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The megalithic complex of highland Jambi

An archaeological perspective

Introduction

The highlands of Sumatra remain one of the most neglected regions of insular Southeast Asia in terms of history and archaeology. No comprehensive research program incorporating both a survey and excavations within a defined geographical or environmental zone has been carried out there since Van der Hoop (1932) conducted his study of the megaliths on the Pasemah plateau in the 1930s. Meanwhile, Van der Hoop's investigations and several other archaeological research activities at places such as northwest Lampung (McKinnon 1993), Pasemah (Sukendar and Sukidjo 1983-84; Caldwell 1997; Kusumawati and Sukendar 2000), Kerinci (*Laporan* 1995a, 1996a), and the Minangkabau heartland (Miksic 1986, 1987, 2004) have placed special emphasis on the megalithic remains. As a result, the megaliths are by far the best-known archaeological attraction of the Sumatran highlands.

The morphological diversity of the stone sculptures in this vast and remote region suggests the existence of different cultural units in the prehistory of

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highland Sumatra. Dating these so-called megalithic complexes and putting them in a larger historical and socio-economic context, however, still pose many problems. Megaliths that have remained particularly understudied are those located in the regions of Kerinci, Serampas, Sungai Tenang, and Pratin Tuo, which, being situated in the mountainous area at the western border of Jambi Province, jointly constitute the Jambi highlands (Map 1).

Due to the lack of archaeological information about this region, a new research program was initiated in 2003.¹ Based on official collaboration between Indonesian, German, and Swiss institutions, this program has had two fieldwork seasons and included researchers from a variety of disciplines.² The objectives of this research program are as follows. First, to unearth the material culture of the Jambi highlands and to interpret the artefacts, including the megaliths, in their archaeological context. Second, to search for intra- and inter-regional cultural links by means of comparative studies based on material culture. Third, to date the material culture, and thus to establish a chronology for the settlement history of the region starting from neolithization down to the introduction of Islam.

In this article, we primarily discuss the results of our second research campaign, in 2005.³ This campaign had two main components. The first was implementation of a series of excavations in the Serampas village of Renah Kemumu aimed at unearthing information about a megalithic site and a cluster of buried earthenware jars. The second was documentation of all the megaliths situated in the Jambi highlands. These two components are discussed in turn following an area description and a brief summary of our research results from the first season.

¹ Preliminary reports on the research activities are published in Bonatz 2003, 2004, 2006.

² The official cooperating institutions are the Pusat Penelitian dan Pengembangan Arkeologi Nasional (PUSLIT, National Research Centre of Archaeology) in Jakarta and the Institute of Ancient Near Eastern Archaeology at the Free University of Berlin in Germany. Associated institutions are the Balai Pelestarian Peninggalan Purbakala Jambi (SUAKA, Archaeological Preservation Office in Jambi), the Balai Arkeologi (Archaeological Research Centre) in Palembang, and the Institute of Ethnology at the University of Bern in Switzerland.

³ The research was sponsored by the Swiss-Liechtenstein Foundation for Archaeological Research Abroad (SLSA). Team members in 2005 were Dominik Bonatz (archaeologist, Free University of Berlin), Anina Feller (anthropologist, University of Bern), Listyani (draughtswoman, SUAKA), Isa Löffel (anthropologist, University of Bern), Tri Mahaini Sosiana Budisantosa (archaeologist, Balai Arkeologi Palembang), Mukhalim (draughtsman, SUAKA Jambi), John David Neidel (anthropologist/archaeologist, Yale University), Bagyo Prasetya (archaeologist, PUSLIT Jakarta), Mai Lin Tjoa-Bonatz (art historian, Berlin), Agus Widiatmoko (archaeologist, SUAKA Jambi), and Jana Zemp (anthropologist, University of Bern).

Regional setting

The megalithic complex discussed in this article is scattered across the regions of Kerinci, Serampas, Pratin Tuo, and Sungai Tenang in the highlands formed by the Barisan Mountains.⁴ This mountain range, which runs almost without interruption from Lampung in the south to Aceh in the north, was formed through tectonic folding caused by subduction of the Indian Ocean plate under the Sunda Shelf, resulting in the formation of two parallel ranges and widespread volcanic activity.⁵ The western range of mountains is more or less continuous, with elevations averaging about 2000 metres, while the eastern one is more broken, with elevations ranging from 800 to 1500 metres. Between the two ranges lies a tectonic depression, referred to by scholars as the Semangko Graben or Median Graben, which forms a series of highland rift valleys. These valleys are considered the original homelands of a number of Sumatran ethnic groups (Miksic 1985:425; Scholz 1987:460; Reid 1997).

When viewed from northwest to southeast, the Semangko Graben in Jambi Province is divided into the regions of Kerinci, Serampas, and Sungai Tenang. Kerinci is geographically the largest area and consists of the Kerinci Valley, which is approximately 70 km long and 10 km wide, and the surrounding uplands. At the north end of the valley lies Mount Kerinci (3805 m), the tallest volcano in Indonesia. In the southern portion of the valley lies Lake Kerinci, which drains eastward into the Merangin River. Serampas directly abuts Kerinci to the southeast and is marked by very hilly terrain generally interspersed with deep river valleys. Serampas comprises the upper portion of the Dikit River watershed, which is relatively unique on Sumatra in that the river breaks through the western range of the Barisan Mountains and flows westward into the Indian Ocean. Sungai Tenang lies southeast of Serampas and consists both of the Semangko Graben as well as the southern and western slopes of Mount Masurai and Mount Tongkat. Rivers in this region flow eastward. Meanwhile, Pratin Tuo is the only region under discus-

⁴ The name Kerinci currently refers to an administrative district (*kabupaten*) in the province of Jambi. According to a number of scholars, the name formerly covered a much larger area including almost the entire region currently under discussion (Bakels 2000:53; Djakfar and Idris 2001:13-21; Znoj 2001); though Neidel (2006:410-2) challenges this interpretation. Meanwhile, the names Serampas, Sungai Tenang, and Pratin Tuo refer to several *marga*, former administrative units consisting of a number of inter-related villages which were located hierarchically below the level of the subdistrict (*kecamatan*) during the colonial and post-Independence period. The *marga* were officially disbanded by administrative reforms in 1979, but have nevertheless remained important geographically and in terms of regional identity. Serampas and Sungai Tenang today jointly constitute Jangkat Subdistrict, while Pratin Tuo is now part of Lembah Masurai Subdistrict within the Merangin District of Jambi Province.

⁵ Verstappen 1973; Whitten et al. 2000. While scholars refer to both ranges as the Barisan Mountains, people living in highland Jambi themselves typically only use that name for the more prominent western range.

sion that does not lie within the Semangko Graben at all, consisting rather of the eastern slopes of Mount Hulu Nilo and Mount Masurai.

Despite their geographical isolation, the people of the highlands have long maintained various political and economic ties to both the eastern lowlands and the west coast. Early highland involvement in international trade, possibly starting around the advent of the Christian era, is suggested by the existence of bronze materials in Kerinci and other highland regions in southern Sumatra (see discussion in Conclusions). Around the seventh century AD, the first kingdoms of Sumatra formed at strategic locations along the rivers of eastern Sumatra, which are navigable for hundreds of kilometres upstream, generating political and economic power through their access to both international trade routes as well as supplies of gold and forest products from the highlands.⁶

The history of highland involvement with ports on the west coast of the island, however, is harder to determine. Because of a deep-sea depression between Sumatra and the small islands to the west, such as Nias, Mentawai, and Enggano, only a very narrow coastal strip bordering the Indian Ocean has been developed. As a result, the west coast is battered by strong wave action and contains few good natural harbours (Whitten et al. 2000). Despite this geographical disadvantage, however, inscriptions and other documentary evidence make it clear that Arab and Tamil merchants were conducting trade with peoples on the west coast from at least the tenth century, most prominently at Barus in present-day West Sumatra (Drakard 1990; Guillot 1998). The presence of a thirteenth-century Tamil inscription near Suarso in highland West Sumatra may reflect a wider geographical scope of direct or indirect Tamil involvement.⁷

Our knowledge of highland life and political-economic ties with the west coast remains limited even after the establishment of a permanent British presence in Bencoolen (the modern-day city of Bengkulu) and neighbouring regions of Sumatra's west coast in 1685 (Kathirithamby-Wells 1977). Although it is clear that highlanders frequently journeyed to coastal towns like Moco-Moco to engage in trade, the difficult terrain and potential for hostility restricted direct British interaction with peoples of the region to the more easily accessible coast and adjacent lowland areas. The first European accounts of the highlands were not until the beginning of the nineteenth century, when Charles Campbell, Lieutenant Hastings Dare, and Charles Barnes led three separate expeditions into the Jambi highlands (Marsden 1966:304-24; Kathirithamby-Wells 1986). Their accounts continued to serve as important sources of information about the region until the imposition of direct Dutch colonial control in 1903.

