# SURVEY OF PRE-ISLAMIC HISTORICAL SITES IN LUWU, SOUTH SULAWESI

## David BULBECK & Bagyo PRASETYO #

Historical Background

uwu is traditionally regarded as the ✓earliest Bugis kingdom, with its hevday guesstimated between about the tenth and fourteenth centuries ACE [After the Common Era]. Much of the basis for this belief lies in the I La Galigo cycle of orally transmitted, epic literature which would seem to refer to a bygone age South Sulawesi largest before the kingdoms, such as Gowa, Wajo and Bone, established their importance after the century (e.g. Andaya, 1981; fifteenth Pelras, 1981, 1996; Budi-anto and Endang, 1995-6). Pelras has provided the most cogent account of this hypothetical « I La Galigo Age » when, amongst other things, the physical geo-graphy of the South Sulawesi peninsula supposedly differed significantly from its present makeup, as in the existence of an enermous freshwater body that covered the Tempe Depression, and articulated with the bay that used to extend across what is now the Cenrana floodplain.

However, Bulbeck (1992, 1993) expressed extreme skepticism towards the reality of Luwu's traditional status as the most ancient Bugis kingdom. The philological study by Caldwell (1988) of Bugis pre-Islamic text had already noted the

disappointingly shallow chronology of Luwu's royal genealogy, and Bulbeck interpreted this « absence of evidence » as evidence that Luwu lacked especially early beginnings. He also proposed a circa 1500 ACE dating for Luwu's list of vassals which, as identified by Caldwell (1988), included numerous communities in present -day Luwu Kabupaten, many other communities along the south coast of South Sulawesi, and a lone vassal in the Tempe Depression. Bulbeck (1992, 1993) therefore argued that Luwu reached its peak of power in the fifteenth century, and the supposition of its chronological priority merely reflected its status as the major power immediately prior to the territorial expansion of Gowa, Wajo and Bone in the sixteenth century.

Caldwell (1995) concurred with the circa 1500 ACE dating for Luwu's vassal list, and its implication that Luwu remained a major territorial power until immediately pre-Islamic times. Indeed, as already noted by Pelras (1996), the fact that Luwu embraced Islam (at some point between 1602 and 1605) before any other major South Sulawesi kingdom did, implies that Luwu retained a foremost authority in the realm of religion until at least the seventeenth century. However, Caldwell was still inclined to the view that

<sup>&</sup>lt;sup>#</sup> Dr David Bulbeck, Department of Archaeology and Anthropology, Australian National University, Canberra; Drs. Bagyo Prasetyo, M. Hum., Bidang Prasejarah, Pusat Penelitian Arkeologi Nasional, Jakarta.

Luwu was the earliest Bugis kingdom of any sub-stance. The apparent brevity of Luwu's royal genealogy may have been due to two breaks in the king list which correspond to forgotten successions of rulers (Caldwell, 1996). And Luwu is the only Bugis polity mentioned in the list of Singasari's (Maja-pahit's) vassals in the fourteenth century poem Nagarakertagama; the other iden-tifiable vassals in South Sulawesi: Makassar, Bantaeng and Selayar, are all Makassarspeaking places distributed along the south coast (Caldwell, 1988). Caldwell (1995) further hypothesized that Luwu's export of nickeliferous iron to classical provided the economic foundation for prominence [which Luwu's early continued in a less monopolistic vein till at least 1600]. Furhter, recent research on Luwu's vassal list shows that Luwu's territorial control along the south coast was restricted to the southwest corner of the peninsula, which thus appear to have acted as a staging post in the trade between Luwu and Java (Caldwell pers. comm.).

This spectrum of views summarized above would be widened further if the views of Indonesian scholars were also included. It is less a pedantic debate on which kingdom [s] came first as it is an enquiry into the nature of the establishment of centralized political authority in South Sulawesi. Luwu lacks the rich agricultural lands and pronounced monsoon of the main body of the South Sulawesi peninsula, which was dominated by populous agrarian kingdoms based on wet-rice agriculture. Hence if Luwu had been established relatively early, the agrarian Bugis royal families would have begun sponsoring the expansion of rice agriculture within their realms at a relatively late date, perhaps in the fifteenth century suggested by Macknight (1993).

Further, Luwu lies far off the major trade routes between Java and eastern Indonesia. unlike South Sulawesi's south coast which has long been a traffic route between the eastern and western Indonesian islands. Luwu's primary advantage was its access to the nickeliferous iron ore around Lake Matano, as well as other central Sulawesi produce such as gold, forest produce [e.g. dammar gum] and Rongkong iron ore. Luwu would have developed as a trading terminus [or collection area] rather than as a waystation, and this point has major implications for any model on the roles of long-distance trade, and external influences, in the initial development of complex societies in South Sulawesi.

