhet and northern Assam and much valued in Greece and Rome. Silk and ivory were also locally available (Gupta 1991:283, 286). These valuable goods suggest that the ancient ports of the Bay of Bengal may not have lost their importance once the direct route to Southeast Asia, using the monsoon winds, had been discovered.

IVORY, CARNELIAN, COWRIES, SHANK SHELL, AND CRYSTAL

Untracht (1997:53) suggests that because the archaic culture of remote tribes such as the Naga persisted into the 20th century, the ornaments they wear today – particularly those regarded as heirlooms – could reflect ornaments worn by them (or those who preceded them) in ancient times. This would appear to be true in the case of Indo-Pacific beads. What other goods formed part of this ancient trade?

In ancient times, ivory was traded from the port of *Ganges*. Shang Qian, the diplomat-explorer, reported that in *Shen-Tu* (Northeast India) "the people ride on elephants to fight in battle" (Lahiri 1991:12). On his visit to Kamarupa in the 7th century, the Chinese pilgrim Yuan Chwang commented on the large herds of wild elephants which roamed the country in the southeast (Watters 1905:186). Indian elephants (*Elephas indicus*) are also found in Orissa, Andhra Pradesh, and Karnataka but because those found in Assam in the Garo Hills are of immense size and have

tusks of superior quality, their ivory was considered to be the best in India. This must have created a lucrative trade for Assam in early times. An elephant's tusk is solid for about half its length, the larger root section containing a tapered nerve cavity. The rings which result when the root section of the tusk is sliced must have suggested use as bangles. Hunting elephants was very dangerous (Carey 1919:211) and ornaments and armlets of costly ivory were among the most highly valued by the Naga. Only warriors were entitled to wear them. Ivory earplugs were also worn by some Naga groups (Jacobs et al. 1990:39; Untracht 1997:60, 117, 178).

Because of Hindu restrictions on the taking of life, much of the ivory from Indian elephants came from dead individuals or was cut from domesticated animals, but before the 20th century, the ivory used by the Naga was acquired by hunting. Large pitfalls were dug, the opening disguised with thin branches and leaves covered with a layer of earth. Stout, sharpened sections of bamboo known as *panjies* were stuck in the bottom and injured the elephant when it fell in (Hutton 1921b:86). Before British-colonial rule, Naga chiefs would come down to the plains and offer tribute to the Ahom rulers in the form of slaves, spear shafts, cotton, and "elephant teeth" (Brodie 1873). At the start of the 20th century, however, the use of guns increased the number of elephants being killed; four thousand were killed in the Garo Hills in fifteen years (Carey 1919:211). With the large herds depleted, the Angami Naga bought imported African ivory from plains traders, or from Calcutta or Varanasi.

Dubin (1987:183) suggests (without naming sources) that the trade in carnelian, shells, and glass beads from India into Nagaland began in the 17th century, but it would appear that this trade began much earlier. From very early times, carnelian beads were traded from Arikamedu in Southeast India, as well as from the ancient hardstone beadmaking center in Cambay, Gujarat State, on India's northwest coast. Beadmaking in Cambay has a history dating back more than five thousand years and its trade in carnelian and agate was more extensive than that of Southeast India (Untracht 1997:74). The trade in etched beads from India to Southeast Asia and beyond may go back well into the first millennium B.C., the earliest trading vessels tracking along the Bay of Bengal. Unetched beads of carnelian and agate may have been traded too, but unlike etched beads whose distinctive designs give some indication of their source (Beck 1933: Pl. LXXI), the origin and age of plain carnelian and agate beads is more difficult to establish.

From 19th- and early 20th-century British-colonial sources and ethnographic collections, it is clear that carnelian beads were worn and regarded as heirlooms by a large number of the tribes living in Burma and British-colonial Assam. The Apa Tanis, Kachin, Mishmis (Dalton 1872:17, 20), Miris (Dalton 1872:32), Lushais, Soktes, Siyins, Tachons, Hakas, Mizos, Garos, Nishi, and Lyngngam, as well as the Naga, Kachin, and Chin (Carey and Tuck 1895:172), all wore carnelian beads of various shapes and sizes. This must have created a highly lucrative market. Cambay manufacturer-dealers of the 19th century regularly sent representatives with samples and supplies of finished carnelian beads to plains towns such as Dimapur and North Lakhimpur to the west of the Naga Hills, as well as to the port of Chittagong on the Bay of Bengal (Carey and Tuck 1895:172). They either wholesaled the beads to established Marwari[18] traders or founded shops themselves in the bazaars. Naga traders came regularly to these centers and showed great discrimination when purchasing their carnelian beads. As a result, Cambay dealers sent the Naga only the highest quality beads (Untracht 1997:65).