⁶ Wolters 1967; Miksic 1985; Oki 1986; McKinnon 1992; Andaya 1993.

⁷ Christie 1998. The name Kerinci, it has been suggested, might derive from the Tamil term *kurinci*, which means a 'hilly or mountainous area' (McKinnon 1992:135).

Summary of the 2003 campaign

The first archaeological campaign took place in the region south of Lake Kerinci between the Muak hills in the east and the highland marshes of Lempur in the west (Map I). This region was chosen because it has a long history of yielding impressive archaeological remains. When Van der Hoop (1940: plates 75-87) went there for a short inspection in 1937, he discovered a rich variety of local pottery wares, many of them with cord-marked designs, and stone implements, most of them made from obsidian. Chance finds of early Chinese porcelains and bronze objects, such as the famous flask-shaped bronze flask, were taken as evidence of Bronze Age traditions in this region, to which Van der Hoop (1940:204) also assigned the megaliths. Watson (1979) further stressed the importance of the region, adding some new materials, which he collected mainly at the Muak site south of Lake Kerinci in the mid 1970s. Finally, small-scale excavations were conducted at the Muak and Benik sites in the 1990s (Prasetyo et al. 1994; *Laporan* 1995a, 1996a) as part of a larger campaign to protect the megaliths found in the region (*Laporan* 1995b).

Our own research team first visited the region in 2002 and mapped places of archaeological interest (Bonatz 2003). Two sites were chosen for excavation in 2003, one at Pondok on the hilltops overlooking the southern portion of Lake Kerinci and the valley of the Batang Merangin, and the other at Sungai Hangat in the valley of the Air Hitam north of Lempur.

The Pondok site, which is named for a nearby village, contains a megalith measuring 2.30 m in length, 0.42 m in width, and 0.77 m in height, conical in shape and carved with anthropomorphic and geometric designs (Fig. 1; for a description see a later section). The excavation, centred close to the megalith, covered an area of about 320 m² and led to the documentation of a large house situated just north of the megalith (Fig. 2). The house had been erected on 26 wooden posts, which had been driven directly into the ground. The postholes allowed us to calculate the total size of the building, which was 15.50 x 9.90 m, plus an elevated entrance on its western front. The homogeneous appearance of local pottery wares found in the earth stratum of the postholes points to one occupation phase to which both the house and the megalith belong. Two ritual deposits containing iron knives and several hundred glass beads are also closely associated with the house and the megalith as well (Bonatz 2004: figs. 20-22, 2006). The knives and the beads are imports, as are the few sherds of Chinese Celadon and stoneware from the late Song (1127-1279) or Yuan Dynasty (1279-1368), which were found mixed in with the local pottery. In light of this evidence, a date between the twelfth and fourteenth century AD has been proposed for the occupation of the whole site (Bonatz 2004:132, 2006:322).

The second site at Sungai Hangat provides a different type of geographi-

cal context since it is situated at the bottom of a valley, immediately bordering a river, the Air Hitam (Fig. 3). Decreased waterflow in the riverbed, caused by an earthquake, appears to have been one of the main reasons why the site was abandoned during the early twentieth century. Before that, this site was an important river crossing for pathways connecting the plains of Lempur and Lolo Gedang with Lake Kerinci and the Batang Merangin. The site does not contain a megalith, but potsherds scattered over the surface indicate intensive settlement activity. Unfortunately, the excavations carried out here over an area of about 1500 m² did not expose any architectural features. It also turned out to be impossible to obtain a stratigraphy of the soil layers, which would have allowed us to put our finds in chronological order (Bonatz 2004:118-25, figs. 2-11).

Nevertheless, the quantity of cultural material, especially ceramics, unearthed at Sungai Hangat was very impressive. Out of 130 fragments of Chinese porcelain and stoneware, 18 are from the late Song/Yuan period of the twelfth to fourteenth centuries, ten from the Ming Dynasty (1368-1644), and 82 from the Qing Dynasty (1644-1912). These imports indicate that the location had been inhabited over several centuries. The site also yielded a large amount of earthenware potsherds. All of the earthenware was hand-made and shaped with the paddle and anvil technique. Many pieces were decorated; cord-marked decorations are the most common, but there were also some impressed and incised designs (Bonatz 2006: fig. 29.17). Up to now, no criteria exist to date this earthenware in terms of typological or technological differentiation. The archaeological record also does not allow us to synchronize the development of local pottery forms with the distribution of imported Chinese ceramics. The rich assemblage from Sungai Hangat, however, does provide us with an important basis for comparison with other places like Serampas in the south.

Over the course of this campaign, archaeological surveys were also carried out in the vicinity of the Sungai Hangat and Pondok sites. These surveys yielded evidence of many more settlement places in this region. Since very few of them are directly connected with a megalith, a question arises about the status of the megalithic sites within a complex settlement system. This is a question we return to at the end of this article. Another question, concerning the spatial and temporal distribution of prehistoric settlements in the region, can be answered only when more archaeological, historical, and environmental data have been gathered.

Excavations in Serampas in 2005

The second campaign was undertaken in the village of Renah Kemumu in 2005. Renah Kemumu, one of five villages of the (former) *marga* Serampas, lies

approximately 30 km south of the Pondok site, deep inside the Kerinci Seblat National Park. Accessible only by foot, the village is located at the northern end of a small fertile valley, surrounded by steep hillsides (Fig. 4). Two streams on the eastern and western edges of the valley supply water to the village and its wet-rice fields (*sawah*), which cover most of the valley floor.

According to oral histories, Renah Kemumu was established during the early twentieth century, when remnant populations from a number of earlier villages came together.⁸ A survey of the village territory conducted between 2001 and 2003 resulted in the documentation of 23 abandoned village sites. The vast majority are located on hilltops or other easily defended locations and are characterized by grave mounds, economically valuable plant species, and dry moats, which range from 1 to 6 m in depth (Neidel 2006:238–52). During that survey, the existence of a megalith and cluster of earthenware jars were also documented and reported to SUAKA Jambi (Ikhsan 2003). This megalith and cluster of jars served as the foci of our investigations.

The excavation at Bukit Batu Larung

The first of two excavations was conducted in the vicinity of the megalith, which is referred to locally as *batu larung*. The megalith occupies the easternmost summit of a long narrow ridge, approximately 1.5 km southeast of Renah Kemumu (Fig. 5). According to local informants, the megalith was discovered about 30 years ago when the region was cleared for agriculture. The presence at the time of *durian* (*Durio zibethinus*), *petai* (*Parkia speciosa*) and *jengkol* (*Archidendron jiringa*) trees indicated to farmers that the area had been cleared in the past, although forest succession was well advanced.