#### Previous Archaeological Work in Luwu

Yery little archaeological work has been undertaken in Luwu, despite its critical significance to understanding the origins of kingship in South Sulawesi. Excavations are limited to two 1930s' projects, neither of which was oriented towards understanding the kingdom of Luwu, directed by the Dutch archaeologist W.J.A. Willems. On the other hand the surveys, involving the description of structural remains and/or the collection of artifacts from the surface, have aimed to illuminate the historical archaeology of include kingdom. They Romondt's description of various early Islamic tombstones, the collection in the 1930s of two thirteenth-fourteenth century Chinese stoneware sherds from some tumuli at Palopo (Bulbeck, 1996-7), a brief sortie by Macknight and Bulbeck in 1994-5. M. Irfan Mahmud's (1993) study of Benteng Tompottikka in Palopo, and the comparative description of the megalithic complex of Mangkaluku by Budianto and

Endang. Our 1997 survey is the first official field work undertaken for the « Origins of Complex Society in South Sulawesi » or OXIS project, which will involve further surveys and excavations in well 1998 and 1999. as comprehensive compilation and total analysis of the oral and textual sources on Luwu's history. Karaeng Demmanari of Balai Arkeologi Ujung Pandang [Regional Office for the Pusat Penelitian Arkeologi Sumantri and Iwan Nasional. of Hasanuddin University Archaeology Department, accompanied us in the field. Our survey revisited the two sites excavated by Willems, and for convenience sake we will report our impressions in this section of the article.

Willems (1938) excavated two large earthenware jars in Sabbang, a short distance northeast of Luwu's present-day capital of Palopo. Although the jars did not contain any recognizable human remains of burial goods, they were interpreted as mortuary vessels, and considered to be prehistoric from their stratigraphic position beneath iron fragments and Chinese tradeware sherds in the upper levels. The site has since found its way into the standard literature on prehistoric burial sites in Indonesia, as for instance in Bintarti's various surveys on the topic. In 1985, Macknight and Bulbeck learned that highway which skirts Willems excavation had disturbed many more of these large jars, i.e. the site was in reality an urnfield cemetery. Accordingly Bulbeck (1992) proposed a protohistorical dating for the site, in the order of 1000 ACE, and suggested that human bones had originally been placed inside but that they had failed to preserve. Our 1997 survey learned that the growth of housing nort of the road regularly resulted cutting had disturbance to yet further large earthenware

jars, and that the total extent of the urnfield was in the order of 200 meters [more precisely, 250 meters] along its major axis. Further, local information indicated that metallic goods [and beads] are sometimes present inside the jars, but imported ceramics are not.

The site also has great significance for the historical chiefdom of Baebunta, which was one of the major constituents of Luwu by the fifteenth century. The site lies in Sassa [Desa] which, according to Andi Anton of Palopo, as reported by Ian Caldwell [pers. comm.], as the concealed center or pusat tersembunyi of Baebunta. The information we collected on site confirms this association. Moreover, the local officer for cultural heritage, Musallim Jaya, showed us a large stone tablet, adjacent to Willems'excavation, which is reputed to have originally been part of the stairway to the palace of the first Baebunta toma-nurung, i.e. the one who descended to initiate the Baebunta royal line. Now, it is possible that the urnfield's location within Baebunta's sacred center is sheer coinci-dence, or that memories of this cemetery's religious significance led to its rehabili-tation as a Baebunta sacred site, or that the cemetery was used continuously through to the origins of the Baebunta chiefdom. Fortunately, there are a few spots left where still undisturbed iars should be present for excavation, and we plan to excavate these areas in our 1998 exca-vation season, and obtain charcoal samples and sherds from the jars for radiocarbon thermoluminescence and dating respec-tively. Sabbang may present our best opportunity for identifying the late pre-historic or protohistoric foundations of a Luwu historical kingdom and, even if a large temporal gap exists between the cemetery's period of use and the demonstrable origins of Baebunta chiefdom, the

co-occurrence of an abode of the ancestors with Baebunta's hidden center would still be of great importance for understanding the origins of Luwu's hidden centers.

