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*F. David Bulbeck
Australian National
University.*

This account presents some first impressions and results from my fieldwork in South Sulawesi province, Indonesia, between May 1986 and January 1987. The fieldwork forms the basis of my PhD topic which, broadly speaking, examines the rise of social complexity in the South Sulawesi lowlands during the second millennium A.D. As the period of interest leads into the establishment of indigenous written historical traditions, the topic is called 'The South Sulawesi Prehistorical and Historical Archaeological Project' (SSPHAP). The research has focussed on reconstructing the evolution of the Makassar state of Gowa-Tallo, particularly through a locational analysis of thirteenth to seventeenth century archaeological sites, notably burial grounds and fortifications. SSPHAP has also regularly recorded archaeological remains from earlier and later periods, and has collected information on the culture history and changing land use patterns within the study area from the late Pleistocene or early Holocene to the present.

PHYSICAL DESCRIPTION OF THE STUDY AREA

Gowa-Tallo had its immediate origins along the lower courses of the Sungei (River) Jeneberang, with wider initial contacts as far as the Sungei Maros to the north and Bangkala Bay to the south (see Fig. 1). The Sungei Jeneberang and the channels ancestral to the present course have built up the large coastal floodplain between the Tallo and Cikoang rivers (Sobur 1984/85). During the wet season, which is confined almost entirely to the months between October and March (Furukawa 1982), the Sungei Jeneberang transports sandy deposits which have blocked successive outlets and caused new outlets to be sought (Sobur 1984/85). Other factors possibly responsible for the Sungei Jeneberang's dynamic nature in the past include the cutting of new upstream channels, the blocking action at one or more places by Baturape-Cindako volcanic deposits, and localised uplift within the coastal plain (Sobur, pers.comm.).

Ujung Pandang, the provincial capital of South Sulawesi, is centred on old beach ridges just north of the present mouth of the Sungei Jeneberang (Reid 1983). The rural area is densely occupied by village communities, Makassar in the main. The major produce is wet season flooded rice grown in bunded fields (sawahs), with two crops a year in places favoured by irrigation schemes. Prior to development of these centrally-administered irrigation schemes, the upper and middle deltas of the major coastal streams may have been the most productive sawah areas, owing to their annual inundation by silt-laden fresh water. Accordingly, past shifts in the course of the Sungei Jeneberang may have dramatically affected regional potentials for surplus agricultural production.