The megalith (Fig. 6) is roughly cylindrical in shape except for one flat side, which is likely the bottom, indicating that the megalith was turned onto its side at some point in the past – presumably by locals in search of buried wealth. The megalith consists of andesite tuff, a volcanic rock characteristic of this region.⁹ It measures 3.35 m in length, 1 m in width, and 0.80 m in height. The large drum-like end of the megalith contains a carved image, which appears to be a crouching human.¹⁰ That image points to Mount Garakah, a

⁸ When Lieutenant Hastings Dare led a British military expedition through the region in 1804, he noted that Serampas consisted of ‘fifteen fortified and independent *dusuns*, besides *talangs* or small open villages’ (in Marsden 1966:320). One village which he visited was Tanjong Agung, a now abandoned village site that lies within a kilometre of Renah Kemumu. When exactly people moved is not clear. The name Renah Kemumu, however, was first mentioned by August Tobler (1919), who passed through this region on a geological survey carried out between 1906 and 1912. A hint of Tobler’s expedition into the Serampas area might be the existence of a small green glass bottle produced by the chemical supply company H&A Lubszynski in Berlin which we found during our excavations in Renah Kemumu.

⁹ The mineralogical and petrographic analysis using an X-ray spectrometer PW 2404 was conducted by M. Martin.

¹⁰ The image looks more human, but local informants indicated that the image formerly had a tail, the base of which is barely perceptible.

prominent mountain in local village origin myths and legends. It is from that mountain that the megalith is said to have been fired during a 'war of the mountains' (*perang gunung*).¹¹

The excavation was conducted in the vicinity of the megalith. The site, which was being used as a coffee and cinnamon agroforest at the time, was completely cleared of vegetation. Four areas were initially laid out roughly at the four corners of the megalith, with the first three measuring 10 x 10 m (Areas A, B, D) and the fourth (Area C) 10 x 8 m due to the presence of a large tree (Fig. 7). A fifth area (Area E), measuring 4 x 8 m, was added at a site located 125 m to the southwest of the megalith to help gauge the extent of the site. Finally, two additional units (Areas F and G) were then added between Areas A-D and B-C so that the ground to the sides of the megalith was completely excavated. The total area of excavation was approximately 500 m². Excavations in all the areas proceeded simultaneously over 16 days, with the assistance of 10 to 15 local workers.

In Areas A and B, structures were uncovered comprising numerous pieces of burnt clay, some of which formed roughly shaped bricks. Some of the clay pieces were aligned in a circular pattern, suggesting that in the past they may have formed a fire hearth. Many potsherds, including ones that could be clearly identified as having come from a cylindrical beaker, knobbed lids, and small cooking pots, were discovered here (and indeed in all of the areas), once again indicating that this site was used for food preparation.

The fact that a large number of potsherds were also discovered in Area E, far removed from the megalith, suggests that a settlement had formerly inhabited much of the hill top. If this interpretation is correct, it is interesting that there is no evidence of a moat, a characteristic of practically all the 24 abandoned village sites of Renah Kemumu still recognized by villagers today. The absence of local knowledge about the site further suggests that it represents an earlier period, either one in which moats were not extensively used or one distant enough in the past that the moat has disappeared.¹²

¹¹ According to locals, the war was fought between two ancestral spirits: Nenek Wali Mantring Baju Temago who lived on the top of Mount Sumbing and Nenek Serampu Alam Sati who resided on Mount Garakah. At least one of the megaliths is said to have hit Mount Sumbing, giving it its craggy shape – *sumbing* means fractured in Indonesian (Neidel 2006:403-4). It is interesting that such an elaborate story appears to have developed over the last 30 years since the rediscovery of the megalith. See a similar story below.

¹² Aside from moats, historical documents reveal that a number of other defensive technologies were available to villagers in past periods, including live fences made of spiny bamboo (*Bambusa blumeana*), bamboo palisades, and sharp bamboo stakes called *ranjau*. These defensive measures would not be well preserved in the archaeological record, though spiny bamboo still grows in a few of the abandoned village sites (Neidel 2006:100). In March 2006 the fortified settlement of Dusun Tinggi in Serampas was excavated.

Underscoring past habitation in the area, Area F contained a large flat stone measuring 0.5 x 0.9 m (Fig. 7, on the right). The abraded surface of the stone clearly shows that it had been used in the past as the base for the post of a building (*batu sendi rumah*). This was only one of several *batu sendi rumah* that would have been used, indicating that the other stones, which are still used in house construction today, had been carried off at some point in the past.

In addition to this large stone, Area F also contained a scattering of 24 round and semi-round stones of unknown use. This was the most significant concentration of these stones, though over 60 stones of varying sizes (from 2 to 10 cm) and shapes were found spread over all of the areas, except Area G (Fig. 8). Some of the flat or pyramid-shaped stones may have served in the past as grinding or sharpening stones, while the round ones may have been used as potter's anvils. The fact that some of the round stones were quite small, 2 to 4 cm in diameter, coupled with our discovery of a small number of hard-fired clay balls (Fig. 8), however, suggested to our workers that some of the smaller clay balls may have served as projectiles.¹³ Supporting this interpretation is the fact that the art of throwing such projectiles with slings is still practised in parts of Kerinci.

A total of 18 highly oxidized pieces of metal were uncovered in all areas. Of these, three clearly belonged to a single spear blade, several were recognizable as the tang of knives, daggers or machetes, two appeared to be nails, and the rest seemed to be parts of other metal tools. This concentration of metal in the vicinity of the megalith may reflect some function of the rock in preparation for inter-village warfare that was well known in the Jambi highlands in past times.¹⁴ Such an interpretation is highly speculative, however, since all of the tools also have everyday uses in terms of agriculture and hunting. Interspersed throughout the areas were also a large number of obsidian flake tools and debris suggesting a temporal overlap between the lithic- and metal-based technologies. Finally, in Areas A and B, several pits were discovered containing a significant quantity of ash, as well as additional potsherds, and glass beads (or fragments thereof). Area A had the greatest concentration of beads, though they were not all found in one location as they had been in Pondok.

¹³ Hard-fired clay balls were also found in Lebakbandung (*Laporan* 1996b) and are common in Thai prehistoric sites, where they have been used until recently with a type of bow equipped with a divided string.

¹⁴ Charles Campbell, who travelled to Kerinci in 1800, for example, writes that the people were 'frequently engaged in warfare, village against village', although the cause of the warfare is not mentioned (in Marsden 1966:307-8). Eighteen years later, Charles Barnes mentions a 'war' between the adjacent villages of Lolo and Lempur over control of sulphur, used in the manufacture of gunpowder, at the crater of Mount Kunyit (Kathirithamby-Wells 1986:44). More ambiguous is Hastings Dare's mention, upon visiting Tanjong Agung in Serampas, that there had been a 'great deal of sickness and bloodshed in the village' (Marsden 1966:318).

The artefacts recovered from the site represent a broad range of historical periods. Three foreign ceramic sherds discovered in the course of the excavation have been identified as Swatow porcelain dating from the sixteenth or seventeenth century (Bonatz 2005: fig. 10), and Chinese porcelain and European stoneware from the nineteenth century. Some of the glass beads may be significantly older. Among the beads were a two-segmented gold glass bead, a translucent bluish glass bead and several small opaque drawn-glass beads that were orange, yellow, green, and blue in colour. The gold glass bead is made of two layers of glass with a partial layer of metal foil in between. Such gold glass beads were first made in the late Hellenistic period and continued to be made in the Islamic period, the most likely date of this bead. The soda-plant ash composition of its glass is consistent with an origin in the Islamic territories of the Middle East.¹⁵ As for the monochrome drawn-glass beads, which are similar to the ones found at Pondok, they are known as Indo-Pacific beads, and suggest an origin in South Asia or Southeast Asia (Francis 2002:19).

With most of the beads and foreign ceramics having been recovered in the upper soil levels, the site could be older still. This conclusion is suggested by conventional carbon dating of a charcoal sample taken from the ash layer in Area A, which provided a date of 970 ± 140 BP (1950).¹⁶ It is further supported by optical stimulated luminescence (OSL) dating of two potsherds taken from Area B, indicating that the pots were last used around 1200 AD.¹⁷ As a result, the context of the *batu larung* of Renah Kemumu can be considered roughly contemporaneous with the megalith in Pondok.