The second site excavated by Willems was Karangkarangan in Kecamatan Bua, south of Palopo. It is a complex of approximately 25 mounds, some of which still stand up to a meter high. Willems sectioned two mounds with disappointing results, no artifactual content apart from some seventeenth century sherdage and iron slag, despite the expectation that these may have been associated with ironworking or smelting (Bulbeck, 1996-7), is also refuted by our inspection. The general area is virtually bare of surface artifactual contents, and the mounds look like large, hardened versions of the mounded earth which can often be seen surrounding the base of coconut trees in the general area. The most parsimonious expla-nation is that Karangkarangan had once been a coconut plantation, and a fire at some stage had baked the clay-rich earth which had built up around the base of the coconut palms. It is also possible that the mounds had been deliberately built up for other agricultural purposes, before being baked by fire, but certainly there is no reason at present to interpret the mounds as mortuary, domestic or industrial features.

Caldwell's surveys resulted in several major additions to the literature on Luwu (Caldwell, 1993, 1994), and formed the basis for our own survey. The most important finding may be that Luwu's royalty was based in the Patimang/Malangké area at the time it embraced Islam, not in Palopo as had generally been supposed. The *Kuburan* Putti Batué complex in Patimang features the commemmorated Islamic graves of Datu Sulaiman, the missionary who introduced

Islam to Luwu, and Petta Patimang, also known as Matinroe ri Ware' or Sultan Mahmud, who converted to the new religion. A short distance away is Kuburan Islam Petta Malangké, which contains Luwu's second sultan, who was also the son of Petta Patimang. Both sites are now protected by Suaka Peninggalan Sejarah dan Purbakala Sulawesi Selatan dan Tenggara [Service for the Protection of Historical and Archaeological Remains]. Only later, but presumably still in the early seventeenth century, did Palopo shift its palace center to Palopo mosque which is reputed [perhaps with a touch of romanticism] to be the oldest extant mosque in South Sulawesi (e.g. Reid, 1990; Pelras, 1996).

Caldwell also recorded several other toponyms in the area which are associated with sixteenth century rulers. They include Balubu and Jampu, associated with Datu ri Balubu and Maningo ri Jampué, the mother and grandmother respectively of Petta Patimang. Caldwell (1993) was also advised that Patimang had been the site of the richest hauls of imported ceramics and other antiques in all of South Sulawesi. Bulbeck's 1994-5 survey confirmed this information with a vengeance (Bulbeck, 1995, 1996-7). An enormous area had been looted immediately behind the Kuburan Putti Batué complex. People reported that the looters had typically encountered a large stoneware or blue-andwhite ceramic jar, which contained chgrcoal and burnt broken bones, while blue-and-white, smaller Sawankhalok. whiteware and celadon vessels were found arranged around the jar, often with bronze, iron and silver wares. Patimang Tua contained an even more spectacular complex of cemete-ries with cremations, as was the mortuary custom among the Bugis immediately prior to Islamization.

Bulbeck's team learned of eight separate clusters of antiques which included every conceivable type of import-ed ceramic as well as ironwares, bronze and occasional gold. However, the surface sherdage collected from Patimang Tua, and the Patimang antiques still present within the village, all appeared to be of fifteenth to seventeenth century antiquity, so the survey was unable to conform Caldwell's earlier report (1993) that many Song Dynasty celadons had been looted in Patimang. Indeed, on all of his three surveys in Luwu so far, Bulbeck is yet to see a single ceramic sherd or vessel which necessarily dates before the fifteenth century ACE.

Ussu and Cerekang, at the virtual northernmost point of the Bay of Bone, are renownedas the oldest center of Luwu, and a key area of action in the I La Galigo epic (e.g. Reid, 1990; Pelras, 1996). Caldwell (1993, 1994) learned that Ussu was Luwu's visible center or pusat nyata, and Cerekang [also called Manurung] was Luwu's hidden center [pusat sembunyi]. He also recorded that the Cerekang River was navigable by ocean-going perahu as far upstream as the sacred place of Pengsiwoni which is locally identified with the hill where, according to the I La Galigo, the god Batara Guru descended to earth to initiate humanity. At high tide, smaller perahu can then proceed as far as Turun Damar, from where it is possible to proceed by foot as far as Matano, on the eastern edge of Lake Matano (see also Reid, 1990: 108). Matano is a site of major significance with a long tradition [recently suspended] or iron smelting and working, vast amounts of ironworking debris within and around the village, the remains of a system of earthen defensive walls as the rear of the village, and an extensive carpet of artifactual materials that includes flaked

chert, plain and decorated earthenwares, and sherds of imported ceramics dating from at least the fifteenth century ACE (see also Bulbeck, 1995).

