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Mechanisms of appearance and disappearance of Indonesian megaliths

Abstract: The Indonesian megalithic phenomenon is contemporary with the great Hindu-Buddhist kingdoms of Sriwijaya, Majapahit and Malayu. It represents an exceptional cultural heritage, thanks to its reach. Indeed, monuments can be found in the forests, the mountains, the plateaus, and along the coastline. The megalithic sites were built by indigenous groups whose religious beliefs revolved around the cult of the ancestor and of Nature spirits. This shared religious base can be found from Bondowoso (Eastern Java) to Toba (Northern Sumatra), through Sukabumi, Kuningan, Lampung, Pasemah, Jambi and Minangkabau, to name only the most well-studied regions. The resource and service networks developed by the indigenous groups with the Hindu-Buddhist kingdoms gave rise to the acquisition of prestige goods, leading in turn to social competition, an environment particularly favourable to the development of megalithic culture. The emergence of ‘chiefs’ probably preceded the appearance of megaliths, which were built for burying the deceased as well as honouring, commemorating and/or communicating with ancestors. These communities did not use writing; the standing stones (uncarved or carved) marked the territory and served as a way to transmit the memory of mankind from one generation to the next. In Java, Sumatra (central and southern) and Sulawesi (central Lore Lindu), megalithic monuments were no longer built when the Hindu-Buddhist kingdoms lost their power. On the other hand, and following a similar logic, the use of megaliths developed later in the isles of Sumba, Flores, Nias, Northern Sumatra (Toba) and Central Sulawesi (Tanah Toraja) following contacts with European merchants. Despite massive conversions to Catholicism and Protestantism in these areas, the tradition remains alive to this day. These monuments bear witness to a period of exchange and trade that led to the development of complex Indonesian societies, and this chapter aims to shed light on the mechanisms of the emergence and disappearance of the megalithic phenomenon in this region.

Keywords: *Indonesia, Hindu-Buddhist kingdoms, Sriwijaya, Majapahit, Malayu, megalithic phenomenon, emergence, disappearance*

1. Introduction

Recent discoveries of numerous Indonesian megalithic hotspots, dating to the classical or modern period, provides a unique occasion to study a dozen cases of appearance and disappearance of this kind of monumental architecture. The mechanisms that led to the practice of megalithism appear common to all hotspots belonging to the last two major episodes of the megalithic phenomenon. The first of these episodes dates to the beginning of the Christian era and coincides with the onset of the Hindu-Buddhist kingdoms, on the coasts or inlands of Java, Sulawesi, and Sumatra islands. This occupation prompted the appearance of a series of megalithic concentrations within local communities. The second episode is linked to commercial activities and the installation of numerous trading posts during the 10th century in Flores, Sumbawa and Timor, with an increase in activities around the 16th century in Nias, Sumatra, Sulawesi, and Sumba by European, Indian, Malaysian, Vietnamese, Thailanders, and Chinese merchants. This occupation was the starting point for the appearance of a succession of megalithic practices within local communities.

The Hindu-Buddhist kingdoms, just like the European and Asian merchants, represent state systems depending on international trade for power. Within this framework, Indonesia represents a

maritime crossroads, 17,000 islands strong, offering numerous commercial opportunities. The meeting of state powers and the local communities resulted in increased wealth on both sides. For the local communities, which functioned based on a tribal system where kinship defined social relationships in a non-hierarchical manner, the increase in wealth led to a form of social and political competition which favoured the rise of megalithism. It is highly likely that the existence of chiefs within these communities predates the original creation of megalithic monuments to inhumate the dead and honour, commemorate, and/or communicate with ancestors. For these local societies, who did not possess writing, the role of monumental stones was not simply to mark the landscape and transmit the memory of mankind from one generation to the next, but also reflected religious and political aspects. As such, Indonesian megalithism is linked to the ancestor cult and to the socio-economical functioning of societies, in which it played a role in managing intra and intercommunity relationships.

We propose here to present a history of megalithic research in Indonesia, followed by the description of four megalithic concentrations linked to Hindu-Buddhist kingdoms, and three still active hotspots born out of interactions with the first European and Asian merchants (**Fig. 1**). Through this, the diversity of the megalithic phenomenon in this part of the

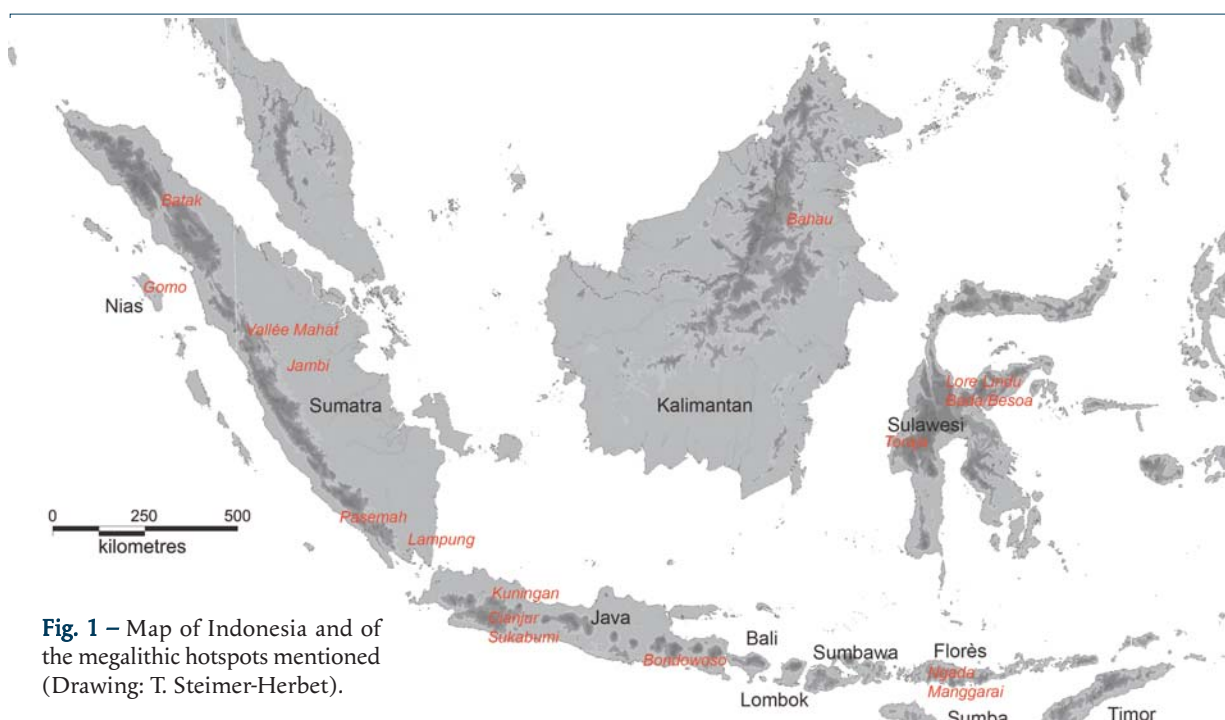


Fig. 1 – Map of Indonesia and of the megalithic hotspots mentioned (Drawing: T. Steimer-Herbet).

world will be explored, in particular the factors that led to its appearance and disappearance.