Carnelian beads of several shapes were worn by the various Naga tribes. For instance, small oval and round beads were worn by the Ao, and each bead shape had its own name (Neufeld 2009: pers. comm.). Long carnelian beads with a hexagonal cross-section were only worn by the Naga tribes and must have been made specifically for them. Beads of this type – clearly of considerable age – are particularly treasured by the Naga today and regarded as heirlooms, but it is not clear how old these beads might be (Untracht 1997:56).

The money cowrie (*Cyprea moneta*) is found in the Indian Ocean, particularly around the Maldive Islands. Because of its attractive appearance, small size, hardiness, and portability, from very early times the cowrie was traded from South India to Southeast Asia and beyond. Several hundred cowries, including *Cyprea moneta*, were found in the Sanxingdui relics near Chengdu, China, in tombs dated 1100 B.C. Tens of thousands of cowries have been found in tombs in Yunnan from between the Warring State period (475-221 B.C.) and the Western Han Dynasty (206 B.C.-A.D. 9). These cowries were from the Pacific and Indian oceans, but particularly from the Maldives. Bin (2008:37) suggests the cowries could have been shipped initially to ports in Burma and subsequently on to Yunnan, but it is more likely that they went first to Bengal by sea, and then to Yunnan by the overland routes through Assam since navigation between the Maldives and Burma was harder than that between the Maldives and Bengal. If so, the route from the Bay of Bengal through Assam to China could be traced back to the middle of the first millennium B.C. (Bin 2008:37-38). Cowries were used as currency in India and parts of Southeast Asia including Arakan, Martaban, Pegu, Siam, Laos, Burma, and Yunnan. The Chinese Buddhist pilgrim Yuan Chwang refers to cowries as a medium of exchange in 7th-century North India (Watters 1904:178). An

8th-century rock inscription at Tezpur in Assam mentions a penalty of one hundred cowries for the infringement of laws regulating trading boats on the Brahmaputra (Barua 1951:102). Cowries have also been found in pre-Ahom graves (R.D. Choudhury 1991:30).

The Khasi, thought to be Northeast India's earliest inhabitants, used cowries (*sbai*) in marriage, divorce, funeral, and divination rituals (Gurdon 1907:37, 62, 80, 116, 136), a bag of netted pineapple fiber in which cowries were stored being found in every Khasi household. Tribal groups throughout India, particularly in Orissa and Assam, still wear cowries today. They are much valued by the Naga and indicate warrior prowess (Fig. 10). In the 19th century, cowries were traded up from the Assam plains or Calcutta by the Angami Naga. The Naga village of Khonoma had more or less a monopoly on cowrie shells for the whole of the Naga area. On the Burma side, they were bought in the bazaar at Tamanthi on the Chindwin River and traded by Naga from the Para and Longpfuri areas (Jacobs et al. 1990:39; Saul 2005:134).

The conch or, more correctly, chank shell (*Turbinella pyrum*) is found off the coast of Tamil Nadu in South India.[19] It is sometimes known as the "sacred chank" because of its importance in both the Hindu and Buddhist religions.[20] The origin of the chank cult in India is lost in antiquity but is thought to date as far back as 2000 B.C. Chank shells were used as horns. In Tezpur in the Assam plains, a stone relief said to date from the 9th century shows two male musicians blowing chank shells (Badadur 1933:172). Indian records from the 13th century refer to *Shankharakas* as a guild for Hindu craftsmen who worked with these shells, which implies that this craft is much older (Untracht 1997:175).