Caldwell (1993) had also recorded several iron ore quarries in the highlands between Sae, Seko and Limbong, although the available informamtion suggested that the quarries were fairly small, and the extracted iron was smelted and worked for local use only, not for export. His diary notes (Caldwell pers. comm.) focus especially on the three Limbong sources at Balanulu, Pangiwangen [where the ore is reportedly of a quality suitable for making weapons], and Bukit Porreo', used for producing magically powerfull weapons that cause the victim to bleed to death even if the blade penetrates only centimeters beneath the skin. One of us (Bulbeck) visited Limbong and learnt much the same information, along with the additional report that all great Luwu aristocratic men would bear weapons made from Porreo' iron. As well as the iron, another reason for the area's potential historical importance is Limbong's position along the Rongkong valley which constitutes one of the major highways between the Central Sulawesi highlands and the Luwu coastal plain. In recent times, dammar gum and other forest produce would be carried by horseback down the valley to Sabbang.

We did not have the opportunity to visit the Mangkaluku megalithic complex which lies on the Binuang River, a tributary of the Rongkong. Generally speaking, Luwu's historical sites tend to have only isolated megaliths, such as the batu dakon in Matano's sacred spring, the batu bergaris or incised stone now in Patimang Baru, and the laso batu or worship stone in Penglongan, Limbong, where the local headman resided. Such sparsity contrasts with the abundance of

megaliths in many Bugis agrarian areas, such as Soppeng (Bahru Kaluppa et.al., 1989), or in the Tana Toraja highlands. Mangkaluku includes a large engraved boulder of 6.3 meters diameters and 2.7 meters height, five hollowed out batu berlubang, and two menhirs. curvilinear motifs on the engraved boulder include circles, spirals, heart-and flowershaped designs. and what may representations of bufallo horns (Budianto and Endang, Sherds from 1995-6). earthenwares and imported ceramics were also seen in the vicinity, and the surveying team heard that possible burial urns had been disturbed by construction work near the site (Budianto Hakim pers. comm.). An inspection of Mangkaluku by OXIS is a clear priority, to assess its excavation potential, and how it may relate to the trade routes from the highlands to the coast, in particular the routes from Tana Toraja to Palopo. The major recorded site in Palopo, Benteng Tompottikka, may also be excavated during OXIS'1998 field season, because Irfan's (1993) description of its earth walls which defend an area of approximately 1 kilometer by 2.5 kilometers, and his report of the results of surveys for surface sherdage, allow us to identify the optimal areas for excavation, even though we did not have any opportunity for personal inspection.

One major site no longer available for study is Puang Mataena [Baebunta 1], on the Baebunta River, a short distance northeast of Sabbang Loang. This was an enormous looted area shown to Macknight and Bulbeck in 1985, along with examoles of its Vietnamese and other Ming-period ceramics, and bronzes and other metallic grave goods. By 1994 the site had been totally redeveloped as a yard for storing logs trucked down from the rainforests in the highlands. Accordingly, attention has

switched to the hill with a flattened top directly across the river, named Pinanto [or Baebunta 2], as it is possibly the palace center of the pre-Islamic Baebunta chiefdom (Bulbeck, 1995). Another looted cemetery associated with Baebunta is locat-ed around a local hill top where a small shrine commemmorates the place chere Puang Balubu, Baebunta the tomanurung, supposedly descended to earth. Local information suggests that this is the pusat nyata or visible center that couples with Baebunta's hidden center at Sabbang Lo-ang. An area extending across approxi-mately 100 meters has been looted for its grave goods, dating between the fifteenth and sixteenth centuries on the available evidence, associated with cremations in large burial jars. excavation potential now seems minimal, and instead we may turn to the third potential site that was brought to the attention of Macknight and Bulbeck in extends over approximately 500 meters by 500 meters. However, it is difficult to interpret because the local Lemolang inhabitants have not retained much folklore on the place, and because its coverage by secondary forest and cacao trees conceals any surface artifactual content. We intend to auger Tinoé in 1998 to determine what, if any, kind of archaeological site it may be, before pro-ceeding to a small-scale excavation [depen-ding on the results from the augers].