The excavation in Renah Kemumu

The second excavation focused on a number of large earthenware jars buried in the ground in the middle of the village of Renah Kemumu. According to local informants, these jars only became visible within the past several years on account of soil erosion. During an initial examination of the jars in April 2002, eroded rims of about 20 jars were easily discernible on the surface (Bonatz

¹⁵ While many early beads have actual gold foil between layers of colourless glass, similar-appearing beads were also made by placing silver foil between layers of amber-coloured glass. Both types of beads were made as early as the last century BC or the first century AD near Bara in Pakistan (Dussubieux and Gratuze 2003:319). The scanning and analysis of our bead samples were conducted by J. Lankton with an electron microscope using energy dispersive spectrometry (SEM-EDS).

¹⁶ The radiocarbon analysis of this and all subsequently mentioned carbon samples was conducted by the Radiocarbon Dating Laboratory at the Geological Research and Development Centre in Bandung, Indonesia.

¹⁷ The analysis of the potsherd samples was conducted by C. Goedicke of the Rathgen Laboratory at the Staatliche Museen in Berlin, using the single grain OSL system. The dates provided are as follows: BBL05-2-4 = 1150 ± 110 AD and BBL05-9-7 = 1200 ± 100 AD.

2003:142-3, fig. 11). During our research in 2005, a total of 35 jars were mapped. These jars ranged from 0.60-1.20 m in diameter. It is highly likely that other jars are located under the houses or next to the rice barns in the rice fields.

From the beginning, it was assumed that the jars formed a large burial complex which might be related to ancient hill sites like Bukit Batu Larung. To test this assumption, as well as to clarify the context and content of the jars, one area (9 x 4.5 m) in the centre of the village was selected for detailed investigation. In the southern portion of the area, obsidian and many potsherds were discovered under the surface. The pottery mainly came from cooking pots, one of which was fully documented, being quite well preserved in situ (Fig. 9). Our discovery of grinding stones and the tusk of a wild pig fed our growing suspicion that food had been prepared and consumed at this location. This evidence does not necessarily contradict our assumption that the entire area was a burial ground, since funerary practices and ancestral cults are commonly associated with eating and feasting.

The terrain around the three jars in the northern part of the area was lowered by 0.60 m, while leaving enough earth around the jars in order to give them support (Fig. 10). A cross-section was then made of the first jar in order to preserve the contours of the jar and its infill. The profile shows that the jar is not round, but rather ovoid in shape, measuring 1.05 x 0.95 m at the upper edge. Most of the rim sherds had fallen into the interior of the jar prior to excavation (for example, Fig. 11). In between and underneath these sherd fragments, sherds from two other smaller pots were found. These pots show an out-leaning rim, a typical feature of pots made for storing food. These smaller pots may have served as funerary gifts. No other objects were recovered from inside the jar, and human bones, which would have helped to confirm our thesis of a jar burial, were not found. The absence of bones, however, is not surprising given that the soils of the region are acidic, meaning low in calcium, so that all bone material would have quickly decayed.¹⁸

Following the examination of the first jar, the second and third jars were also excavated. The second jar was relatively small, measuring 0.60 m in diameter, and embedded close to the surface. This may explain why no contents were found. Meanwhile, the third jar was excavated from all sides in order to examine the complete pot from the outside. The ovoid shape of the pot was striking, even taking into account that the outside could have been deformed as result of earth movements. The interior of the jar also contained sherds of its rim, which had fallen into it, and fragments of smaller pots. This was similar to the situation found in the first jar. Further north of the area, one additional jar was excavated (Fig. 11). This was the largest jar of the village, measuring 1.20 x 1.05 m at its preserved rim. Besides the rim sherds

¹⁸ In order to trace possible human residues, soil samples from the fill of the jars were given for analysis to the archaeometric laboratory of the Free University of Berlin.

and parts of the body, which had fallen into it, very few fragments of other smaller wares were found.

Even without conclusive evidence that the jars served as containers for bodily remains, this interpretation is supported by a comparison with other prehistoric burial sites on Sumatra. Jar burials are known from a number of neighbouring regions including Padang Sepan and Pasar Tengah in Bengkulu Province (Astuti 2004; Indriastuti 2004:13), Lebak Bandung in Jambi Province (*Laporan* 1996b, 1999), and Muara Betung and Muara Payang in the Lahat area of South Sumatra Province (Purwanti 1997; Indriastuti 2003:5). The type of jar used for burial and the layout of the burial ground itself at Muara Betung, Muara Payang, and Lebak Bandung are remarkably similar to Renah Kemumu (see especially Purwanti 1997: fig. 11; Indriastuti 2003: fig. 4; *Laporan* 1999: figs. 3-5). Glass beads and iron knives, found inside the jars at Lebak Bandung (*Laporan* 1996b: figs. 13, 18, 1999: figs. 7-9), are comparable to the objects excavated at Pondok and Bukit Batu Larung. The absence of such 'luxury goods' in the burial jars of Renah Kemumu, however, may indicate a socially less stratified, maybe even egalitarian community, though the variation in size of the jars themselves could reflect status distinctions.

While no absolute dates are given for the above-mentioned Sumatran lowland sites,¹⁹ the age of the jar complex in Renah Kemumu can be determined with more certainty. Conventional carbon dating of a charcoal sample taken from the fill of the third jar yielded a noncalibrated date of 810±120 BP (1950). This date coincides closely with that given for the sample analysed from Bukit Batu Larung. In addition, OSL measurement of one potsherd taken from the body of the first jar date this piece to 850±110 BP. Sufficient evidence exists, therefore, to conclude that the burial ground at Renah Kemumu was used around 1200 AD and is roughly contemporary to the megalithic site on Bukit Batu Larung.

The pottery of Bukit Batu Larung and Renah Kemumu

Before moving on to a discussion of the megaliths, several brief comments are worth making about the pottery found at the Bukit Batu Larung and Renah Kemumu sites. First, there is a remarkable similarity between the earthenware found at the two locations in terms of materials and form. Regarding materials, all of the pots are made from iron-rich clay of volcanic origin. This clay contains inclusions of volcanic glass and pumice, which measure up to 1 mm in diameter, resulting in pottery with a very coarse appearance.²⁰ The

¹⁹ Muara Payang, however, is described as a megalithic site due to the existence of some menhir-like stone monuments and dolmens. These megaliths are comparable to those in the Pasemah region (Indriastuti 2003:4-6, figs. 7-10).

²⁰ For the results of an archaeometric analysis of some potsherd samples from Pondok and Sungai Hangat, which are similar in texture to the Serampas pottery, see Bonatz 2006:316.

actual colour of the pottery varies from orange to dark red-brown, as a result of different firing conditions. The pottery found at the two sites is also quite similar in terms of form, although the variety of forms found at the Bukit Batu Larung settlement site was, not surprisingly, much wider than that at the Renah Kemumu burial site. The most common pottery is simple bowls and ovoid jugs with an overlapping rim, which were likely used for either cooking or storing. Most pottery is undecorated, although some pieces have cord-marked impressions, applications, or incisions (Bonatz 2005: fig. 9).

Second, the pottery so far documented for the Serampas region shares many features with that from Kerinci in terms of material, form, and decoration. One common and very distinctive form of pottery from Serampas, for example, is cooking pot lids with high knobbed handles which have also been documented at Sungai Hangat and Pondok (Van der Hoop 1940: plates 81, 84; Bonatz 2004: fig. 12). The pottery assemblages from the two regions, however, are not identical. At the Sungai Hangat site, for example, we excavated a bowl with a high cylindrical foot that was hard-fired and polished (Bonatz 2004: figs. 6-7). This type of bowl, which has so far not been found in Serampas, apparently belongs to a later stage in the pottery-making tradition.

Third, regarding the age of this pottery, OSL measurements of potsherd samples taken from the Renah Kemumu site indicate that the pots date from around 1200 AD. This date is in perfect accordance with the dates obtained from carbon dating of charcoal samples taken from both Serampas sites. As such, there is strong evidence for believing that the main settlement activity took place here around that time. While a few fragments of Chinese porcelain from later periods were found at the Bukit Batu Larung site, they were located near the surface and point to a continuation of settlement activities.