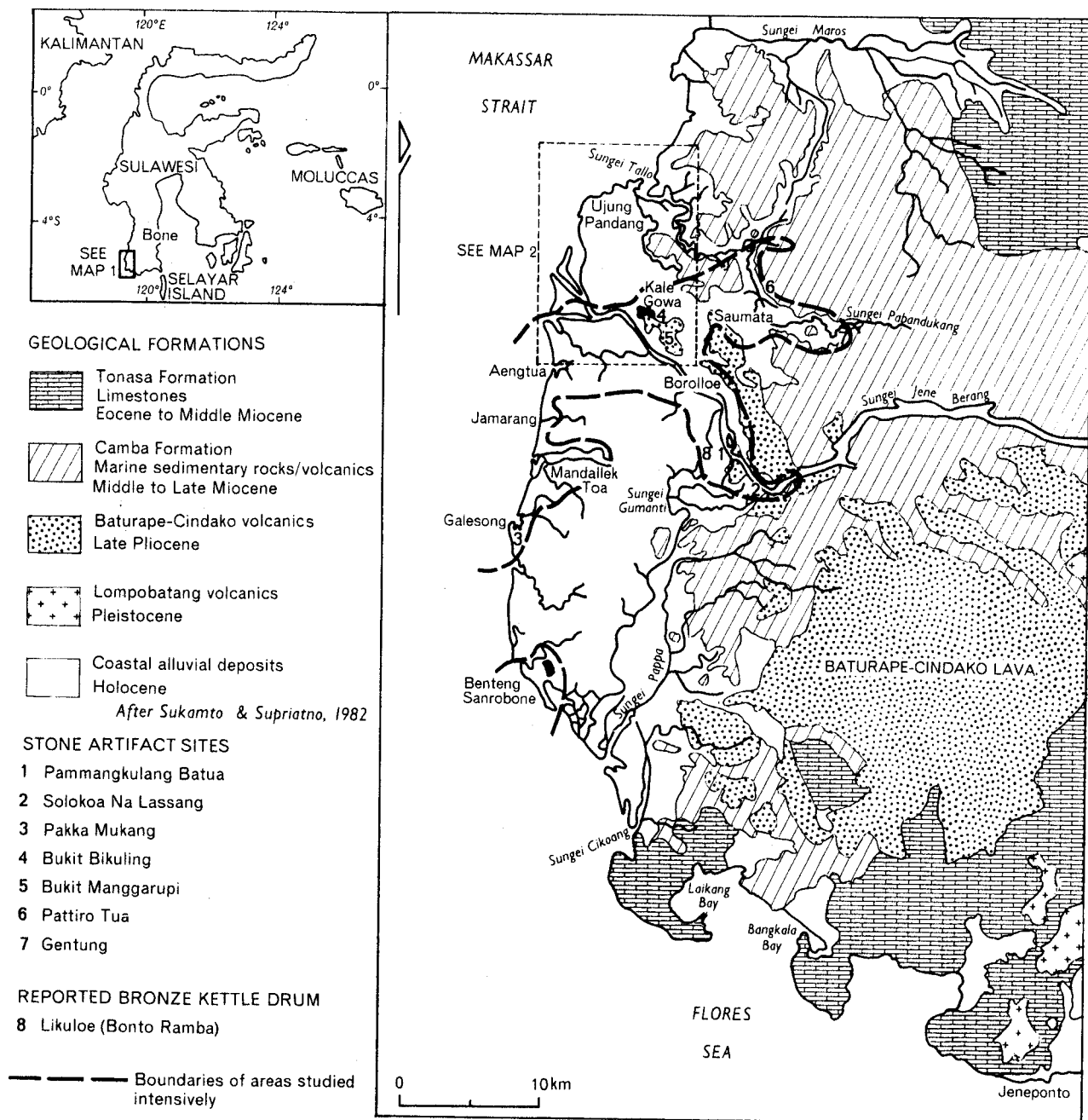


Figure 1. South-western Sulawesi: the study region.