### Habitation Sites Recorded in 1997 at Kecamatan Malangké

Our November 1997 survey recorded a large site, with wonderful prospects for archaeological preservation, directly behind the Datu Sulaiman Islamic cemetery complex. We provisionally named the site Patimang Baru 2, or Istana

Datu Patiware, although the name of the place is more precisely Putti Batué. It is located at 2° 47.7'S 120°23.9' E in Desa and Dusun Patimang. Fragments of ceramics and so forth had been noted in the walls of a canal that had been dug through a mandarin plantation to fill a huge fishpond imme-diately in fornt of the Dato Sulaeman complex. In the sections of the canal, we observed that approximately 60 centime-ters of clay had sealed in a cultural layer which extended along 100-150 meters in length. The layer included about twelve house posts, either still thrust into the mud or uprooted when the canal was dug, and a wide range of artifacts and ecofacts such as a stone mortar, two possible stone pestles, a knife with a curved blade, fragments of an iron knife blade and an iron hook, eight sherds from imprted ceramics, about 50 earthenware sherds, a fragment of an earthenware lamp with traces of dammar still adhering to it, and a water-bufallo bone. Not only have plant and animal remains preserved at the site, but also the iron has escaped extensive erosion. Most of the ceramics date readily the fifteenth-sixteenth centuries. although one Tehua whiteware sherd may be as early as the fourteenth century, whilet one blue-and-white sherd looked to date to the eighteenth century. The site may well have veen the palace center of the Luwu royalty in the couple of centuries immediately prior to the acceptance of Islam. Its excellent preservation indicates that excavation here may provide the best documentation of a pre-Islamic palace center in all of South Sulawesi. and one of the best in Indonesia. Even if the site were not a palace center, as can be determined only after excavation and analysis, it sholud allow a unique insight into Luwu's immediately pre-Islamic way of life.

A second major habitation site, estimated to be around five hectares in size, was recorded at Patimang Tua, on a gently raised area in the middle of the looted cemeteries referred to above. It is located at 2°46.3' S 120°23.4' E in Dusun Belawa, Desa Patimang. Farmers working in this raised area report that there used to be enormous banyan tree here, and that regularly encounter thev would earthenware and ceramic sherdage, along with wooden fragments and ironwares such krisses. knives and approximately 20 centimeters and meter's depth. These reports suggest that preservation circum-stances may be quite good, even though the land lies above the rainy season flood levels. The goals of our excavation will be to concentrate on little disturbed locations in between mandarin and cacao trees in an attempt to determine the size of the site, chronology, function [perhaps a metalworking or other semi-industrial settlementl, and possibly its zonation according to wealth and occupation.

further have Two sites targetted for excavation by OXIS in 1998. One in Malangké Beccu in Dusun and Desa Malangké, at 2°47.5' S 120°26.2' E. It lies within a sago plantation where some looting of antiques has occurred, close to Kompleks Makam Petta Malangké. It was pointed out as the location where Petta Malangké may have had his palace, on the basis of the banyan tree which used to stand here amidst the coconut and sago palms at the site. Our second target ia Benteng Massalekoé, also called Rampang Cappa Solo, located at 2°43.0'S 120°26.5' E in Dusun Sumberagung Selatan, Desa Salekoé. The visible feature is an S-shaped bank of earth running for a length of approximately 500 meters, to a height of about 50 centimeters, although reportedly

it used to stand up to a meter high. According to Irfan (1993: 4) this used to be Luwu's capital before it moved to Palopo, although according to Abdul Hawik Daeng Pawilo, a local expert on ancient lore, it was the place where the local tomanurung, a son of Sawerigading, descended to earth.

When the results of the several surveys of Patimang and Malangké are combined with Caldwell's historical toponyms, the evidence is indisputable that Luwu's capital was based here between at least 1500 ACE and the early seventeenth century. We have if anything an embarrassment of top-level sites: two suspected palace centers, a defended site which may have been a capital, and a five-hectare settlement in the midst of South Sulawesi's single richest source of looted burial goods. Excavation is required to date the begin-nings of occupation at these sites, the phase of major expansion which can be identified with the area's development as Luwu's capital, and the economic activities which underwrote Luwu's late pre-Islamic pro-minence. Surveys will also be carried out to identify all the looted cemeteries in the vicinity, as there will provide as estimate of the size of the population, and the inhabitants'economic pursuits [based on access to subsistence possibilities and tran-sport potentials].