In the 19th century, the most important center for chank work was Dacca (now Dhaka, Bangladesh). Chanks were traded up to the plains and purchased from Bengali or local Marwari traders by Angami Nagas of Khonoma who cut the shell walls to make discoids for necklaces (Pls. IA, top; ID, top; IIA, top; IIB, bottom). They also polished and drilled the axis, or columella, to make beads (Pls. IB; IC; IIB, bottom). The Angami Naga excelled in this work and traded their finished ornaments over a wide area, even as far as Burma (Hutton 1921a:66). Small chank-shell beads were also used as currency (Hutton 1921a:72). Some Garo sub-tribes also wear necklaces and belts of chank-shell beads which they regard as heirlooms. They claim that these were manufactured by the Megam or Lyngngam (Playfair 1909:30), but it is more likely that they were traded from the plains or from the Angami. "Costly sea-shells" (likely chank, although possibly cowries) were also worn by the Dimasa Kacharis (Bordoloi et al. 1987:34), Barmans (Bordoloi and Thakur 1988:21), the Hmar (Bordoloi and Thakur 1988:33),

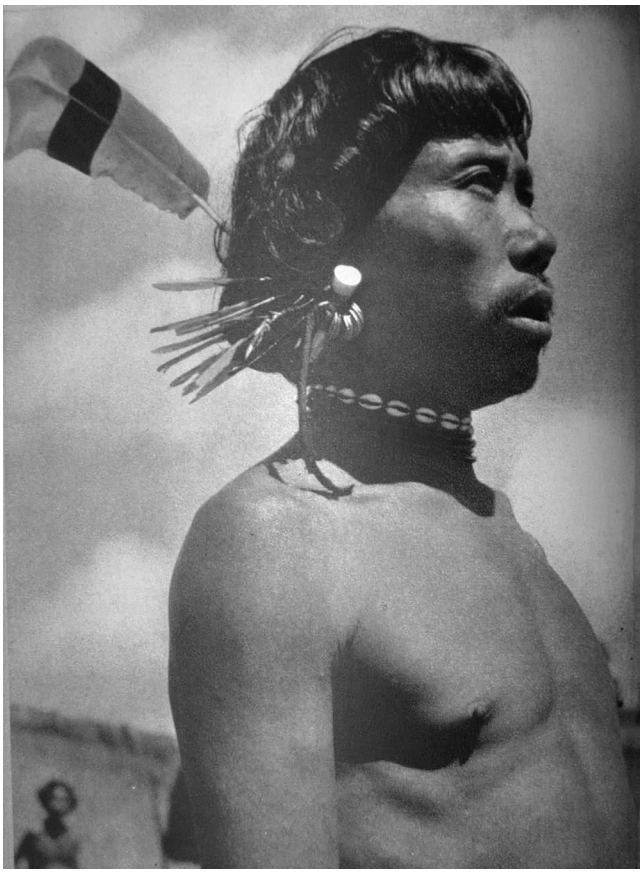

Figure 10. Zemi Naga wearing a cowrie-shell necklace (Bower 1950: Pl. XX; courtesy of Alison Betts and Catriona Child).

the Nishi and Apa Tani, as well as the Kachin. Both the Naga and Garo place a high value on certain "old" chank-shell beads and regard them as heirlooms because of their rarity (Bordoloi 1991:15; Untracht 1997:56, 58), but the age and origin of these beads is again unclear. Mills (1926:48) noted that beads of precisely this pattern made from the columella of the conch shell were found in ancient graves in South India, together with other ornaments of conch familiar in the Naga Hills. After Indian Independence and Partition, the majority of the Hindu chank craftsmen migrated to West Bengal where chank shells are still made into bangles by traditional craftsmen called *Shankaris*, although some work is still carried out in Dhaka (Heppell 2001). Imitation chank-shell beads were formed of wound opaque-white glass (Pl. IIC, top).

Major deposits of rock crystal (quartz) are found in South India and this was the material most commonly worked into beads in ancient Arikamedu (Francis 2002:16, 117). Crystal beads, often mixed with glass beads, are worn by the Phom Naga and are said to have been acquired from the Ao, but these are not regarded as heirlooms and are probably of relatively recent origin.[21]

Large rock-crystal slit-earrings of a rectangular shape up to 5 cm across, known as *tongbang*, are worn by the Ao Naga (Fig. 11). Similar ear ornaments with a circular outline are utilized by the Tanghkul and Ao of Longsa and Sangtam. Each *tongbang* is pierced in the middle with a single slit leading to the edge. The *tongbang* is inserted into a large hole in the earlobe and revolved so the slit hangs downward. The weight of the ornament stretches the lobe to such an extent that it often tears. Most *tongbang*, however, are not crystal but cheap glass imitations said to be bought in Assam or obtained from Angami traders.[22]