2. Research history

Most published work on Indonesian megalithism is relatively old and dates to the Dutch colonial period, when several explorers collected an important amount of data concerning archaeological remains in Sumatra (Adam 1922; Bosch 1922; Bie 1932; Hoop 1932; Vonk 1934; Schüller 1936; Schnitger 1938, 1939), in Sulawesi (Perry 1918; Kaudern 1938) and in Java (Steinmetz 1898; Heekeren 1931; Willems 1938; Schnitger 1942; Heine-Geldern 1945). Between 1945 and 1965, Dutch archaeologists led the regional Archaeological Services and informed Indonesians about how to study and preserve their cultural heritage. The 1960s were marked by the discovery of megalithic monuments at Kalimantan by Tom Harrison (1962a-b). North American researchers, financed by the Ford Foundation, conducted research in the central region of Sulawesi, among the Toraja (Crystal 1974a-b; Nooy-Palm 1978, 1988). Their work focused mainly on investigating ancestral religions. In 1975, the creation of the National Research Center for Archaeology (NRCA) allowed Indonesian archaeologists to take ownership of their archaeological heritage, continue research, and publish their work in national journals such as *Skripsi Sarjana Jurusan Arkeologi*, *Berita Penelitian Arkeologi* or *Pertemuan Ilmiah Arkeologi*. Several archaeologists, belonging to local branches of the NRCA called *Balai Arkeologi*, explored the less known provinces of Java and Sumatra, but also the Lesser Sunda Islands. At first, research focused on the Hindu-Buddhist kingdoms, then thought to have been the high point of Indonesian history. Some research teams nonetheless inventoried megalithic sites. European researchers arrived in the 1980s, with Marcel Bonneff publishing an article on the island of Sumba and its megalithic societies (1980). Around twenty years later he was followed by Roger Joussaume, who specialized in the megalithic phenomenon on the Atlantic front in France and Ethiopia (Joussaume 1997, 1999). Harder to reach, and relatively unknown areas, such as the Bada and Besoa valleys in Sulawesi, Jambi at the centre of Sumatra, Nias, and Sumbawa were then explored and a very diverse

megalithism was found, with monuments of various shapes and functions (Harrison 1958; Suzuki 1979; Watson 1979; Sukendar 1980a-b, 1983, 1985a-b, 1997, 2003; Rumbi 1981; Viaro 1984, 2000; Miksic 1986, 1987, 2004; Ziegler 1986; Prasetyo *et al.* 1995a; Ziegler & Viaro 1998; Kusumawati 2002). The country was also thoroughly investigated by historian Jean-Paul Barbier (Barbier 1988, 1998a-b, 2011; Barbier & Newton 1988). Continuing the work of Tom Harrison, and inbetween gold and petrol seekers, the megaliths of the Bahau region in Kalimantan were studied by Bernard Sellato (1992). Three regions were the focus of several excavations and reports by the NRCA, as well as several theses: Bondowoso in Java (Prasetyo 2015), Ngada and Manggarai in Flores (Sudamardi 2014), and Lore Lindu in Sulawesi (Yuniawati 2009).

Megalithic research in Indonesia is made difficult by several factors. The first is physical, linked to the sheer scale and density of the phenomenon. Bagio Prasetyo, archaeologist for the NRCA, inventoried no less than 593 hotspots and thousands of monuments. According to him, 60% of the territory is occupied by megalithism. Due to the insular nature of the country, the megalithic foci are heterogeneous and it is almost impossible to extract a chronotypology from them, something that he nonetheless attempted (2015). The second difficulty is cultural, as it appears that Indonesian researchers have been strongly influenced by the diffusionist theories of the first Dutch archaeologists (Perry 1918; Hoop 1932; Kruyt 1932; Heine-Geldern 1945; Soejono 1969, 1982; Poesponegoro & Notosusanto 1983; Sukendar 1985a-b; Loof 1993; Sutaba 1998; Prasetyo 2006). For these scholars, Indonesia was the theatre of a ballet of migrations from Europe, India, or Japan, within which megalithism was an imported product. Today, the frequent use of radiocarbon dating (Prasetyo 2014: 31) and ethnological work (Viaro 1984; Sudamardi 2014) have demonstrated that these monuments, contrary to the Dutch archaeologist's conclusions, are not from the Neolithic and do not necessarily represent an imported tradition. Finally, the third difficulty is political. Megalithism is a sensitive topic that relates to communities who still practice ancestral religions such as the ancestor cult and animism. The Indonesian government deems these practices archaic, and when an individual registers administratively,

they must choose between the five official religions (Islam, Catholicism, Protestantism, Buddhism, Confucianism, Hinduism). The national politics of Indonesia enforces modernity, and everything related to the ancestor cult, animism and, by consequence, megalithism, is deemed to belong to archaic, prehistoric times (Sudamardi 2014: 3). Given the richness of the phenomenon, research on megalithism and Hindu-Buddhist kingdoms will continue, but sub-actual or current megalithic societies have already started to disappear. Current practicing individuals of this culture are ignored, marginalized or, at best, presented as folklore.