Habitation Sites Recorded in 1997 at Kecamatan Malili

In contrast to the increasingly clear picture that is emerging at Patimang/Malangké, the area between Ussu and Cerekang continues to be shrounded by impenetrable mystery. The landscape comprises a patchwork of sacred sites, ussually associated in some way with the *I La Galigo* epic, which may not entered with-

out prior performance of the appropriate ceremonies, and places where the inhabitants may carry out their day-to-day activities. We have good reason to suspect that at least some of the sacred reserves, which are enclaves of primary secondary forest, are historical archaeological sites of a pre-Islamic to early Islamic date: for instance Sangyang Seri in Cerekang, which some outsiders had attempted to loot a number of years ago; and Tamalipa in Ussu, which has some abandoned Islamic graves of possibly eighteenth to nineteenth century date. Speculation on the archaeological potential of these reserves, and how they may relate to Luwu's initial establishment [which is traditionally suspected to have occurred in this areal, is not advisable until a thorough, critical compilation and analysis of the local folklore on these places has been undertaken. We did, however, manage to locate some nearby sites where people reported evidence of habitation such as earthenware sherdage. The prospects are not especially promising for the early use of these sites reaching back into our period of interest, but their excavation will provide a demonstration to the inhabitants of the sort of information OXIS is pursuing, and may supply the venue for learning of other areas with sherdage, outside of the sacred reserves, which are of true antiquity. The sites which we targeted for excavation were Mangkulili 1 and 2, in Dusun Cerekang, Desa Manurung, in sight of Walangrengage where Sawerigading supposedly built the first perahu, and Taipa, Dusun and Desa Ussu, which lies across the Ussu River from Tamalipa.

One archaeological site of interest was documented during our survey, Turun Damar, also called Turun Batu, in *Dusun* Cerekang, *Desa* Manurung, at 2°32.7' S 121°00.6'E. The site appears to have been

the terminus for the overland traffic of iron ore [batu] from Matano, and dammar from the surrounding hills in general. The materials were loaded onto small canoes at high tide for transport along the Cerekang River to Cerekang, where they could be transferred to ocean-going craft. Turun Damar is still occupied, though the settlement is much smaller than the former kampung here whose presence evidenced by a flattened area with old garden trees. Most of the surface remains we could find appeared quite modern, but we also encountered a most unusual plate sherd with incised interlocking triangles, an apparent incised script, and the traces of a Sancai or three-coloured glaze. This sherd would appear to date to the fifteenth century or, possibly, earlier.

Ironworking Sites Recorded in 1997

n the western margin of Lake Matano lies kampung, Dusun and Desa Matano, Kecamatan Nuha. It is reputed to be the major center for working nickeliferous iron ore from the surrounding hills. which was then exported to Java as Pamor Luwu to be used in Majapahit-age krisses. The main street along the edge of the lake is known Pandai as Besi « Ironworker », and the earth is dark with masses of iron. Unfortunately, this strip has been recently landscaped by bulldozer, so the thick quantities of flaked chert and pottery on the surface are the result of profound site dis-turbance which has mixed together mate-rials of all ages. Accordingly the exca-vations at Matano will take place slightly uphill in an area which has not been bulldozed, but which may still be quite disturbed from the building and gardening activities of the inhabitants. The area is known

Rahampu'u, which means « First House » and is reputedly the original name for Matano. Two places were provisionally selected for excavation, based on the presence of surface materials such as earthenware and ceramic sherdage, iron ore, a piece of possible iron slag, a cubic fragment of iron, and small numbers of chert flakes. The location details of these two locales, Rahampu'u 1 and 2, are 2°27'34" S 121°13'00"E. One particular research question is whether the chert flakes represent a stone-tool industry, or the production of innumerable sparks to light the ironworkers' fires [i.e. from strikea-lights or batu api].

Further up the hill, behind the main settlement, are some intersting earthworks. These include a 245 meter lenght of earthen wall, about 1.4 meters high, which runs into the possible remains of a rounded rectangular enclosure of earthen wall of approximately 100 meters length and breadth. Bulbeck's original survey (1995) found only evidence of European and Oing Chinese sherdage along the observed walls, and our 1997 observations also suggest very little artifactual content adjacent to the long wall or inside the possible defended enclosure. Recently obtained literary (Ian Caldwell, pers. comm.) and oral (Iwan Sumantri, pers. comm.) historical evidence suggests the defenses may date to the late nineteenth century when Matano was part confederation that opposed Luwu's rule. Although we no longer expect to test their historical associations, and to seek out the traces of any older defensive structures which may lie beneath the earthen banks.