THE ANTHROPOLOGICAL PROBLEM

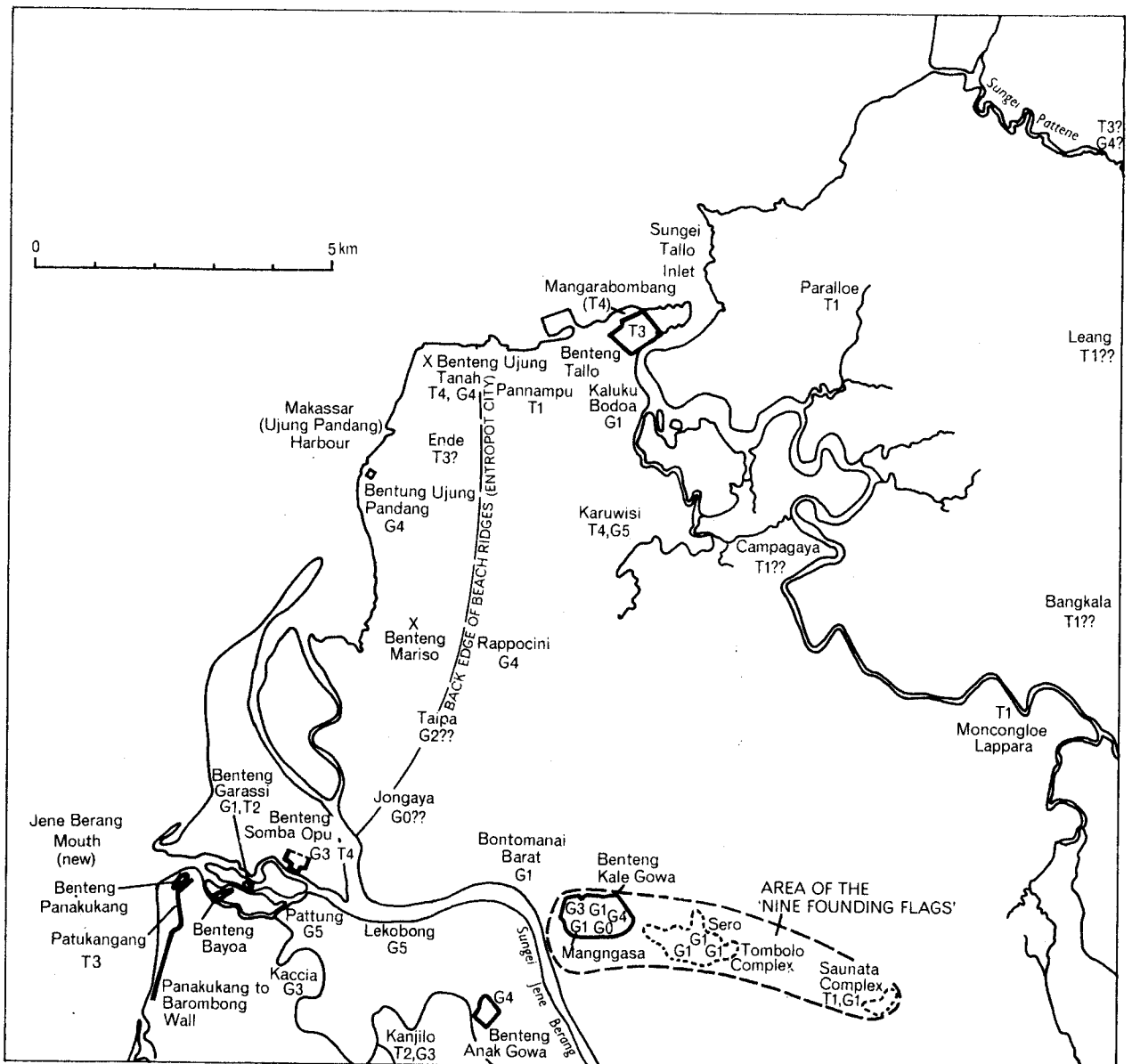
The South Sulawesi lowlands are populated by some five million Bugis and Makassars, two of Indonesia's most enterprising ethnic groups (Mattulada 1982). In addition, there are numerous transmigrant colonies of both groups throughout Island Southeast Asia. Makassars dominate the southern coastal strip of the peninsula and the northern two-thirds of Selayar Island, while Bugis dominate the lowlands to the north, into the foothills of the western central highlands of Sulawesi. The Bugis and Makassar languages form a subgroup with the western central highland languages (Mills 1975). While Makassar was the first language to split off from this subgroup, Makassars share with Bugis a very similar culture, including the Islamic religion (Mattulada 1982). Divergences from mainstream Bugis-Makassar culture survive only as enclaves in a few places in the peninsula.

Numerous Bugis and Makassar texts purport to describe events, genealogies and geo-political facts dating approximately between the fourteenth and seventeenth centuries (Mukhlis 1975; Caldwell, pers.comm.). Unusual in indigenous Indonesian historical literature for their factual perspective and down-to-earth style (Noorduyn 1965), these texts have attracted scholarly attention since the nineteenth century. Recently, Macknight (1975, 1983) has brought to bear a powerful explanatory framework for the origins of the state, based on modern anthropological theory. Two of Macknight's PhD students, Ian Caldwell and myself, are continuing his example from philological and archaeological viewpoints respectively.

Gowa-Tallo had three phases of historical development; firstly, the consolidation of Gowa's local power base; secondly, Gowa's expansion to incorporate Tallo and the other lowland polities within the study area; and, thirdly, the expansion of Gowa-Tallo's suzerainty throughout the South Sulawesi lowlands. These three phases can be identified in the 'Sejarah Goa' (Wolhoff and Abdurrahim, n.d.) and the 'Sejarah Tallo' (Rahim and Ridwan 1975), and dated according to the chronology given by Reid (1981:3; 1983:132-133).

Towards the end of the fifteenth century the control of various communities was divided between two brothers, Batara Goa and Karaeng Loe ri Sero'. The 'Sejarah Tallo' presents one legend concerning the quarrel of these brothers. The faction under Karaeng Loe ri Sero' included the communities within Tombolo and Saumata, due east of Benteng Kale Gowa (Fig. 2), and Borolloe some four kilometres to the south (Fig. 1). While Karaeng Loe was absent for a time these communities switched their alliance to Batara Goa.