The oldest *tongbang* are regarded as heirlooms by the Naga and are called *Maibong naru*, *naru* meaning "ear ornament." In the 1930s, a good pair of old *Maibong naru* were valued at ninety to one hundred rupees, or five or six cows. Maibong was the 16th-century capital of the Kachari kingdom, later destroyed by the Ahom. The circular ear ornaments worn by the Tanghkul and Ao from Longsa and Sangtam were said to come from Burma.[23] Whether *Maibong naru* date back to the 16th century or much earlier is not clear, but similar slit-earrings of the circular type have been found in prehistoric Iron-Age graves (ca. 400 B.C.-A.D. 200) of the Sa Huynh Culture along the Thu Bon river in Central Vietnam and are common throughout South China (Yamagata 2006:175-177).

Figure 11. *Tongbang* ear ornaments made of glass; width: ca. 5 cm (author's collection).

WHO WERE THE *SIEMI* IN WHOSE GRAVES THE NAGA FOUND *DEO MONI*?

The original inhabitants of Northeast India are thought to have been Austric/Negrito peoples speaking the Austro-Asiatic/Mon-Khmer group of languages. They are represented today by the matrilineal Khasi, a small, isolated pocket of Mon-Khmer speakers who live in the Khasi-Jaintia Hills, surrounded by speakers of Tibeto-Burman languages (Gait 1905:5). Linguistic evidence suggests that the Khasi migrated from the east because, apart from the Munda of the Chota Nagpur Plateau which borders East Bengal, the majority of Austro-Asiatic speakers are found in Southeast Asia in Burma (the Mon), Laos, Cambodia, and Vietnam. According to Bareh (1985:12, 14), Khasi migration myths indicate origins in Southeast Asia along the banks of the Mekong.

The Khasi erected monoliths in memory of their dead and monoliths in the region – including the North Cachar Hills where the Siemi graves recorded by Bower were found – have been associated with Khasi settlements (Bareh 1985:5, 12). Khasi tradition suggests they abandoned the North Cachar Hills to exploit the iron ore and other minerals still found today in the Khasi-Jaintia Hills (Bareh 1985:38). Khasi village states were ruled by *Siems* or *Syiems*, meaning "king" in the Khasi language (Gait 1905:288; Gurdon 1907:66). Is it possible that the Khasi are the *Siemi* in whose graves the Naga found their *deo moni* or Indo-Pacific beads?

Oral tradition records Khasi contact with the kings of Tripura, a region southeast of the Khasi-Jaintia Hills and, in ancient times, near the trading ports of the Bay of Bengal. *Manicka* and *Manik* were used as a royal title for both the Tripura and Khasi kings (Bareh 1985:39). The Khasi were great traders (Gurdon 1907:67). One of the ancient South Indian guilds celebrated for its international trade was known as *Manikgraman* and was associated with at least two Srivijayan Indo-Pacific beadmaking centers. *Graman* means "guild" while *manik* is derived from the Sanskrit *manikya* meaning "precious stone" which evolved into the Hindu *mani* and *manek*, meaning "bead" (as in *deo mani* or *moni*). The *Manikgraman* controlled five craft guilds as well as oil pressers. Francis (2002:39) speculates that beadmaking could have been one of their unidentified crafts, and that the *Manikgraman* guild may have controlled the production and export of Indo-Pacific beads to ancient ports along the Bay of Bengal, and further east to Southeast Asia. It is tempting to speculate that the Tripura/Khasi title *Manicka* might have some ancient link with the trading of Indo-Pacific beads. Do the Khasi, like the Naga, value ancient Indo-Pacific beads today? Apart from a profusion of blue-glass-bead necklaces similar to those worn by their Indo-Tibetan neighbors the Garo,[24] we know from 19th-century informants that at festivals, the Khasi wore valuable necklaces of large coral and 24-carat lac-filled gold beads,[25] as well as elaborate silver coronets ornamented with filigree work. Although these were in a style quite distinct to the Khasi and not found anywhere else in Bengal or elsewhere in India, they were not made by the Khasi themselves but by Bengali jewelers in the plains who made a business of supplying the peculiar Khasi pattern. In the 19th century,

coral beads were imported from Calcutta (Gurdon 1907:21-23, 47; Henniker 1905:2, 11). Khasi myths suggest that in the past they ruled as far as Sylhet in the Bengal plains to the south, from where they were driven back into the Khasi Hills by a great flood (Gurdon 1997:10). Their gold and silver jewelry seems to suggests a "plains" rather than a "tribal" tradition, although they may have worn different ornaments in the ancient past.