At least one of the three targetted ironworking sites in Limbong is not expected to be of any great antiquity, either. This is the rectangular outline, about 10 meters by 5 meters, which lies on the

western border of the soccer field at Kamiri. Local information identified it as the shed where iron ore, collected from Bukit Pangiwangen and Bukit Porreo', used to be processed to extract the iron which was then blended to make weapons. Two depressions in the outline were identified as the remnant resting places where the iron ore was crushed, another depression was identified as the forging hearth, and a mound at the south may have been a slag heap. Excavation of this site provides a marvellous ethnoarchaeological opportunity to detail the structure of a traditional ironworking shed and, hence, a model to interpret other sites, such as Matano, where site-formation processes have undoubtedly blended the remains of a long sequence of ironworking installations. The second Limbong site is the Kamiri soccer field itself whose surface contains some earthenware sherdage, iron fragments, and burnt bits and pieces; the potential applicability of the Kamiri ethnoarchaeological model can be directly trialled here. Both sites lie in Kampung and Dusun Uri, Desa Pengkendaken, 2°35.2'S Keca-matan Limbong, at 119°56.3'E.

The third Limbong site, Passauen, lies close to Bukit Porreo', in Kampung and Dusun Ponglegen, Desa Marampa, at 2°34.6'S 119°54.1'E. Again, local information indicated that Pangiwangen and Porreo' ores were mixed here in the production of iron weapons. The actual spot where people remembered that the ironworking shed had stood has since been dug out, but the immediate surrounds had burnt earthenware sherds, singed glass, iron fragments, and a piece of battered chert on their surface. An apparently little disturbed yard with a rice shed, right next to where the old ironworking shed had presents the best reportedly stood,

available opportu-nity for obtaining a usable archaeological record on the Passauen ironworking industry.

Conclusions

The Projected 1998 excavations will I document the most important political and economic sites at Patimang/Malangké, to document the immediately pre-Islamic/ transitional Islamic capital of Luwu. The work at Sabbang and Baebunta will provide an understanding of the pre-Islamic Baebunta chiefdom which must have had a major role in Luwu's establishment at Patimang/Malangké. The excavations at Matano and Limbong will record the iron industry at these two localities which are traditionally renowned as the two major sources of Luwu's iron production. Whether there was some sort of shift in focus from Matano to Limbong. corres-ponding to a movement of Luwu's political center from Ussu/Cerekang to Patimang/ Malangké, or whether palace center moved for other reasons, is a topic under investigation. As an alternative reason, Patimang/Malangké lies very close to the center of distribution of those circa 1500 ACE vassals of Luwu which ring the Bay of Bone, so it would have been ideally located as a central administrative or marketing place, especially if Luwu's trade and communication between « vassals » was mediated primarily by coastal shipping. The interpretation of Ussu and Cerekang via archaeological means is less likely to be decisively advanced during 1998 field work, although a start towards understanding how this area corresponds to the origins of Luwu can be expected.

The fact that we are now able to develop an excavation strategy to test definite hypotheses on Luwu's chronology, and its changing mode of operation over

time, in itself shows how much progress on the topic has been achieved over the last decade. To test these hypotheses, various Australian experts will be involved in the areas of iron sourcing and traditional iron technology (Len Hogan), phytolith identifi-cations (Doreen Bowdery), and pollen analysis (Geoff Hope), as well as the more traditional archaeological areas of radio-carbon dating, ceramic identification. and earthenware analysis. The work on phyto-liths, for instance, sholud provide information on the degree to which the inhabitants were consuming rice opposed to sago, and the changing face of the vegetation at the sites themselves as occupation proceeded. The end result should be an archaeological documentation which is sufficiently solid to provide its own context for interpretatio, but which can also be linked to the historical and anthropological issues which arise from Luwu's pre-Islamic texts. Luwu is a large area with, obviously, very rich archaeological resources. and the 1998 excavations should provide the fundamental framework for future, more detailed research.

Postscript

This article was written up in essentially its present from immediately prior to any excavations in Luwu, but was not submitted for publication until the 1998 field work in Matano, Sabbang Loang, Baebunta and Ussu/Cerekang had been completed. Accordingly, we have amended various impressions from our original manuscript which we now understand to have been inaccurate or wrong, although we have not attempted to provide any new interpretation of the sites in question, as that would only be possible after analysis

of the finds, and careful deliberation. It can however be stated that the results from the expectations have far exceeded our expectations in terms of the richness of the available information.