3. Megalithic societies and the Indo-Buddhist kingdoms

3.1 Dolmens, *Pandhusa* and cylindar sarcophagi of the Bondowoso valley (Eastern Java)

In Eastern Java, at the foot of the Kawa Ijen volcano, the megalithic monuments of the Bondowoso valley were relatively well-documented during the Dutch presence at the end of the 19th century. In 1898, Steinmetz was the first to document hundreds of monuments (1898). Heekeren continued this work (1931), and in 1938, Willems published the results of his excavations of the Pakauman monuments (Willems 1938). Fifty years then went by before an Indonesian archaeological team from NRCA conducted new investigations, in 1983, 1985, and 1992 (Suwarno 1992; Karihandi 1994; Prasetyo 1995, 1996, 2000, 2006b, 2008a-b; Prasetyo *et al.* 1995b, 1996; Kusumawati 2002; Suryanto 2004).

The region yielded 47 sites bearing megalithic monuments. Two of these, at Wringin and Grujugan, were excavated by a team led by Bagyo Prasetyo. Their results confirmed those described in Heekeren and Willems's publications, namely that the excavated spaces were indeed funeral chambers. Fragments of Chinese porcelain, glass and terracotta beads, metal bracelets and tools, as well as buffalo horns accompanied the deceased. Two coal fragments sampled in the Dawulan and Doplang dolmens by Bagyo Prasetyo (2014: 31) place the Bondowoso valley dolmens within a chronological period extending from the 6th to the 14th century AD (Bondowoso 840 ± 200 BP; Jember/Doplang 580 ± 100 BP). A sarcophagus bears a Hindu inscription from 1324 Çaka

(1402 AD). These dates are coherent with the nature of the artefacts discovered.

Three kinds of monuments were inventoried. The first is a classical dolmen, with a chamber made of orthostats and a natural stone slab cover (Fig. 2a). The second, locally known as *Pandhusa*, is a rectangular chamber with a cover slab sculpted so



Fig. 2 – Photographs of the megalithic monuments of Bondowoso: a. Grujugan dolmen; b. *Pandhusa* from Grujugan; c. Cylinder-sarcophagi from Nangkaan (Photos: T. Steimer-Herbet).

that its flat surface rests on the chamber's walls, while its upper part is shaped into a kind of half-cylinder (**Fig. 2b**). The third is called a 'cylinder-sarcophagus' (**Fig. 2c**). In the photograph, the chamber is buried under sediments. Originally, it rested upon the ground and its shape was rectangular. The walls are made of edged panels.

Traces of the settlements of these monuments' patrons are still visible and are located near the tombs. They do not differ from traditional settlements. *Kenong*, stones shaped with one or two protuberances on their upper part, served as leaning points for wooden structures that have now disappeared. The excavation of these settlements uncovered materials similar to those found in the tombs. Stone statues were also placed near the structures (Prasetyo 2015).

A few kilometres from the megalithic monuments and the *kenong* houses (as the crow flies), temples made of bricks were constructed. These temples belonged to the Mataram kingdom (Medang) who was soon placed under Majapahit control. While there are no written traces of contact, the artefacts discovered within the megalithic tombs confirm exchanges took place between the two communities. As soon as the Hindu-Buddhist kingdoms manifested themselves, the local communities adopted rice culture, probably in order to satisfy the food exchange network. They also provided natural resources for exportation, such as sulphur from the Kawa Ijen volcano, known for its disinfecting and fungicidal properties. These exchanges provided a tremendous wealth income for the valley's inhabitants (Steimer-Herbet 2018).

3.2 Platforms, menhirs, and statues of Sukabumi and Cianjur (Western Java)

The Sukabumi region was also explored by the Dutch (Hasskarl 1842; Hoop 1932; Friederich 1855). Recent prospections led by NRCA representatives have demonstrated that, around the 12th and 13th centuries AD, the slopes of the Halimun and the Salak were occupied by communities who raised stones and built pyramidal platforms (Azis *et al.* 1986; Yondri 2011a-b; **Fig. 3a**). As at Bondowoso, statues were raised at Ciarca (**Fig. 3b**) but also at Bojongkalong and Cidada. At Tugu Gede, near

Pelabuhan Ratu, a 4 m tall menhir is still honoured to this day. Every year after harvest, the local inhabitants come to knot white fabric around it and make offerings to Nature spirits (**Fig. 3c**). This is one of the rare sites to be maintained, the others have been covered by the vegetation. A few have been rehabilitated, such as that of Pangguyangan, where an Islamic tomb covers the summit of a pyramidal platform seven terraces high.

These monuments are always accompanied by stone chairs, basins, and cupula stones (Tugu Gede, Ciarca, Bukit Tongtu) (**Fig. 3d**).

There are numerous examples of pyramidal platforms on the island of Java, but that of Cianjur on Mount Padang is one of the most mediatized in Indonesia (**Fig. 4a**). It is mentioned in tales and legends of the inhabitants of Sukabumi. Prabu Siliwangi, a Hindu king of the Bogor region, is said to have come to settle there at the end of the 15th century.

This site was discovered in 1914 by Dutchman N. J. Krom (1914), on top of a mountain. It was subsequently lost under vegetation and rediscovered in 1979 by inhabitants of the village of Karyamukti (Mauludy & Situngkir 2011). It was the subject of two reports by Jakarta's NRCA (Sukendar 1985a) and that of Bogor's (Yondri 2011b). Known remains consist of a series of terraces and stairs, 150 m high. The staircase leading to the site is steep, but the 400 steps are sound (**Fig. 4b**). The stone blocks used to build it come from the Cikuta river 300 m away; a few are also found in the rice fields in the valley. It is magmatic rock, in the shape of prisms. While the hill was formed of 13 terraces, only the last five remain well-preserved today and are valued. Below the summit, a strong retaining wall supports the first of the five terraces. At this location, the vestiges of a rectangular structure are visible, the door of which opens to the north towards the mountain of Gunung Gede. Its interior surface is covered with a stone pavement. To reach the fourth terrace, one has to climb a narrow staircase, now partially collapsed, constructed within a retaining wall. Terraces 3, 2, and 1 are detached from one another by small terrain slopes marked by raised stones. Stone alignments also delimit the eastern and western edges of the terraces. In the centre, with no apparent order, rectangular and circular monuments were built.