A second candidate for Bower's *Siemi* are the Lyngngam (also spelled Lynngam and Lyngam), who, like the Khasi, are Austro-Asiatic speakers. The Lyngngam live between the Khasis and the adjoining Indo-Tibetan Garo tribe. Lyngngam chiefs are also called *Siems*.

The ethnic origin of the Lyngngams is disputed (Gurdon 1907:193). Some scholars believe the Lyngngam are not a separate tribe in their own right but a hybrid mix of the Khasi and Garo for, although the Lyngngam are matrilineal Austro-Asiatic speakers and observe some Khasi traditions, their customs are more Garo than Khasi. The Garo regard the Lyngngam as one of the twelve Garo sub-tribes and call them Megam. The Lyngngams dislike being called Garo and believe they are neither Garo not Khasi but descended from a group of warriors of the same name who fought and defended their land (Gurdon 1907:192; Langstieh and Reddy 1999:267-268). A Khasi myth relates their migration into the Garo Hills where they halted in a Lyngngam area in the far west where a local priest called U Mahbah granted them protection and gave them lands (Bareh 1985:115). While some recent genetic studies have proven inconclusive and there is no clear answer as to their origins (Langstieh 2009: pers. comm.), some scholars believe that the Lyngngam are the original inhabitants of the region, succeeded first by the Khasi and then by subsequent Tibeto-Burman groups (Langstieh and Reddy 1999:273).

The Zemi Naga myth relates Zemi migration into the North Cachar Hills where they encountered a handful of *Siemi* survivors. The *Siemi* were "small and dark." Gurdon (1907:3) describes the Lyngngam as "probably the darkest complexioned people in the hills." According to the myth, the Zemi and Siemi intermarried. The Zemi Naga and neighboring Naga tribes still show traces of a markedly negrito type, with dark skins and frizzy hair (Bower 1950:112). Perhaps the *Siemi* graves in which the Naga found *deo moni* belonged to the Lyngngam? Do the Lyngngam value Indo-Pacific beads?

According to Gurdon (1907:194), like their Garo and Khasi neighbors, Lyngngam women wore quantities of blue glass beads, but

> ... rich Lyngngams wear necklaces of cornelian and another stone which is thought by the Lyngngams to be valuable. A necklace of such stones is called *u'pieng blei* (god's necklace). This stone is apparently some rough gem which may be picked up by the Lyngngams in the river beds (Gurdon 1907:195).[26]

As previously mentioned, *deo moni* means "god's bead." The similarity of "god's bead" with the Lyngngams' *u'pieng blei* or "god's necklace" is remarkable. The Garo, with whom the Lyngngam share many traditions, call ancient stone axes *goera gitch* or "axes of God" (Gassah 1984:7), suggesting that both *u'pieng blei* and *goera gitch* were found underground and considered a miraculous gift from the gods. Beck (1930:166-182) notes that in South Sumatra, as with the Lyngngam, local tribes also searched for Indo-Pacific beads in riverbeds, beads probably washed from ancient graves in the rainy season. Could *u'pieng blei* be *deo moni*?