The 'Sejarah Goa' presents a slightly different version in which the allies of Karaeng Loe ri Sero' consisted of Pannampu, Paralloe and Moncongloe, which all sit around the tidal reaches of the Sungei Tallo, and Saumata (Fig. 2). Batara Goa's triumphant allies included Tombolo, Mangngasa, and Bontomanai Barat (Fig. 2); and Paccellekang, Pattallassang, and Bontomanai Timur on the extensive eastern rice bowl



- 1 Bentengs (forts) and defensive brick walls mapped on the ground and/or visible on air photographs
 - 2 X – Gowa-Tallo Bentengs known from historical sources but not yet discerned archaeologically
 - 3 G0 – Gowa Toponyms older than Batara Goa
 - 4 G1 – Toponyms associated with Batara Goa
 - 5 G2-5 – Toponyms associated with the first, second, etc. direct descendants of Batara Goa
 - 6 T1 – Toponyms associated with Karaeng Loe Ri Sero
 - 7 T2-4 – Toponyms associated with the first, second, etc. putative direct descendants of Karaeng Loe Ri Sero
- N.B. '?' – Toponyms possible only; '??' – Toponyms doubtful; other Toponyms reliable

Figure 2. The region of the lower Jene Berang and Tallo rivers.

between Saumata and Gentung (see Fig. 1). Batara Goa additionally transacted marital alliances with Garassi, at that time the main port on the Jeneberang mouth, and with Kaluku Bodoa near the Tallo mouth.

Yet a third version of these alliances is suggested by the traditional titles of the nine councillors of Gowa (Mukhlis, 1975:60 Nurhadi *et al.* 1980:2; Reid 1983:119). The toponyms in these titles can all be fitted within a tight band between Kale Gowa and Saumata (Fig. 2).

The legendary quarrel between the two brothers may represent Gowa's incorporation of the previously independent Sero' chiefdom, or it may recount a succession dispute for the Gowa throne. In either case, by the end of the ~~fourteenth~~ fifteenth century Gowa had become a complex chiefdom with a densely populated core (the area associated with the nine councillors), and with allies who dominated the lowlands between the Jeneberang and Tallo rivers, from the coast to as far east as the Pabundukang foothills.

In the second phase referred to above the son of Batara Goa, Karaeng Tumapa'risi' Kallonna, joined forces with Gowa's allies to battle against Polombangkeng, Maros, and Tallo. After the Gowa victory, Gowa and Tallo formed an inviolable alliance, and the offspring of the rulers and their descendents closely intermarried. The nobility of Polombangkeng and Maros also married into this Gowa-Tallo lineage. After mopping up some local resistance, Gowa-Tallo then headed the ruling class of a complex chiefdom which now covered the whole of the study area.

Either in preparation for this last contest or for the next one, Tumapa'risi' Kallonna constructed the original earthen walls at the fortified sites of Kale Gowa and Somba Opu. By the mid-sixteenth century he had extended Gowa-Tallo suzerainty into the adjoining South Sulawesi lowlands. Succeeding Gowa-Tallo rulers continued the programme of building fortifications (bentengs) and extending conquests. Those polities which submitted were honoured with protection, and even a place in the royal family. However, fierce resistance was offered by Bugis kingdoms with similar expansionist goals, notably Bone on the east coast of the peninsula. The adoption of Islam at the beginning of the seventeenth century provided a new ideological banner under which all the Bugis and Makassar kingdoms could formally unite, driving dissension underground or overseas (Andaya 1981).