In future investigations, we will continue developing a chronological sequence of pottery forms and styles found in Serampas and adjacent regions by drawing upon the Chinese sherds, to which absolute dates can be given, and conducting laboratory analyses. With additional evidence, it may become possible to trace this pottery-making tradition back to its historical origin, providing us with one of the main clues for fixing the beginning of sedentarization in the Jambi highlands.

The megaliths

Europeans first reported the existence of megaliths in highland Jambi in the early 1920s. Witkamp (1922) described three megaliths located near the villages of Lempur, Lolo Kecil, and Muak in Kerinci. Adam (1922) mentioned a total of five megaliths in Sungai Tenang and Pratin Tuo. Finally, De Bont (1922) gave a detailed account of the megaliths at Dusun Tuo and Tanjung Putih, but also mentioned the existence of ten others in the region. While

others have written about highland Jambi megaliths since then, a comprehensive, comparative analysis was needed.

As such, the Highland Jambi Project initiated a survey of the region in attempts to relocate all the previously documented megaliths as well as to record newly discovered ones. To date, we have examined a total of 20 megaliths: eight in Kerinci, three in Serampas, six in Pratin Tuo, and three in Sungai Tenang (Map I). If reports from the early twentieth century are correct, there may be a significant number of other megaliths out there awaiting documentation. Those megaliths may come to light in the near future as extensive forest clearance for agriculture reopens areas that had formerly been inhabited. A complete accounting of the megaliths may not be possible, however, since some have been destroyed by local villagers looking for ancestral gold – a fate which local informants tell us recently befell the megalith of Renah Luas – and others will remain buried within the Kerinci Seblat National Park.

Megalith location and orientation

Of all the megaliths so far documented, the vast majority are located on elevated plateaus, hilltops or slopes. The only exceptions are the megaliths at Lempur Mudik, Lolo Kecil, and Pulau Sangkar, all of which have valley locations in the Kerinci region. The reason for this variation is not clear.

All the megaliths lie horizontally on the ground, except for one in Dusun Gedang, which was recently placed in a vertical position by a road-building crew. Given that reliefs are often depicted on the ends of the stones, the original position of the megaliths is undoubtedly horizontal, contrary to the opinion of former observers who believed that they were fallen menhirs.

Nearly all of the megaliths are oriented towards the most prominent hilltop or mountain in their immediate vicinity. Focal points of the alignment of the megaliths in Kerinci are Mount Kerinci and Mount Raya; for those in Serampas, it is Mount Garakah and Mount Sumbing, while for Pratin Tuo, the landmarks are Mount Hulu Nilo, and Mount Masurai. The situation is more ambiguous for the megaliths at Dusun Gedang and Lubuk Mantilin, where the context of the megaliths has been seriously disturbed. It can be assumed, however, that prominent topographic features in the area, like Mount Masurai and Bungkuk Hill, played an important role in the orientation of these stones as well.

The megaliths appear to have been established in settlement contexts, a conclusion reached on the basis of excavations conducted near the megaliths at Pondok, Renah Kemumu, Muak, and Benik (Prasetyo et al. 1994: figs. on pp. 37-8; *Laporan* 1995a, 1995b). Orientation of the former villages, like the megalith, may have been to the mountains, as appears to be the case in Pondok.²¹

21 In contrast Znoj (2001:383) assumes that the megaliths and the villages were placed along an upriver-downriver axis.

Megalith typology

On the basis of their form and iconography two major types of megaliths can be distinguished. The first group consists of a series of ten conical megaliths, whose base reliefs tend to be decorated with a large repertoire of motifs. The second is a group of seven cylindrical megaliths, some of which are marked by human images that are rendered in full relief. Finally, a small group of three megaliths fit in neither category.

Among the first group are megaliths located in Pondok, Kumun Mudik, and Lolo Gedang. The coherence of this subset of three megaliths is immediately apparent. They are relatively small, ranging from 2.05 to 2.32 m in length and 0.55 to 0.77 m in width, conical in shape, and have smooth surfaces, indicating that these stones may have been retrieved from local river beds. The upper surface and one or both ends are carved in low relief with the iconic repertoire consisting of an intricate mixture of vegetal, geometrical, and anthropomorphic elements.

The motifs on the megalith at Pondok (Fig. 1), for example, show a clear rhythmical order, along both horizontal and vertical axes. The upper surface is clearly divided into three horizontal registers, which are further emphasized by two baselines. On the upper surface, a front-facing figure with upraised arms is repeated three times. The lower limbs form a concave curve relative to the vertical body, indicating a bent position. Through a plane rotation, the central figure lies head to head with the figure on its right, and leg to leg with the one on its left. A disc is found between the legs of the two figures. The two sides of the megalith are decorated with three matching sets of concentric circles. These circles reappear on both ends of the megalith, with the circle on the larger end being elevated on a wavy line. The stylization of the motifs and the balanced arrangement demonstrate a convincing degree of abstraction.

These same design elements recur on the other two megaliths of this subset. The megalith located in the vicinity of Kumun Mudik (Fig. 12) displays three circles and lance-shapes which include a triangle on the upper surface. On both sides of the megalith, as well as on the larger end, the well-known schematic human images are depicted. A *horror vacui*, or fear of empty space, might explain the richness of supplementary fillings like ovals, wavy lines, or single leaves, which create a decorative and vibrant quality that lacks the solid geometry of the Pondok example. Meanwhile, the megalith located on a slope close to Lolo Gedang village shows an interwoven surface treatment (Fig. 13). Circles decorate both ends, as well as the lower section of both sides. A significant change in the lay-out is marked by two elements placed vertically to the axis of the stone: a wavy line and the two sets of front-facing human figures put antithetically head to head. As such, the strict axiality is given up

for what seems more appropriate to the medium, resulting in the rounded conical shape of the stone being fully covered by a coherent design area.

Classified with the conical megaliths are also six stones of larger size, which have no decoration or significantly less. The megalith at Lempur Mudik (3.40×0.95 m)²² in Kerinci appears to be unadorned except for a nine-petaled flower surrounded by half-circles on the large end of the stone.²³ This floral decor is typical of Kerinci and is not found in the eastern regions. *Batu larung jantan*, the 'male' megalith (2.45×0.77 m), located near Dusun Gedang II village in Sungai Tenang, is characterized by a series of concentric circles on its larger end.²⁴ Meanwhile, near Dusun Tuo village are four megaliths of this type: one (2.20×1 m) at Renah Luas, one (3.50×1.15 m) at Pematang Sungai Nilo, and two (3.10×0.85 m and 3.50×0.75 m respectively), located only 30 metres apart, at Pematang Rimbo Tembang. All of these megaliths are unadorned except for the second one at Pematang Rimbo Tembang, which is marked by an 'eye-shaped' relief on its larger end and small indiscernible patterns on the surface.

Finally, the megalith at Benik in Kerinci (Fig. 14), which is the last member of the first group, is roughly conical in shape (3.23×0.90 m), but stylistically seems to belong to the second group of cylindrical stones. Decorating the larger end of the megalith is a standing figure holding a stick-like object (a weapon or mace) above his head. The iconography, including the earrings (or earlobes?) and the headdress (probably hair piled up in coils) with long curls hanging over the shoulder, might represent the guardian Dvarapala. The complex visual lexicon, including the facial expression and the decorative handling of the pleated skirt, are similar to the Tanjung Kasri stone (discussed below, Figs. 18-19). Meanwhile, decorating the smaller end of the megalith is a half-damaged²⁵ figure (Fig. 15). This image is derived from the art of dance, with both legs bent and turned sideways so that the right arm nearly touches the right knee. Not only the iconography but also the more realistic and observant delineation of both figures suggest influence from an Indic source.²⁶

The second major group of megaliths, which consists of seven cylindrical stones depicting human images that are rendered in full relief, are primarily

²² In the following, the length and maximal width of the megaliths are given in brackets.