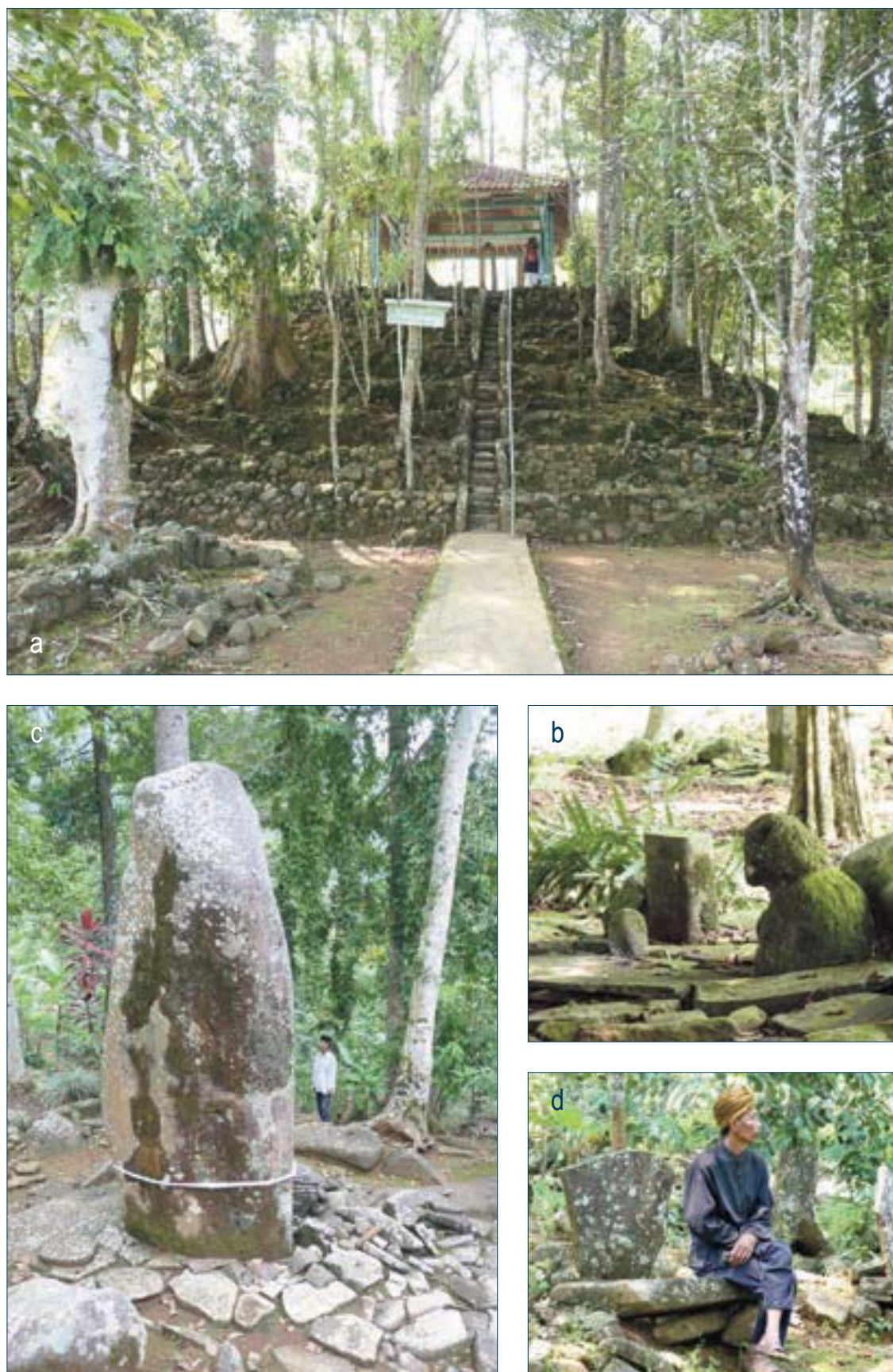


Fig. 3 – Photograph of the megalithic monuments of Sukabumi: a. Pyramidal platform of Pangguyangan; b. Statue of Ciarca; c. Menhir of Tugu Gede; d. Stone chair of Tugu Gede (Photos: T. Steimer-Herbet).