Communities near Kale Gowa and Sungei Tallo were incorporated into the Gowa and Tallo lineages during the second and third phases, often almost contemporaneously into both lineages (see the G's and T's with subscripts 2 to 4 in Fig. 2). The interest of Gowa-Tallo in external trade undoubtedly dated from at least this time, given the crucial benefits to be obtained for advanced military technology and trade-derived wealth (Reid 1981). The area shared by Gowa and Tallo included the Makassar harbour entrepot (within modern Ujung Pandang), which accommodated increasing numbers of foreign traders from the

mid-sixteenth century onwards (Reid 1983). The entrepot was strategically flanked by Benteng Somba Opu (see Fig. 2), which apparently became the new Gowa capital in the mid-sixteenth century (Mukhlis 1975:56-57), and by Benteng Tallo which was built later (Reid 1981:12). In the fourth phase, roughly between 1600 and 1660, the city became the principal entrepot connected to the Spice Islands of eastern Indonesia, particularly for traders defying the Dutch monopoly (Reid 1981; 1983).

By this time, Gowa-Tallo had developed all the attributes expected of a 'state' (cf. Wheatley 1983), but at a price. The entrepot city of Makassar had become Gowa-Tallo's major settlement, possibly in terms of both size and population density (Reid 1983:144-145), and certainly in terms of administrative institutions (Andaya 1981). The local rulers had become almost appendages in a city occupied primarily by non-Makassars, a city which was firmly fixed in the network of international trade extending to Europe (Reid 1981). Defensive efforts against the Dutch swelled the ranks of Bugis dissidents, who rallied under the local leadership of the Bone prince Arung Palakka. The Bugis joined with the Dutch naval forces under Speelman, and finally triumphed in 1669. The Gowa-Tallo state machinery was then divided between the victors; the Dutch took over the entrepot and some supporting hinterland areas, while Arung Palakka dominated the internal politics of the peninsula (Andaya 1981).

The Gowa-Tallo state clearly offers an example of secondary as opposed to primary state formation, as defined by Price (1978). Its exceptionally well-documented history renders it of particular relevance for theories concerning the origins of the state (cf. Macknight 1975).

SITE SURVEY STRATEGY

In my research proposal to the Indonesian government I stipulated that I would undertake archaeological field survey with little or no excavation (Bulbeck 1985). This strategy has allowed large areas to be covered in day trips from Ujung Pandang, closely co-ordinated with my provincial sponsor Suaka Peninggalan Sejarah dan Purbakala Sulawesi Selatan, and in the company of trained archaeological personnel residing in the city.

The site survey aims to reconstruct the evolution of the settlement pattern associated with the local ascendancy of Gowa-Tallo. My first field season has targeted the area of Gowa's core and periphery, as well as sampling the allied polities which enjoyed formal independence to the south. While the survey strategy has not been tailored to understanding the settlement systems of earlier phases, we have documented several prehistoric sites within the surveyed areas.

The major sites occupied during the various phases of Gowa-Tallo administration are locally renowned. These include Ujung Pandang's seventeenth century harbour area, for which detailed Dutch maps are an

added source of information. For such sites the archaeological problem revolves around the reconstruction of building histories and periods of occupation. A team from my national sponsor, the Indonesian National Research Centre for Archaeology, has taken the first systematic steps in this direction (Nurhadi *et al*, 1980). Officers of that institution and SSPHAP will jointly survey all these major sites, a project half completed at the time of writing.

To identify the sites occupying the second level in the Gowa-Tallo settlement hierarchy, I have assumed that these would mostly be mentioned as noteworthy polities in the 'Sejarah Goa' and 'Sejarah Tallo'. Many of the same toponyms can be detected in the Gowa-Tallo administrative documents, as analysed by Mukhlis (1975). Unambiguous location of the toponyms frequently depends on field data. Some obsolete names are not to be found on maps, but are still known in the locality, others have been used for local government administrative areas, whereas with others two or more places of equivalent *a priori* likelihood may bear the same name.

These toponyms identify areas of administrative control which can then be comprehensively surveyed. The areas covered so far are indicated on Fig. 1. These are: (i) the tributaries of the Sungei Tallo, (ii) the ricebowl northeast of Kale Gowa, (iii) the southern deltaic region of the Sungei Jeneberang, (iv) the Mandallek Toa site complex, and (v) Benteng Sanrobone and its immediate surroundings. Toponym-rich areas which have not yet been surveyed include the Maros lowlands, the central and northern areas of the kabupaten of Ujung Pandang, and the area between Sanrobone and Bangkala Bay.