²³ The faceted upper surface, a hole, and a deep cavity appear to be secondary modifications, though they already existed in 1922 (Witkamp 1922:346). Creation of the hole and cavity, which are also found on the megalith of Pematang Sungai Nilo, might be interpreted as preparation for splitting the stone.

²⁴ It was moved and turned 90 degrees due to road construction in 1997.

²⁵ A photo taken in 1973, before the damage occurred, clearly shows that the left arm was raised while the right one rested on the leg (Watson 1979: fig. 1).

²⁶ Following Adam (1922:41), Bronson compares the figures on the megalith to Hindu prototypes (referred to in Watson 1979:42). A similar stylistic evaluation was given by H.I.R. Hinzler and R. Schefold (personal communication) and Bakels (2000:62).

found in the southern regions of Pratin Tuo and Serampas. They are large in size, ranging up to 4.55 m in length and up to 1.2 m in width. The upper surfaces are smoothly rounded, the two drum-like ends are clear-cut, and the underside is flattened. The size and shape of the worked stones suggest that they were excised from surrounding rock, smoothed, and carved before they were transported to their final destination.²⁷

While the cylindrical megaliths tend to be larger in size than the conical ones, they share the full repertoire of motifs. Three examples illustrate this point. First, the Renah Kemumu megalith shows on its larger end a human figure which seems to be kneeling with both hands and knees on the ground (Fig. 6). During the 2005 excavation, however, it became obvious that at some point in the past the stone had been turned 90 degrees onto its side. We can now interpret the figure as standing upright with bent legs and raised forearms, in front of which a small disc is depicted. The organic silhouette of the slender figure in side-view is well captured. This is exactly the same position which, if viewed from the front, generates the schematic anthropomorphic motif found on the megaliths in Pondok, Kumun Mudikuk, Lolo Gedang, Lubuk Mantilin, and Dusun Tuo.

Second, the cylindrical megalith at Dusun Tuo (3.37 x 0.65 m) reveals both the wide repertoire of floral, geometrical, and anthropomorphic motifs (Fig. 15) commonly depicted on the small conical megaliths in Kerinci, as well as a face shown in full relief, which is more common on the cylindrical megaliths of the southern region. The megalith is skilfully carved with a strict horizontal-vertical geometry, hieratic repetition, and highly stylized representation of the common motifs in low relief. On top of the megalith is depicted a basic pattern of three human images with raised arms. Between the legs of the two centremost figures is a 0.19 m deep rectangular cavity (0.35 x 0.27 m) with a deeper round hole in its centre, which possibly served as a foundation hole. The long sides of the megalith display five sets of concentric circles separated by teardrop patterns. The smaller end depicts a face in full relief and is encircled by an aureole originating from a circle below the neck. The complicated overall organization of the motifs, the different modes of modelling, creating both a pictorial and sculptural effect, as well as the megalith's impressive size, point to advanced artistic skill.

Third, in Serampas three parts of a cylindrical stone (approximately 2.30 x 0.80 m) were recently discovered outside of Lubuk Mantilin village (Fig. 16). The megalith is decorated with rather schematic human faces on the two ends, which were carved in high relief and resemble some found on other

²⁷ The working process becomes clear when looking at the roughly cylindrical, though unfinished, stone of Pulau Sangkar (3.87 x 1 m), which is situated in front of the quarry along the Batang Hari River. The excavations at Pondok and Renah Kemumu did not reveal any evidence of masonry waste close to the megalith.

cylindrical megaliths. The stone also depicts circles and human figures with raised arms and bent legs on the upper sides which are similar to those found on the conical megalith at Pondok.

Most of the conical megaliths are carved with human images, portrayed in full relief on at least one end.²⁸ Two examples are worth discussing in some detail. The first is the megalith at Nilodingin in Pratin Tuo (4.33 x 0.83 m), which depicts on its smaller end a human figure in a bent position with bent, upraised arms (Fig. 17). The rigid frontality of the upper part of the body contrasts sharply with the legs, which are turned sideways. This posture is a variation of the 'dancing figure' found on the Benik megalith (Fig. 14), although the body treatment, with its elongated limbs, seems more similar stylistically to the megalith at Renah Kemumu (Fig. 6).

The second example is the megalith found at an abandoned village site several kilometres from the village of Tanjung Kasri. This megalith, which also appears to have been turned onto its side at some point in the past, is the largest in the region and is decorated on both ends. On the larger end is a figure upright with both legs evenly turned sideways (Fig. 18). This individual is holding a triangular object (maybe a water jug or shield?) in the left hand while holding the right arm upright. The figure on the smaller end of the megalith, meanwhile, assumes a highly dynamic pose (Fig. 19): the right leg is stretched to the side, while the left leg is bent. Elevated above the head, he appears to be holding a shield in his right hand and a sword in his left. Much about this image is similar to the figures found on the Benik stone (Fig. 14), including the *alidha* leg posture, the hair curls (earrings or long earlobes?), and the pleated cloth bound to his hips. It is also possible that this motif was drawn from an artistic prototype of Indic origin.

Finally, a third group of three undecorated megaliths can be described as neither cylindrical nor conical. These atypical megaliths include a large-grained stone at Lolo Kecil (4.50 x 0.58 m) in Kerinci, a small sausage-shaped megalith (1.54 x 0.53 m) at Pematang Pauh in Sungai Tenang,²⁹ and the so-called female *batu larung betina* (1.94 x 1.30 m) at Dusun Gedang in Sungai Tenang, which has breast-like protrusions.³⁰

Regarding the different designs, Znoj (2001:299, 305) suggests that the stylistic difference can be taken as a chronological sequence. He assumes that the more symmetrical, and therefore more 'archaic', images like those found in Dusun Tuo, Lempur, Lolo Kecil, and Muak were created prior to

²⁸ There is only one exception: the roughly cylindrical megalith of Muak (4.20 x 0.63 m), which lies in the Kerinci area and shows elliptical circles on one end.

²⁹ At a right angle lies a small worked stone with two flat sides (1.38 x 0.35 m) which we did not include in the megalithic complex of rounded stones.

³⁰ The latter was placed in an upright position in 1993. A photo taken in 1988 shows it lying on the ground (Znoj 2001: plate 14).

the advent of Indic influence in the region, while those with asymmetrical designs, such as those in Tanjung Kasri and Nilo Dingin, came afterwards. The extent of archaeological evidence, however, is currently too limited to justify making a distinction between an early and a late style. Caution is further warranted since one can imagine different masonry workshops drawing upon an array of motifs such that the distinguishable types would really just be variations on a common theme. That said, it is important to acknowledge that the decorations on the megaliths at Benik and Tanjung Kasri do seem to exhibit a new way of rendering the human image, which might need to be accounted for in terms of outside influence.

Megalith names and legends

The megaliths in the region are known locally by a number of different names. In Kerinci, the megaliths are referred to as *batu patah*³¹ (broken stone), *batu meriam* (stone cannon), or *batu gong* (gong stone). While the first name, which is used for the megalith in Muak, simply refers to the fact that the megalith is broken in two, the second name, which applies to the megalith in Lempur, refers to a local legend about a battle between ancestral spirits inhabiting Mount Batuah, a small peak outside of Lempur, and Mount Kerinci. In this story, the ancestors got into a fight and started to shoot large rocks at each other, some of which hit Mount Kerinci, giving rise to the distinctive pyramid-shaped section of the crater rim (as seen from Kerinci Valley). In some versions, the megalith is a cannon, whereas in others it is a cannon shell that did not reach its mark (Witkamp 1922:346; Schnitger 1989:133; Bakels 2000:102). Regardless of the details, this story points to the strong connection between the megalith and these particular mountains.