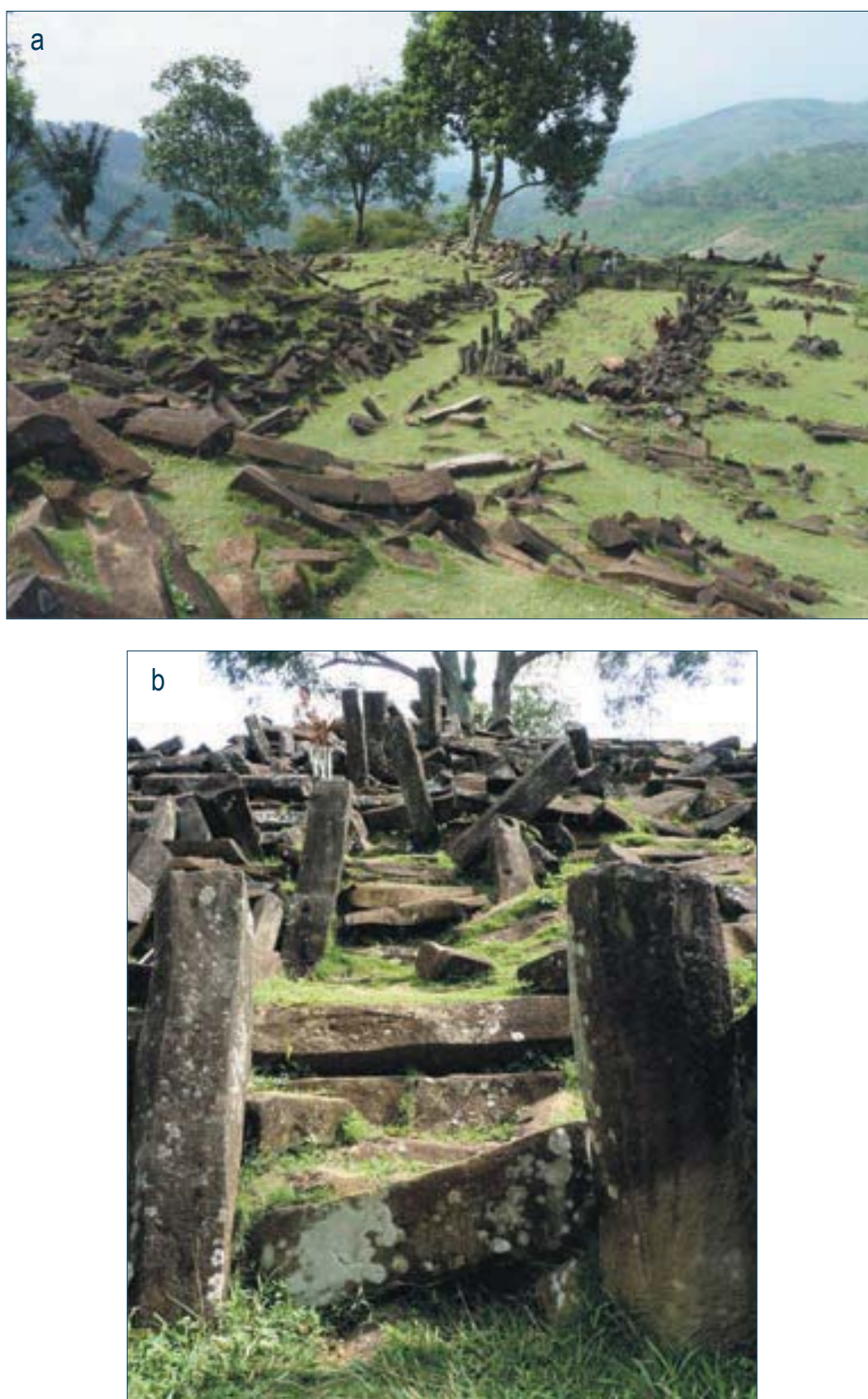


Fig. 4 – Photograph of the site at Gunung Padang: a. View of the 3rd terrace from the 4th terrace with the rectangular building; b. Staircase leading to the 3rd terrace (Photos: T. Steimer-Herbet).

As for the other megalithic sites mentioned, there are no records of its construction or its use in the written sources left by the neighbouring Hindu-Buddhist kingdoms. This colossal building site, however, must have mobilized effort and wealth implicating more than one community. The succession of terraces of the pyramidal platforms of the Sukabumi and Cianjur monuments are evocative of the Majapahit period temples, such as that of Seto in the centre of Java, dated to the 15th century. As some platforms are earlier than the temples, the hypothesis must be raised that these architectural practices served as models (Prasetyo 2015; Steimer-Herbet 2018).

3.3 Tombs, menhirs and ceremonial spaces of Kuningan (Northern Java)

In Northern Java, the Cipari site is the largest and best-preserved of the 33 discovered in the region (Fig. 5a; Kosasih *et al.* 1981). The exploration of this territory started in the middle of the 19th century with Wilsen (1855). Cipari was discovered in 1971 by Wijaya, the landowner. It occupies a 700 m² surface. The tomb's walls (Fig. 5b), the walls of the circles and the platforms of the menhirs, were all built of fine volcanic rock. The edged walls of the tomb chambers are relatively thin. The cover stones are set on their sides. Inside the tomb, no human



Fig. 5 – Photographs of the Cipari site: a. Circular place; b. Tomb; c. Raised stone (Photos: T. Steimer-Herbet).

bones were found but various artefacts were uncovered, including numerous ceramic pieces (plates, bowls, jars) including Celadon (greenware), some incense, stone bracelets (cornaline), polished stone axes, bronze axes, and bronze pearls (Azis *et al.* 1981; Kosasih *et al.* 1981).

The tombs are located near two great plazas: one is circular, the other oval. They are delimited by bench seats, and the centre is marked by a large stone of around 1 m high. On both sides of these great empty spaces, staircases lead to terraces on which menhirs were raised (Fig. 5c). The staging of the Cipari site was carefully developed, and there is a proximity between ancestral spirits (the deceased, placed in the tombs) and the members of the community who sat on the bench seats. The quality of the artefacts discovered on the site indicates contacts with exogenous populations. The kingdom of Tarumanagara controlled the whole of Western Java from the 5th century AD onwards, including the Sunda strait and that of Malacca. At the end of the 7th century, the inhabitants of Tarumanagara were under the rule of the Sriwijaya kingdom. The region was particularly appreciated for its indigo production. The Chinese Buddhist monk Faxian, returning from India to China in 413 AD mentions three religions in this area: Buddhism, Hinduism, and traditional (which he qualifies as 'dirty').

The megalithic remains of the Kuningan region are numerous and very diverse, with dolmens in Jalaksana, stone coffers and stone seats resembling those of Cipari in Cigadung, Pesawahan, and Teguh Asmar. Another very rich site, similar to Cipari, was found at Ragawacana, regrouping dolmens, menhirs, and statues (Azis *et al.* 1981; Kosasih *et al.* 1981).

3.4 Menhir-statues and *kalambas* of the Bada and Besoa valleys, in the region of Lore Lindu (Central Sulawesi)

The area of Lore Lindu was described by Kruyt (1908) who reports the words of the Sarasin brothers who passed through the Bada valley in 1902 and noticed cylindrical monuments known locally as *kalambas*. Several explorations followed: Schuyt in 1911 and Gru Bauer in 1913. Raven excavated one of the monuments of the Pokekea site in 1917-

1918 (Raven 1926). He was one of the first to attribute a funerary function to *kalambas*. Research in the area started again in the 1970s, with excavations and surveys by the NRCA (Sukendar 1980a, 1997). These intensified in 1995 and 1996, with the objective of creating a distribution map of the monuments in the Besoa valley, and there were excavations at the sites of Pokekea and Tadulako (Prasetyo *et al.* 1995a; Yuniawati 2000, 2001, 2008, 2009).

At Lore Lindu, the most striking elements are anthropomorphic statues several metres high. The most well-known is that at Palindo (Watu Molindo). It may be leaning, but it is nonetheless impressive with its 4.5 m of height. This massive statue has a face occupying a third of the granite block. Only its front part is polished; the rear was slightly shaped but mostly left rough. The contours of the face are delimited by a regular ring. At the top of the head, a protuberance may represent a knotted fabric or a crown. The ears, represented by two protuberances, are very simply carved. Conversely, the nose, the eyes, and the mouth are finely etched. The brow bone and the nose ridge form a single line. The chin is absent. Under the oval of the face, a gutter is carved out, marking the neck and shoulders. The arm line is barely discernable, and two small apophyses represent the nipples, despite this being a masculine statue (Steimer-Herbet 2018).