Another survey strategy so far realised aims to relate human occupation to particular geomorphological features, and from this viewpoint we have also surveyed the coast from Aengtoa to Galesong, and along both sides of the Sungei Jeneberang up to the middle foothills (Fig. 1).

Field location of archaeological sites

In the densely occupied rural landscape of my study area fallow fields provide excellent archaeological visibility, but they infrequently coincided with earlier occupation centres. The key resource for site location proved to be information from the local farmers, direct descendents of the target population, whose present land utilisation rights revolve around the folkloric understanding of the past. In particular, the growing commercial interest in antiques since the Second World War has led to a great increase in illegal excavation, even though this regrettable practice was declared illegal by the Indonesian government about 15 years ago. Nevertheless, the survey archaeologist can at least record some information from previously buried sites thus located and brought partially to the surface. A team from my national sponsor demonstrated these points to me, before I embarked on my own programme, when they invited me on one of their field surveys on Selayar Island (see Wibisono 1985).

The SSPHAP team standardised the surveying, once an area was chosen, by stopping at every village shown on the 1920s Dutch maps, as well as newer villages along the roads in-between. Enquiries started with old Islamic graveyards and moved on to the issue of antique finds. These are the same type of site, since in the centuries immediately preceding the adoption of Islam the dead were generally buried with prized possessions.

Once a burial site was identified, the survey mapped the burial grounds and associated occupation areas. Ideally, the whole site would be surveyed until the fall-off in surface artefacts indicated that the borders had been reached. Owing to time limitations however, we generally made partial surveys, standardised to include zones of reported antique finds, Islamic burial grounds, saukangs (spirit dwelling places according to Bugis-Makassar tradition), particularly dense concentrations of sherdage, and zones with particularly good archaeological visibility which lay within the site's domain. We also mapped and documented the associated geomorphological and current landuse features.

Stone Tools

As a byproduct of the first fieldwork season we identified some 50 open sites with stone artefacts, including three with ground axes and a larger number with 'Toalean' tools. The documentation of open Toalean sites contributes to an understanding of the adaptations of these mid-Holocene hunter-gatherers. The flaking of small stone tools probably did not cease with the introduction of a horticultural economy, and sites dominated by earthenware pottery frequently contained a few stone flakes.

We made surface collections of between 40 and 675 stone artefacts at seven sites (see Fig. 1) The two largest collections, from Pammangkulang Batua and at Solokoa Na Lassang on the southern banks of the Jeneberang, were associated with small quantities of earthenware sherds. Unequivocally Toalean tool forms, as described by Bellwood (1985:195-7), dominate the Pammangkulang Batua collection. These also occur at Solokoa Na Lassang, along with larger tools, some of which appear to be significantly older. Pakka Mukang, about one kilometre from the sea at Galesong, produced a high density of artefacts possibly relatable to the Indonesian 'flake and blade technocomplex' (cf. Bellwood 1985:193), but with few diagnostically Toalean forms. We made the collection in a ploughed field which also held an extraordinary concentration of earthenware and tradeware sherds. The four smaller collections were on raised surfaces within Kale Gowa's ricebowl hinterland; Bukit Bikuling, Bukit Manggarupi, Pattiro Tua and Gentung all produced recognisably Toalean tools.

Early Decorated Pottery

Although known mostly for their Toalean stone tools, the Maros cave assemblages include pottery with geometric stamped and incised decoration (e.g. Mulvaney and Soejono 1970; Glover 1976). Fragments

with comparable decoration often turned up during our site survey, either as an infrequent element in Gowa-Tallo related sites, or in sites which appear to be older. Bellwood (1985:316) notes the lack of a chronology for the prehistoric culture history of South Sulawesi subsequent to the Toalean. Statistical analysis of our surface collections may allow an approximate dating of these early decorated wares.

In the study area, a tradition of secondary burial in jars may be roughly contemporary with this decorated pottery. Mulvaney and Soejono (1970:175-176) inspected two burial caves littered with sherds, and the associated human bones were subsequently shown to have been lightly cremated (Boedhisampurno 1982). SSPHAP has recorded ten open sites where people have reportedly exhumed jars containing fragmented human bone, also apparently lightly cremated. This tradition appears to have extended into the second millennium A.D. since some of the sites were associated with considerably quantities of gold, while others are adjacent to or co-incidental with burial grounds belonging to the succeeding tradition to be described below. It may also be that some of the unusual human remains recovered in excavations at Kampung Sompō, Takalar (Tjandrasasmita 1970) can be explained as secondary jar burials.