Certainly Lyngngam necklaces today include, among beads of other colors, many 19th- and 20th-century orange and red glass beads reminiscent of *deo moni* (Pl. IIIC, bottom). On a recent field trip to Lyngngam villages, however, the author failed to uncover any Indo-Pacific beads in Lyngngam necklaces. There may be a reason for this. It was, and still is, the custom among both Garo and Lyngngam women to be buried with their ornaments (Carey 1919:115; Langstieh 2009: pers. comm.). Secondly, the Lyngngam, like their neighbors the Khasi and Garo, were early targets of Baptist Christian missionaries who began to arrive in India in the 1830s during the British-colonial period. Today, more than 80% of the Lyngngam, Khasis, and Garo are Christians. Sadly, many missionaries saw traditional tribal dress (regarded as too "scanty") and heirloom beads (Pl. IIID) as part of their converts' animist past and actively encouraged their disposal. Much-valued necklaces called "god's beads" may have been regarded as particularly "unchristian" and targeted for disposal first. Although missionary activity among the Naga is less prevalent, Kanungo (2007:10) recounts that in 2006, converts in the village of Oting near Mon were asked by Baptist missionaries to bury all their tribal beads in a large trench, on top of which the missionaries then built the village church.[27]

Missionary activity among the Lyngngam began in the 19th century and today their tribal beads are very rare (Pl. IVA), found only in the homes of a few old women in remote villages. When these women die, their beads are buried with them (Lanstieh 2009: pers. comm.). More research is in progress, but sadly, it may not be possible to establish whether or not *u'pieng blei* are *deo moni/khaji*, and thus provide a possible link between the Lyngngam and the *Siemi* graves in the North Cachar Hills.

DISCUSSION AND CONCLUSION

It would appear that *deo moni/khaji* are orange Indo-Pacific beads of at least two types, probably made in coastal southeast India between 200 B.C and A.D. 200. These beads have been found in ancient graves on a route stretching from Northeast India's North Cachar Hills into Burma's Kachin State almost as far as the Chinese border. Far from being a historical backwater, Northeast India lay at the crossroads of land *and* sea routes connecting it to Southeast Asia and China to the east, to Central Asia and the Mediterranean world to the west, and to Nepal, Bhutan, and Tibet to the north, part of an active and extensive international trade network. This ancient trade brought cowries, chank shells, and carnelian beads which are still worn by the Naga, Kachin, and many other tribes in the region today.

Nonetheless, many questions remain unanswered. To whom did the graves in which the *deo moni/khaji* beads were found belong? What other artifacts might also be found in these graves? If the *Siemi* people referred to in the Naga myth were indeed the Lyngngam, research to date has failed to prove it.

Do tribes other than the Naga and Kachin also value *deo moni/khaji* beads? Research into the literature on the tribes living in the north of British Assam, today's Arunachal Pradesh, has failed to reveal further references to orange-colored beads which might be *deo moni/khaji*. In British-colonial times, however, there were a multitude of small ethnic groups and sub-groups in this region, and many were not studied to the same extent as were the Kachin and Naga. We lack detailed information. Moreover, the opaque grainy glass from which *deo moni/khaji* were made was not understood by early colonial visitors and references to what may have been Indo-Pacific beads are often obscure and confusing. For instance, Dalton (1872:47) mentions that the Kukis, a tribe spanning the border between Northeast India's Mizoram and Burma's Chin state, wore "pebble beads, [they call] them heirlooms, [and] attach to them an extravagant value. To a stone called *toino*, which is not described, a value equal to Rs. 3000 in cash has been ascribed." Whether the *toino* of the Kuki or *u'pieng blei* of the Lyngngam are *deo moni/khaji* remains unclear.

Once they reached the ancient ports of the Bay of Bengal, how were the *deo moni/khaji* beads traded further north? Were the Tripura or Khasi kings, later known as *Manicka* and *Manik*, involved in this bead trade? Were the Indo-Pacific beads intended for a specific ethnic group, bartered for the fragrant oils and ivory from the nearby hills, and subsequently traded down the line to groups further northeast in northern Burma? Or were they also traded west into Bengal and central India in exchange for produce from further afield?

The route from the North Cachar Hills to northern Kachin State traces in reverse the ancient migration and trade route from China into Northeast India. Is it possible that the beads actually traveled along this route in the same direction as the migrating tribes? This seems unlikely because Indo-Pacific beads of the *deo moni/khaji* type are thought to have been made in southeast India. They have not been found in Thailand, from where they might have been traded overland north into Kachin State.