The statues of Lore Lindu must have represented important people (Fig. 6a). Many of them punctuate the Bada and Besoa valleys, with dimensions varying from human size to monumental. These valleys are known for their precious natural resources, such as sulphur, gold, charcoal, and iron. The Lore Lindu valley has obtained National Park status from UNESCO, in order to protect its fauna, flora, and mineral resources and deposits.

Individual wealth was also expressed through the making of *kalambas*, a type of cylindrical urn, closed by a stone cover. The most beautiful *kalambas* are located in the Besoa valley. Fifteen sites have been inventoried, one of the richest being Pokekea, where over 27 *kalambas* were discovered. One measures 4.70 m in height with a diameter of 1.87 m. The exterior wall is decorated with a banner of faces. The covers are decorated with a simple protuberance or

with small human figures (**Fig. 6b**). The excavations led by Dwi Yuniawati at Tadulajo uncovered bone fragments of many individuals (around 10), broken pots, and stone tools (Yuniawati 2000, 2001, 2008). Radiocarbon dating of grains from the lower level of the filling from one of the *kalambas* provided a *terminus ante quem* of around 830 (Erl-10584 1251

± 31 BP, 766-898 cal to 2 sigmas) (Kirleis *et al.* 2011: 174). Similar monuments were mentioned in Sumatra, in the Batak region (Steimer-Herbet 2018), but also to the east of Sumbawa and to the north of Kalimantan (Prasetyo 2015: 135; Arifin & Sellato 2003).

Paleo-environmental studies have demonstrated that several drought years considerably affected the area around the 13th century (Kirleis *et al.* 2011: 175). The acquisition of resources must have become complicated, leading to the decline of the Lore Lindu communities and to that of the neighbouring Hindu-Buddhist kingdoms. During this period statues were no longer erected and the dead no longer placed inside the *kalambas*.

In order to provide a complete overview of the megalithic concentrations that developed in parallel with the Hindu-Buddhist kingdoms, we must mention the regions of Lampung (Sukendar 1976), Pasemah, Jambi (Bonatz 2006), the Mahat valley in Sumatra (Miksic 1986), as well as the emblematic site of Gunung Kidul in Yogyakarta, at the centre of Java (Sukendar 1971). In the examples provided above, the contacts established between the kingdoms and the local communities remained purely commercial. Bonatz even suggested the relationship was servile in nature, citing the Jambi region where parts of the community could have helped transport merchandise from one coast to the other (Bonatz 2006). From a cultural point of view, these autochthonous communities managed to develop an original identity via their stone architecture, one that must have marked the minds of their commercial partners. The question of the recurring absence of written sources concerning the local communities, despite the lasting impact of the Hindu-Buddhist kingdom, must be raised. Where did the resources they exported or consumed come from? Despite thousands of megalithic monuments, these societies are invisible in the historical record, a phenomenon we might qualify as historical amnesia.



Fig. 6 – Photographs of the Besoa valley monuments: a. Anthropomorphic statue of Tadulako; b. *Kalambas* from Pokekea (Photos: T. Steimer-Herbet).

4. Megalithic societies and international trade between Asia and Europe

The pattern observed with the Hindu-Buddhist kingdoms on the islands of Sumatra, Java, and Sulawesi repeated with the arrival of Asian and European merchants. In particular, previous hotspots were 'reactivated', such as in the region of Samosir in Sumatra inhabited by the Batak community, but also in harder-to-reach islands: Nias, Flores, Sumba, Sumbawa. The local communities traded with the last representatives of the Hindu-Buddhist kingdoms and, when this failed, with Asian and European merchants developing new trading posts.

4.1 Stelae, tables and benches of the island of Nias

The Niha tribes living on the island of Nias, at large from Sumatra, have long pushed navigators away. Dutch merchants were the first to establish trading posts with the tribes of the Gomo region, at the centre of the island. These contacts considerably changed the social makeup of the tribes. In 1890, Modigliani reported on a trade deal between the Dutch and the Gomo tribes. Beyond the riches acquired by trading local resources (including patchouli), the Dutch also acquired slaves from some tribes (Bonatz 2002). True 'slave hunts' between villages started, practices that contributed to the forging of the rather belligerent character of the Nias and to the multiplication of the number of enclosures around villages wishing to protect themselves. On top of this, the practice led to unbridled competition between the tribes.

Ethnologists who worked on this island estimate that the first megalithic monuments are around 350 years old (Viaro 1984; Ziegler 1986; Ziegler & Viaro 1998). Excavations at the foot of megaliths at the Tundrumbaho and Hiligeo sites have yielded charcoal, radiocarbon dated by the PPPG laboratory of Bandung in 2004 and 2005 to 340 ± 120 BP and 260 ± 120 BP (Prasetyo 2014: 31). The shape and function of megaliths vary depending on regions (Sukendar 1983; Härmmerle 2001; Marschall 2002; Bonatz 2009). On a small island, 110 km by 40 km, there are at least three cultural groups with distinct domestic, funerary, and ritual identities. The spiritual world of the Niha is comprised of nine levels, with the gods occupying the upper ones. They are not

lineage societies, but rather based on patrilinear filiation, with several women being partnered with one man but only one of them having the same 'rank' as her husband. There are three casts: nobles, people, and slaves. The noble title is hereditary but must be validated through prescribed festivities. The nobles control the village riches, and in return maintain the village's organisation, control outside relationships, and re-distribute wealth by organising great 'merit feasts'.

The trade deals with foreign merchants created an influx of wealth and prestige goods. During this period the merit feasts coincided with the edification of stone monuments in honour of important people, as well as the sacrifice of numerous animals – mostly pigs (Feldman 1988; Beatty 1992). Megalithism in Nias is strongly linked to the living. The benches, circular or quadrangular seats, the circular stone tables sculpted from monoliths and statues were erected in honour of the ruling chiefs and nobles (Fig. 7a). The dead were abandoned in the forest, with only skulls being brought back on rare occasions to be preserved within pyramids, within cranial urns at the island's centre, or under stone tumuli in the north. Usually, wooden statues hosted the ancestor's spirit. The pyramids, urns, and tumuli were always accompanied by Y-shaped wooden posts representing the strength of the ancestors, a tradition that could have been inherited from Assam Indians.