The Phase of East-West Extended Inhumations

East-west extended inhumations, usually accompanied by imported East Asian ceramics and iron or gold objects (see Tjandrasasmita 1970), have yielded the bulk of the illegally-excavated antiques from South Sulawesi. The tradition was prominent only around the southern coast, including Selayar Island, and also at Luwu on the gulf between the two southern arms of Sulawesi (Reid 1983). Controlled excavations which have produced such inhumations have been carried out at Kampung Malewang in Kabupaten Pangkajene Kepulauan and at Kampung Sompō (Tjandrasasmita 1970), at Batang Mata Sapo in Selayar (Wibisono 1985), and at Ulu Leang 1 in Maros (Glover 1976). I have not yet seen any evidence to date this tradition before the fourteenth century A.D., or even firmly before the fifteenth century, within the southwest corner of South Sulawesi. A new range of decorated earthenwares, characterised by open vessels with grooves or ridges around their upper exterior bodies (see Tjandrasasmita 1970), appears at approximately the same time as this burial tradition in the study area.

Although my site surveys and analyses are still incomplete, I would like to offer some tentative suggestions on the settlement pattern associated with this phase. On the raised surfaces which protrude above or flank the deltaic or swampy sawah belts, the density of east-west burial grounds approaches the density of old Islamic graveyards, and the two types of burial ground always occur close together, often on the same spot. The traditional sawah economy thus appears to have been well in place before the general conversion to Islam. Old Islamic burial grounds apparently unassociated with east-west extended burial grounds were also encountered on raised

locations in regions where rice is only a minor crop. These data may indicate a post-Islamic diversification of the economic base, and an expansion of communities into habitats which were previously considered marginal.

Some of the pre-Islamic burial grounds are very large. Examples include the Saumata complex (Fig. 2), Jamarang, Aengtoa, and Mandallek Toa (Fig. 1). One possible interpretation for these large sites is that daughter colonies had filled the immediate landscape but continued to use the central, designated burial ground (cf. Wibisono 1985). On an even larger scale several discrete burial grounds within a circumscribed area may be joined by signs of continuous occupation. Examples of this include Benteng Kale Gowa, the Sero/Tombolo complex (Fig. 2), Galesong, Benteng Sanrobone, and on a more dispersed scale the entire Mandallek Toa site complex. In these cases the individual communities probably regarded themselves as discrete lineages, but recognised a local hierarchy of authority.

The pre-Islamic burial grounds between Aengtoa and Galesong adhered quite strictly to the coastal inlets. In the case of Galesong, which was closely allied with Gowa-Tallo (Mukhlis 1975:65), the Islamic graveyards continued to spread from a centralised, pre-Islamic core region. Elsewhere the early Islamic burial grounds seem to have become more dispersed, a movement which in some cases may suggest a reduced degree of centralisation of authority. More generally, there are several major pre-Islamic burial grounds whose associated Islamic burial grounds are meagre - Saumata, Aengtoa, Jamarang - or completely absent as in the case of Mandallek Toa.

TOWARDS A MODEL OF GOWA-TALLO STATE FORMATION

Systematic surveys for archaeological sites have so far covered only a miniscule fraction of the South Sulawesi lowlands. The resultant lack of archaeological data has led in the past to an assumption that the Bugis and/or Makassars exploded recently into a spottily-occupied peninsula. The 1986/87 field season suggests a quite different background perspective, at least for the study area. This fertile area seems to have harboured a substantial population from at least the mid-Holocene onwards.

Horticulturalists may have inhabited the study area widely for quite some time, conceivably as far back as the time of Christ (cf. Macknight 1983). The evidence for this includes those first- and second-level sites in the Gowa-Tallo settlement hierarchy which have produced small quantities of early decorated pottery. Evidence from the Maros caves (Glover 1985) suggests the introduction of domesticated rice as early as A.D. 500. An increasing population and density of communities thus probably characterised the study area during the Christian era. Accordingly, a gradual insinuation of new elements may have guided social developments, rather than successive explosions of new cultures into a vacant landscape.