The third name used in Kerinci, *batu gong*, could be interpreted as a stone which produces a sound,³² but in this case it alludes to the most prominent motif on the megaliths, the concentric circles. These motifs are found on megaliths in all of the regions and vary in number from three to five, depending on the size of the megalith. Although this design element is ubiquitous in the Pacific region, where it is considered as a symbol of the sun, a totem, or a mere magical design, the interpretation of the motif in highland Jambi as representing gongs, as Schnitger (1989:134-5) and others have proposed, is likely correct. Indeed, an eighteenth-century text from Kerinci indicates that gongs and other musical instruments were used in processions (Watson 1985:162) at that time, a practice that continues today, for example during the *kenduri sko*, a village-wide celebration held in Lempur, Lolo, and some of

³¹ This name is also known among the people of South Sumatra, who believe that the stones served as building materials (Barendregt 2005:307).

³² Similar forms of stone as a kind of musical instrument exist in other parts of Sumatra and Nias (Barendregt 2005:296 note 22, 307).

the older villages of southern and central Kerinci. This motif is common in the region and is carved into the boards of a house in Sungai Tenang (Znoj 2001:299, note 50, figures on p. 391, fig. 17, plate 18).

In Serampas, Sungai Tenang, and Pratin Tuo, the megaliths are locally called *batu galeh* or *batu larung* (also spelled *larong*). The meaning of these names is ambiguous. According to one informant, *galeh* in the first name may refer to the fact that the stone was carried (as on the shoulders), although there was no consensus on this interpretation.³³ Meanwhile, the word *larung* can be translated in three ways. In some of the local dialects, *larung* means 'hollow', as in the hollow of a tree. While these megaliths are certainly not hollow, local historians have suggested that *larung* refers to the square cavity located on the top of a number of megaliths. Etymologically, the name might also be derived from an (old) Javanese word for a sacrifice that is placed on a river and left to float down to the ocean. Finally, in Indonesian, this word has come to mean a bottomless coffin, although this meaning of the word does not seem to be recognized in the region.

Two of the megaliths in Dusun Gedang are more specifically referred to as *batu larung jantan* and *batu larung betina*, with *jantan* and *betina* meaning 'male' and 'female' respectively. In one legend about the origin of these megaliths in the Dusun Gedang area, Si Pahit Lidah, a legendary figure known throughout southern and central Sumatra for his ability to turn people into stone, is said to have punished a couple when they offended a sexual taboo by the man marrying a woman from the same village (Znoj 2001:227). This version can be interpreted as emphasizing the importance of exogamous marriage in the past. In another version of the same story, the couple were turned to stone for having premarital sex with one another, emphasizing the importance of upholding sexual norms (Neidel 2006:404).

Interpretations of age and function

Following the initial documentation of the megaliths, the age and function of the stones quickly emerged as a major topic of debate, with individual scholars expressing widely divergent opinions. On the one hand, Witkamp (1922:349), who described the megaliths of Lempur Mudik, Lolo Kecil, and Muak as cannon-shaped, considered them to be less than four hundred years, based on his knowledge of when that technology was introduced into the region. Van der Hoop and Van Heekeren, on the other hand, classified the megaliths as fallen menhirs and interpreted them as representatives of a 'megalithic culture' from the Bronze Age (Van der Hoop 1940:203-4; Van Heekeren 1958:12-99). Schnitger (1998:133, 135), who believed that the mega-

³³ According to Wilkinson (1932) *galeh* means either 'an obsolete Javanese musical instrument' or 'the core or hard portion of a tree trunk'. Both meanings share affinities with other names, but do not appear to be related to the local meaning of the word.

liths are related to graves,³⁴ proposed that they had been created around the beginning of the Christian era, following the diffusionist theory of those days and assuming a direct link to China. An early dating of the megaliths is still supported by Bakels (2000:62) and Indonesian writers (Dinas Pendidikan 2001:82, 84-6; Djakfar and Idris 2001:82-107; Setyorini 2002:525).

Since the 1970s, however, the evolutionary theory, which posits similar development sequences on the basis of influences from outside and which supports the early dates, has been widely questioned by Western scholars.³⁵ As a result, the term 'megalithic' itself has been problematized, at least in so far as it is considered to represent a certain stage of development and is treated as a homogeneous block of culture from a Western standpoint (Glover et al. 1979; Barbier 1998:23). With the breakdown of the evolutionary perspective, scholars have advanced different approaches for determining the age of the megaliths. Most recently, Watson and Znoj have advanced two new interpretations. Watson (1979:42) suggests that the megaliths were created after the tenth century. Meanwhile, Znoj (2001:302) hypothesizes that the megaliths are only three hundred years old and mark the founding villages of federations that controlled the trade routes between the highlands and the lowland markets. To his way of thinking, the federations were united through an ancestor's cult, with the chain of human images on the megaliths symbolizing continuity between the generations.

While the age of the megaliths was discussed above in the context of our archaeological finds, Znoj's iconic interpretation could still be valid. Reaching any definitive conclusion, however, is difficult. While it is clear that the megaliths fulfilled a ritual-symbolic function and carried a certain prestige, schematic figures with bent legs and raised arms are widespread in the visual arts of the Pacific region and allow many interpretations, including the possibility that they represent a dancer's, worshipper's, or warrior's pose. The symbolic importance of the images could also be to ward off evil. What makes the interpretation so difficult is the fact that the cultural importance of the megalithic sites has been in decline since at least the eighteenth century.

One major factor contributing to this decline would appear to be the spread of Islam. A royal edict from the Sultan of Jambi to the Depati of Kerinci in 1776, for example, forbids 'paying homage to stone and wooden images of pagan gods'.³⁶ Similar passages were also included in three letters to the Dipati of Dusun Baru (Sungai Penuh) in 1778 which also proscribed the

³⁴ Schnitger mentions four megaliths in Kerinci and four in Pratin Tuo. He describes the first group as having a phallic shape and the second a pillar shape. A sepulchral context of the megaliths, also proposed by Adam (1922:41), cannot be proven.

³⁵ Among others, see Christie 1979; Glover, Bronson and Bayard 1979:254; Miksic 2004:193-5.

³⁶ The Tambo Kerinci Hs. 230 (cited by Voorhoeve 1970:398) was written in 1776 (A1190). The dating was provided by U. Kozok (personal communication).

playing of gongs and other musical instruments in funerary rituals.³⁷ While it is not clear what immediate impact those proscriptions had, especially considering that ancestral worship remains prevalent in the region today, local remembrance of the original purpose of the megaliths has gradually been lost. As a result, many unanswered questions remain and we can only speculate about the original function of the megaliths, their makers, the meaning of their motifs, and the reason for the coherence in style on the one hand and stylistic differences on the other.

Conclusions

Our archaeological investigations in the highlands of Jambi have revealed much evidence to suggest the existence of a cluster of settlements that share several cultural features. Most prominent are certainly the megaliths themselves, but even in their absence, the similarity in other aspects of the material culture, including local pottery and imported Chinese ceramics, glass beads, and metal objects, would point to the same conclusion. Further supporting this perspective is the fact that most of this material appears within contexts that date from between the eleventh and thirteenth centuries AD, and it can be assumed that the megaliths fall within that period as well, even though we cannot determine how long they remained in use thereafter.

Placing our research findings within a broader historical and geographical context, most notable is the fact that our research sites in highland Jambi coincide with the period of Srivijaya's hegemony in the eastern Sumatran lowlands. Since at least the seventh century, Srivijaya had been engaged in international maritime trade with the Arab world, India, and China, profiting from natural resources obtained from the Sumatran highlands (Wheatley 1961:32). Among commodities in high demand by the Chinese were beeswax, honey, hornbill-keratin, rhinoceros horn, ivory, *gaharu* or 'sinkwood' (*Aquilaria agalloca*), gold, and pine resin from *Pinus sumatranan*.³⁸ While the capital of Srivijaya was originally in Palembang, historical documents indicate that in the eleventh century the Melayu polity at the Batang Hari took over the political leadership. From the new political centre, the quickest access to highland resources would have been via the Batang Merangin and the Batang Tembesi into the Jambi highlands, such as the regions of Kerinci, Sungai Tenang, and Serampas. As such, this political shift probably enhanced economic activities and encouraged the extension of trade networks into these highland areas.