Acknowledgments

XIS'archaeological field work in Luwu is supported by Australian Research Council grant, and an International Colla-borative Research Grant from Wenner-Gren Foundation for Anthropological Research Inc. It falls under the auspices of Lembaga Ilmu Pengetahuan Indonesia [LIPI] (Research Permit nº 1624/I/KS/ 1998) as being nationally sponsored by Pusat Penelitian Arkeologi Nasional in Jakarta, and locally sponsored by Balai Arkeologi Ujung Pandang in South Sulawesi. Intellectual supervision is being provided by Dr Peter Belwood [Archaeology and Anthropology-Australian National University] and Dr Truman Simanjuntak [Bidang Prasejarah-Pusat Penelitian Arkeologi Nasional, while Dr Moh. Ali Fadillah, head of Balai Arkeologi Ujung Pandang, is responsible for the local administration. Drs. Iwan Sumantri of the Jurusan Arkeologi, Universitas Hasanuddin, is also central to the planning and performance of OXIS' field work operations. Dr Ian Caldwell of Hull University, who is OXIS'chief coinvestigator under the terms of the Australian Research Council's large grant. provided comments and encouragement on this paper. Of the numerous individuals in Luwu who have assisted OXIS'program to date, special thanks should be extended to Andi Hasan Opu Tohatta. 📮



#### REI ERENCES

- Andaya, L.Y. 1981. The Heritage of Arung Palakka: A History of South Sulawesi (Celebes) in the Seventeenth Century, The Hague: Martinus Nijhoff.
- Budianto H. & Endang Sri H. 1995-6. « Laporan Penelitian Arkeologi Situs Mangkaluku, Kabupaten Luwu, Propinsi Sulawesi Selatan », Jakarta: Departemen Pendidikan dan Kebudayaan Bagian Proyekl Penelitian Purbakala Sulawesi Selatan (unpublished report).
- Bulbeck, F.D. 1992. A Tale of Two Kingdoms: The Historical Archaeological of Gowa and Tallok, South Sulawesi, Indonesia, Unpublished PhD Thesis, Canberra: Australian National University.
- early South Sulawesi History », Baruga, 9, pp. 10-18.
- Sulawesi, 27 December 1994 to 10 January 1995 », Unpublished ms.
  - Age of South Sulawesi, Indonesia: mortuary traditions, metallurgy and trade », in F.D. Bulbeck and Noel Barnard (eds), Ancient Chinese and Southeast Asian Bronze Age Cultures, vol. 2, Taipei: Southern Materials Center Inc., pp. 1007-1075.

- Caldwell, I. 1988. South Sulawesi A.D. 1300-1600: Ten Bugis Texts, Unpublished PhD Thesis, Canberra: Australian National University.
  - South Sulawesi », Baruga, 9, pp. 6-8.
- in Luwu with Bahru Kallupa and Iwan Sumantri », Baruga, 10, pp. 9-10.
- Society among the pre-Islamic Bugis », BKI, 151, III, pp. 325-342.
  - the King List of Luwuq to 1605 »,
    Paper presented at the « International
    Seminar on South Sulawesi History
    and Culture », Ujung Pandang,
    Indonesia, 16-17 Desember 1996.
- Irfan Muhmud, M. 1993. «Struktur Kota Palopo Abad XVII-XIX Masehi: Studi Arkeologi tentang Pemahaman Eksperiensial dan Cita-Pikiran», Skripsi S1 (unpublished), Ujung Pandang: Fakultas Sastra, Universitas Hasanuddin.
- Kallupa, Bahru. David Bulbeck, Ian Caldwell, Iwan Sumantri and Karaeng Demmanari, 1989. Survey Pusat Kerajaan Soppeng, Final Report to the Australian Myer Foundation, Canberra: privately published.

- Macknight, C.C. 1983. «The Rise of Agriculture in South Sulawesi before 1600», Review of Indonesian and Malaysian Affairs, 17, pp. 92-116.
- Pelras, Christian. 1981. « Célèbes-sud avant l'Islam selon les premiers témoignages étrangers », Archipel, 21, pp. 153-184.
- \_\_\_\_\_ 1996. *The Bugis*, London: Thames and Hudson.
- Reid, A. 1990. «Luwu: land where the gods descended», in Toby Alice Volkman and Ian Caldwell (eds), Sulawesi The Celebes, Barkeley/ Singapore: Periplus Editions, pp. 106-109.

- Van Heekeren, H.R. 1940. « Medelingen », Oudheidkundig Verslag 1939, Bandung: A.C. Nix & Co., p. 12.
- Willems, W.J.A. 1938. « Preliminary report on the excavation of an urn-burial ground at Sa'bang near Palopo (Central Celebes) », in F.N. Chasen and M.W.F. Tweedie (eds), Proceedings of the Third Congress of Prehistorians of the Far East, Plates XC-XCIII, Singapore: Gouvernment of the Straits Settlements, pp. 207-208.