Feasts were an occasion for the nobles to confirm their social status, and to sometimes obtain new titles thanks to a compulsory schedule of ten to twelve feasts during a noble's life. The feasts were not always accompanied by the construction of megalithic monuments. During a male noble's first feast, a raised stone called *behu* was erected (Fig. 7b). This ceremony required the help of numerous men to transport the stone, and their salary was paid by the stone's patron. The tenth feast, for both men and women, was marked by the building of a stone bench (Fig. 7c). These stones, natural or finely sculpted, occupied the public space. As such they symbolized the social power of the nobles. They also served in initiatory rituals, such as the famous 'jump pyramids' that young warriors had to jump over.



Fig. 7 – Photographs of the megalithic monuments of Nias: a. Megalithic ensemble at Lahusa Satua; b. Raised stone in the village of Dahana; c. Bench seat in the village of Orahili (Photos: T. Steimer-Herbet).

The abolition of slavery by the Dutch in 1839, the presence of missionaries, and massive religious conversions all contributed to reduce the importance of these merit feasts. Over the past 50 years, the megalithic phenomenon in Nias has been on the decline. The fall of patchouli stock value since synthetic patchouli was created has considerably reduced the final remaining trade exchanges. The financial crisis among the Nias communities was then aggravated by a pig illness in 1998. Finally, the 2004 tsunami and the 2008 earthquake meant

the end of this megalithic culture (Steimer-Herbet 2018).

4.2 Cylindrical and quadrangular urns and Toba sarcophagi on the shores of Lake Toba (Northern Sumatra)

In the north of Sumatra, the island of Samosir is inhabited by the Toba, one of the five Batak groups. Stone, or most recently concrete, tombs, are omnipresent on the island. They are placed alongside

roads, in coffee fields, and on the hillsides of the surrounding plateau. Several kinds of tombs are used to preserve the ancestor's bones: miniature houses, cylindrical urns like those of Lore Lindu, quadrangular urns (**Fig. 8a**) and, finally, the most frequently encountered shape, the sarcophagus (**Fig. 8b**) (Schnitger 1938; Barbier & Newton 1988; Barbier 1998a-b).



Fig. 8 – Photographs of the Batak megalithic monuments: a. Quadrangular urns in the village of Simanindo; b. Sarcophagi of the village of Pollung Parsingaran (Photos: T. Steimer-Herbet).

The *Singa*, a mythical animal for numerous Batak groups (Pakpak, Simsim, Kalasan), with its globe-shaped eyes, its horns, and its smile, decorates many stone sarcophagi of Toba. This animal represents Naga Padoha, god of death, but also of renewal and of harvests, and the god that receives the bodies of the dead and then transports the souls to their final destination (Barbier 2011: 73). Its large and prominent chin rests on the head of a smaller figure, half embedded in the sarcophagus. The *Singa* sits on a lightly carved chair, its folded knees held by its hands. The arms bear large bracelets and the head bears a crown. It represents the deceased ancestor. At the back of the sarcophagus, a feminine character is represented (Steimer-Herbet 2018).

Whether dead or alive, men and their descendants can change status – if they can afford it. The ruling chiefs or shaman have the power to help the spirit of the dead or the newborn to elevate themselves in the hierarchy of souls at his/her death. At death, the individual is inhumed directly into the ground or – rarely – suspended in a mat in the attic before the bones are collected about a year later during a second ceremony. The bone collection and transport are the occasion for a second feast, during which the cranium and long bones are washed. The spirit of the dead keeps the same status as in life, unless a rich descendant chooses to elevate it by organising a lavish ceremony including many pig and buffalo sacrifices and an orchestra playing for seven days. The tomb is built near old house of the deceased, which allows them to stay in contact with their family and its descendants (Stöhr & Zoetmulder 1968; Tobing 1956).

According to oral sources transcribed by Jean-Paul Barbier (2011: 88), the sarcophagi date to the 18th century while the circular and quadrangular urns with a cover date back to the 11th and 12th centuries. A 1292 note by Marco Polo on Batak cannibalism indicates that, as early as the 13th century, Europeans tried to establish links with the Samosir region communities. The Batak, however, seem to have privileged Indian merchants during the 14th century, as attested by ancient texts mentioning them. Proof of their exchanges can also be found in the Batak language, which contains over 200 words borrowed from Sanskrit, in their calendar and astrology and, to a lesser extent, in the practice

of cremating the dead (funerary urns). The latter remains relatively rare among the Toba, whilst it is frequent among the Pakpak, a tribe of Southern Lake Toba (Barbier 1988).

It is interesting to note that among the Toba-Batak there exists a certain flexibility allowing progress through the social hierarchy. If one has enough money, it is possible to change status, which is probably what allowed these clans to perpetuate their funerary traditions until the 21st century AD.

4.3 Dolmens, stone tables, and raised stones among the Manggarai and the Ngada (central Flores)

The island of Flores is part of the Lesser Sunda Islands, along with Bali, Lombok, Sumbawa, Sumba and Alor. Its megalithic heritage is varied, the better-known examples coming from the Ngada and Manggarai regions (Sukendar 1997; Sudamardi 2000a-b). The island was only recently explored by the Dutch, and Arndt, Staveren, Rouffaer, Ernst van Bekkum and Verhoven were the first to report descriptions of megalithic monuments: menhirs and dolmens (Sudamardi 2014: 104).

Megalithic monuments are easily identified in the villages of Flores (Steimer-Herbet 2018). In the Manggarai region the Jakarta NRCA led prospections and inventory campaigns of the dolmens of the village of Warloka. Discoveries were numerous: bones, lithic tools, ceramics, and metal tools. Several research theses have focused on the inhumation methods, the ceramics, or the sanitary state of the ancient populations (Sudamardi 2014). The monument distribution appears focused on a hill summit that overlooks Warloka, but some are dispersed in the plain up to the beach (Ariadi 2014). Ceramic and porcelain objects come from trade with Chinese, Vietnamese, and Thailander merchants between the 10th and 17th centuries (Rahmayani 2012). Interestingly, these objects were accompanied by others usually associated with the Bronze or Iron Age (stone anvil, gold pearls, facet pearls, and bracelets made of bronze). The megalithic monuments of Warloka are linked to a settlement and a ceremonial area located on top of a hill (Sudamardi 2014: 168).