³⁷ These edicts might not be referring to megalithic remains but may be related to the veneration of trees to which wooden and stone objects were attached. This is the opinion of Voorhoeve (1970:387) and U. Kozok (personal communication).

³⁸ McKinnon 1992:134-5. These items are listed among the gifts presented by the ruler of Jambi to the Chinese imperial court in 1156-57 and 1178 (Wong 1979:82-3).

Other archaeological research into this period has focused on the major religious centre at Muara Jambi, which was associated with the ancient toponym Melayu, as well as flourishing ports such as Muara Kumpoh, Kota Kandis, and Sitihawa which grew up along the Batang Hari and the coast east of Jambi (McKinnon 1984; Atmodjo 1994). Excavations at these sites have yielded highly valuable materials like gold jewellery, carnelian and glass beads, and large quantities of Song and Yuan ceramic wares dating from the twelfth to the fourteenth centuries.

The existence and nature of an early river-based trade network connecting the lowlands with the highlands in Srivijayan times have already been widely discussed (Bronson 1977; Wolters 1979; Miksic 1985; Manguin 2000). One question that remains unresolved, however, is how the rulers of Jambi managed to organize and control the trade with the highlands. Taking the archaeological record into account, we can clearly say that no evidence exists which would indicate direct lowland political control over the region.³⁹ Neither the structure of the settlements nor the material culture found within the settlements show affinities to any local lowland cultural characteristics. Rather, what the excavations have yielded are objects related to exchange, such as the glass beads and the Chinese ceramic wares of the Song Dynasty. Both are typical items that circulated in Srivijayan trade; being far from their place of origin, they must have had a special 'luxurious' appeal to highland peoples. Thus, the hypothesis of a politically independent highland community seems to be confirmed.

For later historical periods, Andaya (1993:74-110) and Znoj (2001:141-55) have argued that economic links were maintained primarily through volition. The highlanders, being located on the spine of Sumatra, had access via various footpaths to markets both in the east and on the west coast, allowing them to take advantage of the different economic opportunities. Because the sultan lacked a standing army or other effective means of coercion, a system developed by which he and his entrepreneurs bore the entire risk of commerce, by sending goods desired by highlanders in the hopes of their reciprocating at a later date. This left the highlanders in a relatively free position to engage in exchange whenever they desired. It is reasonable to guess that similar conditions existed in the Srivijaya-Melayu period as well.

Another question which arises concerns the impact of such exchange activities on the cultural development of highland peoples. One could speculate that expanding trade relations with Srivijaya affected social and economic structures both within and between highland villages. The growing demand for tradable commodities, for example, might have prompted the formation

³⁹ Contrary to the Minangkabau region, for example, where Adityawarman installed the rule of the Srivijaya Kingdom for a short period in the fourteenth century. Evidence for Adityawarman's reign such as inscriptions, sculptures, and brick building remains are recorded from different places in this region (for instance, Miksic 1987:20-1).

of village alliances to exercise control over access to natural resources and to trading routes. In this scenario, the influx of wealth and prestige goods may have enforced the power of individuals or groups who became main actors in this enterprise. The main actors would have been those who could mobilize the huge amount of manpower needed to create and move the megaliths and who could bear the cost of elaborate rituals, which have been documented in other stone-erecting communities such as on Sumba or Nias (Hoskins 1986; Bonatz 2002).

In his recent study on the politics of trade in highland Jambi, Znoj argues that trade between the highlands and the lowlands was facilitated by competing village federations, which were linked through male exogamy and maintained through charismatic authority of village shamans. Znoj (2001:303) links the megaliths to these federations by stressing the fact that most megalithic sites lay close to old trade routes, and he assumes that the same settlement places can be identified as the 'origin' villages of federations. He has in mind, however, a historical situation not long before the nineteenth century, while our new discoveries put the beginning of the 'megalithic tradition' several centuries earlier.

The present archaeological data are currently too meagre to draw any solid conclusion about the social and political structure of settlement sites in the Jambi highland regions. Znoj could be correct that the formation of economically orientated village federations went hand in hand with the erection of the first megaliths, albeit at an earlier period of time. If so, the stones could be considered as monuments enhancing the role of the leading village within a federation. Alternatively, one could argue in favour of a theory linking the megaliths to the ritual practices of a wealthy family, a village, or a 'big man' within such a village. Neither explanation excludes the possibility of an ancestral ritual purpose, since ancestors could be drawn upon to develop the identity of a single village unit or that of an entire village federation.

While the socio-political dynamics underlying the creation of the megaliths remains a mystery, the distribution of megaliths in Kerinci, Serampas, Sungai Tenang, and Pratin Tuo, and all the elements associated with this distribution, provide firm evidence for the formation of a dense settlement structure in the Jambi highlands by at least the eleventh century. This evidence lends support to Reid's hypothesis (1996) that the highlands of Sumatra were well populated compared to lowland regions during the pre-colonial period, a situation that may have been obfuscated by historians' overwhelming focus on the emergence of centralized states in the eastern lowlands resulting from their engagement with inter-regional trade.

The question of what happened in highland Jambi before this period, however, remains a mystery. Two palynological studies conducted in Kerinci suggest that forest clearance for agriculture started around 4000 BP (Morely

1982) or 7000 BP (Flenley and Butler 2001), although these conclusions remain speculative. Meanwhile, the early archaeological evidence from the region remains scarce. The origin of some Han Dynasty (206 BC to 220 AD) vessels assigned to the Kerinci region must be doubted (Bronson 1979:397; Bonatz 2006:310, note 1), while bronze objects, such as the famous bronze flask from Kerinci (Glover 1990:218-20, 224, fig. 1, plate 5; Glover 2004) and a large fragment of a Dong Son drum, are still exceptional finds. Stylistically, the fragment is believed to be part of a Heger I type drum, dating from between the second century BC to the second century AD. The flask might have been produced slightly later. When exactly these artefacts reached the highlands of Jambi, however, is impossible to determine at this time.⁴⁰ The sketchiness of the data from this early period is the main reason why we do not want to speculate about any migration theories concerning the prehistory of the Jambi highlands. Questions such as whether the well-attested 'megalithic' phase was prompted by some form of migration into this region or resulted from endogenous forces in already existing settlement communities can only be addressed when more evidence of early first-millennium occupation becomes available.⁴¹

What happened after this period is also unclear. Settlement activities in the area undoubtedly continued from the time of the megaliths down to modern times. Over the intervening years, major political, economic, and religious shifts have taken place. Most notable are the diffusion of Islam into the region starting in the late seventeenth century (Watson 1985), the escalation of trade contacts with Jambi during the seventeenth and eighteenth centuries (Andaya 1989, 1993), and a period of anti-colonial resistance leading up to direct colonial rule in 1903 (Znoj 2001:157-264). Such dramatic changes can be expected to have affected not only the social structure of existing communities but also the demography and structure of the settlements themselves. While archaeological evidence that could link changes in settlement patterns to one or more of these events is scarce, additional surveys and excavations of the abandoned fortified hill sites in Serampas are planned which may help to fill the gap. The challenges for future research in this region are therefore clear.

⁴⁰ According to A. Calo (personal communication). For the flask Bellwood (1997:283) assigns a first millennium AD date, one which McKinnon (1993:232, note 11) seems to agree with. For the drum Bronson and Wissman (1973:21) suggest a date between 100 BC and 200 AD, which is in accordance with the opinions of Higham (1996) and Wolters (1967:60-1).

⁴¹ It is worth noting that recent research by the Institut de Recherche pour le Développement (IRD) and PUSLIT in the region of Batu Raja near Padang Bindu in southern Sumatra has yielded new important evidence for Neolithic occupation in the first millennium BC (Simanjuntak et al. 2005). Further investigations in regions like Lahat and Pasemah may provide evidence of how the process of neolithization, that is sedentarization, occurred in the highlands.

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