The shape and color of *deo moni/khaji* Indo-Pacific beads has suggested an origin in coastal Southeast India. Yet no *deo moni/khaji* beads have so far been analyzed to confirm a match with other beads of a similar shape and color. Glassmaking was a highly portable skill. We know that Indo-Pacific beads were subsequently made in large quantities at Mantai in Sri Lanka, Oc Eo in Vietnam, Klong Thom in Thailand, and Kuala Selinsing in Malaysia. Both Francis (2002:39) and Lamb (1965b:95) have suggested the existence of itinerant beadmaking groups, their activities controlled and funded by their guilds, who were despatched to major port cities where there was a demand for glass beads. Could *deo moni/khaji* beads have been made by itinerant beadmakers in one of the ancient Ganges or Brahmaputra delta ports? Or is it possible, as claimed in the Naga myth recounted by Ursula Graham Bower (1952: 115), that the *Siemi* themselves, "by a secret process involving the use of fire, made precious *deo-moni*, the 'spirit-beads,' from slender, carefully-cultivated gareo bamboo?"

At the author's request, on a recent visit to Nagaland, Catriona Betts, daughter of Ursula Graham Bower, agreed to question Naga friends for more information. As this article goes to press, she reports the following, supplied by the Reverend Nriame, a Zemi Naga of Laisong Village in the North Cachar Hills: "The *Siemi* made *deo moni* by burning the outer skin of the *gareo* bamboo into a powder, which was burnt with a mineral, plus soil and another herbal ingredient. The *Siemi* taught the Zemi Naga many things and the Zemi used to make the *deo moni* themselves."

Glass could not be produced from these ingredients, but the basic elements mentioned do indicate some knowledge of glassmaking. Soda-lime glass of the type used for Indo-Pacific beads was made from silica (SiO_2), normally obtained from silica sand or crushed quartz. Sodium carbonate (Na_2CO_3) – usually the soda ash obtained from burning certain plants – was added as a flux to lower the melting point. The soda makes the glass water-soluble, so lime (calcium oxide, CaO) was added, generally in the form of pulverized

limestone or shells from middens. Ash from the *Siemi's gareo* bamboo may have been used as a flux. Dussubieux and Gratuze (2009: pers. comm.) report that beads of the *deo moni/khaji* type were high in copper. Two 11th-century inscriptions refer to copper mines – probably located in the Garo or Khasi Hills – which were worked by the Khasi in the ancient kingdom of Kamarupa (Badadur 1933:138, 140, 186; Barua 1951:102). The "mineral" reportedly used by the *Siemi* might have been copper ore to impart the red or orange color, and the "soil" might be construed as sand. In a Naga myth, smoke from the *Siemi* glass kilns was seen by the Kachari king from his 16th-century capital, Maibong. This suggests the *Siemi* were still making *deo moni* in the 16th century. Is this plausible? Evidence of early raw glass manufacture is rare. Ancient glass kilns were small scale and archaeological evidence rarely amounts to more than patches of charcoal and melted unfinished beads at various stages of manufacture showing either primary (raw-glass manufacture) or secondary production (imported glass reworked for the local market).

Indo-Pacific beadmaking, even in island Southeast Asia, dropped off after A.D. 1200. Perhaps in the 16th or 17th century when the Zemi Naga migrated into the North Cachar Hills, the *Siemi* did indeed operate a lucrative trade in valuable *deo moni* beads, but claimed they made them in order to conceal the fact that they found them in ancient graves. Perhaps the *Siemi* made beads which were simply one of the many later orange-glass beads made to imitate *deo moni/khaji*. According to Munan (2005:30), Western travelers to island Southeast Asia in the 16th and 17th centuries reported that "small reddish brown beads" were available "in India" and were readily bartered for exotic produce in Indonesia.

Many questions remain unanswered on the true origins of *deo moni/khaji* beads, and much research remains to be done.

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ENDNOTES

1. In 1772, a massive earthquake completely changed the direction of the mighty Brahmaputra.

2. The Hkanung are also known as the Rawang, a Kachin sub-tribe.

3. The Rawang are a sub-tribe of the Kachin.

4. Gitkat in the Kachin language; Gitkha in the Rawang language.

5. The Chinese Buddhist pilgrim Yuan Chwang (also written as Hsuan Tsang and Hiuen Ts'ang) reached Kamarupa (Guwahati) in the Brahmaputra Valley in A.D. 638. He wrote that "the mountains and rivers present obstacles, and the pestilential air, the poisonous vapours, the fatal snakes, the destructive vegetation, all these causes of death prevail" (Watters 1905:186).