There has thus been a considerable time depth for the adoption of external influences by communities within the study area. The Moluccan spice trade appears to have been operating throughout the second millennium A.D. (Guy 1986:6), linking eastern Indonesia into the network of Old World trade. The first wave of East Asian export trade in ceramics occurred in the thirteenth and fourteenth centuries (Guy 1986), and the SSPHAP team found ceramics of this date in a wide spread of geographical contexts, even if generally in low quantities. Other indicators of external contacts include the Dong Son bronze kettle drum from Selayar (Bellwood 1985:283), and there are rumours of a similar drum found in Luwu (Abdul Muttalib, pers.comm.). At Likuloe, just west of Pammangkulang Batua (Fig. 1), we were told of the excavation by villagers of a bronze kettle drum one metre in height.

The 'Sejarah Goa' and 'Sejarah Tallo' trace the Gowa and Tallo lineages back to two brothers who parted after a quarrel. Reid (1981:3-4; 1983:135) suggests that this is not a factual account, but rather a legitimisation of Gowa's alliance with the Malay, Javanese and Bajau trading contacts introduced under Tallo auspices. Certainly, the Jonggoa toponym associated with the Gowa origin myth, and some of the toponyms which the 'Sejarah Tallo' associates with Tallo's first two kings, can be assigned to the Ujung Pandang/Kale Gowa area only with great difficulty (see Fig. 2). They do, however, form a cluster in the south, between Sungei Cikoang and Bangkala Bay (see Fig. 1). This raises the hypothesis that Tallo was originally a trading station based in the south of the study area during the fifteenth century, but which was attracted northwards with the new centralisation of local power under Tumapa'risi' Kallonna.

My field data suggest that, by the fifteenth century, communities with a sawah-based economy were installed next to suitable patches of seasonally-flooded ground throughout the study area (cf. Macknight 1983). The almost unlimited potential of wet rice for intensification (Geertz 1963) may have led already to the rudiments of agrarian state formation. Some of the territorially-based lineages may have had the capacity to call up large numbers of warriors. There may well have been intense competition to control surplus rice and the highly desired imports which could be acquired with that surplus (Macknight 1983). If wet season freshwater discharge determined local potentials for rice production, then the most centralised polities should have developed in strategic locations near major deltas, surrounded by allies who themselves may have been hierarchically organised. This picture appears to fit available descriptions of the fifteenth century Gowa kingdom.

During the fifteenth century Polombangkeng had developed further (Reid 1983:124), boasting seven brother kings from Jamarang southwards (Wolhoff and Abdurrahim n.d.: Verse 43). Bajeng, Jamarang and Mandallek appear to have been eclipsed after the early sixteenth century, whereas the four southern kingdoms (Lengkesa, Jipang, Katingang, and especially Sanrobone) enjoyed subsequent marriages or administrative linkages with the Gowa-Tallo aristocracy (Wolhoff and

Abdurrahim, n.d.; Mukhlis 1975:65,68). Benteng Sanrobone, the only brick fortress outside the Gowa-Tallo core region, has a layout very like that of Benteng Kale Gowa (cf. Suaka 1985:37-53; Nurhadi *et al.* 1980). These four southern kingdoms appear to have switched their alliances from Bajeng to the Kale Gowa area, possibly a crucial factor in the stability of the Gowa-Tallo ascent.

Reid (1983) has pointed out the natural advantages of Ujung Pandang as a seaport. Despite several changes in administration, the entrepot city of Makassar, first developed by Gowa/Tallo, has remained the major city of eastern Indonesia to this day. Gowa-Tallo's apparently meteoric rise in the sixteenth century (Reid 1983) may thus have resulted from an elixir blend of quickening trade interests in eastern Indonesia, and the establishment of an agrarian authority guaranteeing security and controlling a large agricultural surplus. I have presented a tentative case for a long chronology behind the development of these two vital elements within the study area. When the data finally amount to a satisfactory solution, Gowa/Tallo may become an important example for an understanding of the processes behind secondary state formation.

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