East of Manggarai is the region of Ngada, with its traditional villages and thatched roofs that still try to survive and maintain the ancestral beliefs, despite the massive exodus of the younger generations. The villages are built longitudinally: the houses face each other on each side of a rectangular terrace, more or less elevated, following the landscape. The central plaza is used as a ritual place. At the time of the first megaliths, around the 16th century, society was divided in five classes: nobles, middle class, commoners, men without land, and slaves. The men without land tended to domestic tasks or to the fields, while the slaves constituted a resource of the nobles and the middle class. The Ngada still practice a religion mixing the ancestor cult, Nature spirits, and Christianity, worshipping Gae Dewa (the god that united Dewa Zeta – the Heavens – with Nitu Sale –the Earth) and the Cross which was imported by Portuguese missionaries (Sudamardi 2014). When they die, the Ngada become ancestors, their spirits remaining in the villages by incarnating themselves in a pond, a tree, or a stone. The body of the deceased is placed in the forest (Arndt 1929). The ancestors belong to the community and are associated with festivities: offerings are made to them (buffalos, pigs, or chicken), and they are tasked with keeping evil forces away. Despite being omnipresent in Ngada villages, megaliths are rarely cited in ethnological studies, which seem to favour describing wooden representations (Erb 1988). The sculpted wooden posts, about 3 m high and surmounted by thatch umbrellas are called *ngadhu*. They symbolize the founding male ancestor, while in front of these the *bhaga*, miniature houses with thatched roofs, represent the female founding ancestor. Each of these paired representations is associated with one of the village clans, to commemorate a long-dead ancestor. The extended families are matrilineal, with women transmitting the estate (Sudamardi 2014: 72-74, 126). The ancestors protect individuals from danger and bring prosperity. To deserve that protection, the descendants must periodically make offerings and execute particular rituals (Sudamardi 2014: 156-157).

Near the *ngadhu* and the *bhaga*, megalithic constructions of raw stones raised to the sky were placed, either in isolation (*peo*) (Fig. 9a) or in groups (*ture*) (Fig. 9b). Each megalithic monument is associated

with a village clan and welcomes the spirit of an ancestor. The *peo* is the receptacle of a male ancestor and is used to attach animals sacrificed during ceremonies. The *ture*, rectangular in shape, is made of several raised rock slabs and stone tables. While the raised stone symbolizes masculinity, the flat stone is associated with femininity. This structure is a funerary marker for the clan's warriors. In order to be assured of the ancestor's protection, offerings



Fig. 9 – Photographs of megalithic monuments of the Ngada:
a. *Peo* of the village of Tololela; b. *Ture* of the village of Bena
(Photos: T. Steimer-Herbet).

must be placed on the flat surface (Sudamardi 2014: 85-86, 142).

In addition to their role as the hosting place of the ancestors, the megaliths of Flores have other functions linked to its colonial past. These stones, where every year people come to recite the names of the ancestors, affirm an identity, a right to the land, a power, and an authority. Megaliths play an active part in everyday life. The village organization depends on particular placement within the landscape, and reflects Ngada identity, clan genealogy, and the authority of founding clans (Sudamardi 2014: 132).

Excavations at Warloka showed that the island of Flores was not isolated. On the contrary, it was part of commercial trade networks between Asia and Europe as early as the 10th century. According to the material remains found in Warloka tombs, the local communities exchanged spices (cloves, nutmeg, pepper), beeswax, and sandalwood in exchange for precious objects brought by Chinese, Vietnamese, or Thailermer merchants (Sudamardi 2014).

The island of Flores was the theatre of many incursions, some friendly, some less so, by the Majapahit, the Bima and Goa Sultanates, the Portuguese, and the Dutch. While the island was not central to commercial activities in the archipelago, it was nonetheless known for its natural resources of sulphur, beeswax, honey, sandalwood, and spices. In 1618, the local Solor authorities signed a treaty with a Dutch company (Verenigde Oostindische-Dutch Company – VOC) forcing local rulers to sell all their produce to them and provide them with slaves. The latter were put to work in the pepper and sugar plantations of Java and Sumatra (Erb 1988: 99; Sudarmadi 2014: 109-112). Sold to the Dutch by the Portuguese in 1854 (Lisbon treaty), the Ngada region resisted invasion until 1907. The arrival of Catholic priests authorized to convert the people of Flores and to force them to leave their traditional villages for the Lowlands quickly put an end to the society. Modern history has not been much kinder to this territory. In 1942, the Japanese took control of the island, then following liberation, the brand new Indonesian state aimed to impose an image of modernity, deeming the megalithic societies archaic and relegating them to folklore. While the country's official motto is 'unity in diversity', kinship

links, matrimonial practices, and the religious and economical life of the Flores communities are marginalized. In the sixties and seventies, the government gave villagers the opportunity to leave their traditional houses to be closer to the asphalt road, and to live in modern accommodation (Sudamardi 2014: 118).

5. Conclusion

Our knowledge of the relationships established between the European and Asian merchants and the tribes of Nias, Samosir (Batak) and Flores (Ngada) are based on treaties and trade deals (slaves and local resources). Ethnographic studies and our fieldwork observations complete the picture and reinforce the idea that megalithism in these islands was born – or at least rooted its larger expressions – in the interaction between local communities providing natural resources and the state-based societies that so needed them.

The power of tribal chiefs was built up and brought down depending on transactions and economic interests. The appearances and disappearances of megaliths are directly correlated to a mercantile logic. These communities were fragile, as proved by Lore Lindu in Sulawesi, where a climatic change ended megalithism, in Flores where missionaries and modernity dispersed the populations and brought ancestral traditions to an end, or in Nias

where natural patchouli was replaced by an artificial product, diminishing trade and therefore the need for megalithic expression. Flexibility in adaptation was therefore the key to the longevity of traditions, as was the case with the Batak for example, where tribes adapted to economic constraints and favoured the progression of individual status through monetary wealth, therefore opening development perspectives thanks to the major diaspora that took place among the population.

Megaliths bear witness to lavish times, when the state entities of the first Hindu-Buddhist kingdoms, as well as the European and Asian merchants, were able to develop thanks to commercial trade with local communities. The omnipresence of these monuments in valleys, mountains, and plateaus of all habited islands is exceptional, and demonstrates the vast diversity of contacts and exchanges between individuals. For these societies based on oral tradition, stone was a way to express oneself in at least five different symbolic areas: the ancestor cult, prosperity, land legitimacy, identity, and social rank: five areas essential to the social order, and for which megalithism acted as a transmission and preservation agent in a durable manner.

Translated from French
by Claudine Abegg