6. *Deo* from the Sanskrit meaning god and *mani* from Sanskrit meaning bead, gem, or jewel.

7. In describing the ornaments of "the Nagas west of the Doyang river," Dalton (1872:43) must surely have been describing *deo moni* in the following: "They greatly affect cylindrical beads of a yellowish, almost greenish looking opaque substance, but few are rich enough to have a complete necklace of these valuable jewels."

8. These are probably more recent copies of *deo moni*, of which one type from Germany is mentioned by Carrapiet (1929).

9. The Ao are a Naga tribe.

10. Hanson is presumably confusing *deo moni* with *pumtek* beads which were made from fossil wood as well as carnelian and agate.

11. For other references to what appear to be *deo moni*, *see* Hodson (1911:34), and McCulloch (1859:52): "In their festivals, the men wear their peculiar ornaments of which the most prized are necklaces of a red pebble. A single stone of this sort is sometimes valued at five methins."

12. Bower (1950:112) also mentions other pre-Naga remains such as the burial urns of Bolosan. Traces of fortified villages belonging to a vanished tribe were also reported in the Chin Hills (Carey and Tuck 1895:174).

13. The beads were also examined by British Egyptologist Alfred Lucas (1867-1945), consulting chemist to the Egyptian Department of Antiquities in Cairo. Lucas' area of study was ancient faience, the composition of which was a matter of great dispute (Gilberg 1997:31-48).

14. Beck refers to van der Hoop (1932:229): "In a mound which enclosed two kettle drums.... [were] a number of pottery vessels [which]... were disposed around the drums, perhaps containing offerings. Underneath one of the pots, opaque glass beads of a terracotta red colour were found, which may have been the remains of a necklace."

15. *Wakching mala* have spacer bars of brass rather than bone or horn as found on less-valuable necklaces of similar design (Neufeld 2009: pers. comm.).

16. The stone beads were made by two distinct methods: grinding, used by beadmakers in Western India, and pecking, used by the Pandukal. The Pandukal also made etched carnelian beads. Francis (2002:116) notes that stones were fixed on a short stick (a dop) with lac to be ground against a wheel. This method was unique to the Pandukal. The same method is used today at Kangayam but not elsewhere in India. Dops are still used today in Burma, however, showing an influence in hardstone beadmaking between these two areas.

17. Roman amphorae have been found at Arikamedu in large numbers dating from the second century B.C.

18. The Marwari are non-Muslim traders, originally from Rajasthan. In British-colonial Assam, they operated in almost all the important business centers and tea gardens of the state (Singh 2003).

19. Also known as *shankha* (*Turbinella pyrum*). The true conch genera is *Strombus*. The name conch, however, is often loosely applied in English-speaking countries to several kinds of large marine gastropods, including the chank shell.

20. The conch is particularly associated with the Hindu gods Vishnu and Krishna.

21. Imitation crystal beads in bubbly glass were traded from India (Ao and Liu 2003:7).

22. Recent imitations of circular *tongbang* made of perspex (plexiglass) are worn in Myanmar suspended by a cord over the head.

23. Glass imitations of the circular type are said to come from Myanmar (Saul 2005:49, 54).

24. These beads were obtained from the plains markets of Damra (near Goalpara in the Assam plains) and Moiskhola (Gurdon 1907:48, 196). Compared to the Khasis, the Garos had more access to the plains of Assam and also the Chittagong Hill tracts of what is now Bangladesh (Langstieh 2009: pers. comm.).

25. Stick lac was cultivated locally in the Khasi and Garo hills, the insects feeding on pulse plants grown for the purpose. The crude product consisted of twigs with a hard lump of dark gummy substance around them. The gum, when washed, is of an orange color, and the dead bodies of the insects are embedded in it. It was purchased by Marwari merchants who exported it to Calcutta (Carey 1919:20; Gurdon 1907:48).

26. Earlier Gurdon (1914:23) states: "The Lynngam males wear bead necklaces, the beads being sometimes of cornelian gathered from the beds of the local hill streams... the carnelian necklaces are much prized by the Lynngams, and are called by them '*ping blei*, or gods' necklaces." He later corrects this.

27. Today many missionaries are far more tolerant and the wearing of traditional dress and ornaments is often encouraged at Christian festivals such as Christmas and Easter.

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