

REPORT ON AN ARCHAEOLOGICAL SURVEY
OF THE BALI-WITU ISLANDS,
WEST NEW BRITAIN PROVINCE, PNG

Report prepared for the West New Britain Provincial Government by:

Dr. Robin Torrence/Dr. Jim Specht
Division of Anthropology
Australian Museum
6 College Street
Sydney NSW 2010
Australia

Mr. Blaise Vatete
Adviser on Culture and Tourism
West New Britain Government
Kimbe
Papua New Guinea

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NOTE: This report summarizes PRELIMINARY results compiled immediately following fieldwork. For confirmed and accurate data, please consult publications.

SUMMARY

Between 29 June and 11 July, the three authors carried out an archaeological survey of the Bali-Witu Islands off the north coast of West New Britain. The aim was to review archaeological evidence previously reported, especially the spectacular carved stone heads and the stone arrangements on Bali, and to assess the potential of the islands for further archaeological research. Using a Kimbe-based yacht, the team visited six of the eight islands in the group: Bali, Witu, Ningau, Goru, Silenge and Vambu. Most of the time was spent on Bali Island, where 65 localities of archaeological interest were recorded. A very brief survey of the other islands yielded 37 additional localities. A detailed register will be presented in the final report.

The survey re-recorded the carved heads at Malangai, Bali Island, and identified at least another six definite and probable carved heads, and a report of two that were not seen. Hundreds of boulders with various forms of surface modification ('rock art') were also recorded, mostly on Bali Island. There are also reports of rock art on Witu Island but the team was unable to examine these due to time constraints. From our preliminary observations, we can propose three stages in the history of the rock art. The earliest form is represented by boulders covered with pecked holes ('cupules'). This is followed by curvilinear designs (circles, spirals, some be arranged to represent faces). Most recent are the rectilinear designs. It is not clear where the carved heads fit into this sequence, though they may be later than the second phase. The survey also recorded many boulders with small bowl-shaped, pecked depressions whose purpose is not known. These are found on beaches and at inland localities. Stone arrangements comprising a single seat or table as well as various groups of these placed in lines and circles were recorded throughout the group, but are particularly common on Bali. They are still relevant to the island peoples, who continue to make and use them.

Two sites with pieces of pottery were recorded: one each on Bali and Goru Islands. This pottery is plain, but could belong to the Lapita pottery series (about 2500-3200 years ago) that is found widely on West New Britain mainland and from the New Guinea islands south to New Caledonia and Tonga-Samoa. Perhaps the most interesting find noted is an obsidian stemmed tool of a type dated in the Talasea and Numundo areas to between 3500-6000 years ago.

Although the survey was short, it showed that the Bali-Witu group has extremely rich and varied archaeological remains that cover at least the last 6000 years. Further research work is definitely desirable.

The report concludes with six recommendations for the Provincial Government's consideration regarding the future care and protection of the group's cultural heritage. These recommendations cover (1) the care and protection of the carved heads of Bali; (2) more comprehensive recording of cultural heritage items in the group; (3) the raising of public awareness about the care and protection of the Province's cultural heritage; (4) the possibility of establishing local level 'culture houses'; (5) training of Cultural Centre staff; and (6) steps to recover a carved head from Bali that was illegally exported 30 years ago.

1.0 INTRODUCTION

- 1.1 This report summarises a twelve-day archaeological survey (29 June to 11 July 2002) of the Bali-Witu Islands that lies to the northwest of Willaumez Peninsula, West New Britain Province, Papua New Guinea. The team consisted of Dr Robin Torrence and Dr Jim Specht (Australian Museum, Sydney), and Mr Blaise Vatete (Adviser on Tourism and Culture, West New Britain Government).
- 1.2 The team spent three days travelling to and from the islands and between Bali and Witu. This allowed ten days for the actual survey work. Mr Vatete's participation was particularly invaluable, as he comes from Bali and has many contacts throughout the group of islands. His local knowledge and many personal contacts greatly facilitated the team's ability to cover ground quickly and ensured a better local understanding of the intended work than would otherwise have been possible.
- 1.3 This brief report is for the West New Britain Provincial Government. A longer, more complete, report will be prepared by Torrence and Specht in line with the conditions of their research permit as issued by the National Research Institute. The research on Bali-Witu was undertaken as part of a larger project led by Torrence into the cultural history of West New Britain, currently focused on Willaumez Peninsula. This project is affiliated with the National Museum and Art Gallery, Port Moresby.

2.0 AIMS OF THE SURVEY

- 2.1 Previous archaeological research in the Bali-Witu group was extremely limited. In 1967, Inge Riebe published a paper in the *Journal of the Polynesian Society* describing a group of remarkable carved stone heads at Malangai village, Bali Island. Riebe also referred to various other rock art and stone arrangements relating to the cultural history of the island. In 1974, Jim Rhoads spent just over one week on Witu and recorded information about ancestral sites and several obsidian scatters that might indicate former settlement sites. In 1985, Wal Ambrose (ANU) and Wally Johnson (Australian Geological Survey Organisation) spent one day on Bali checking a report of a possible obsidian source published by Jennifer Blythe in 1984. They showed that the obsidian on Bali was imported, most likely from sources on Willaumez Peninsula, and reported widespread stone arrangements and rock art, and occasional pottery fragments and old defensive earthworks.
- 2.2 We decided to focus on two main issues. The first relates to rock art found on Garua Island, near Talasea, where a group of boulders has designs pecked on their surfaces, some resembling faces, and a much larger group of boulders which are covered with an unusual 'art' consisting of small, rounded holes pecked into the rock surface and defined by us as 'cupules' ('little cups'). These cupules and the rock art are undated, but they appear

to be very old. Torrence noted that some of the carved heads on Bali published by Riebe also had these markings, and so the survey targeted the question whether there might be a link between the two islands. The second issue related to stone structures and arrangements on Bali. The structures consist of flat stone slabs supported on small standing stones to form tables or seats. The arrangements include standing stones. In 1985 Ambrose and Johnson commented on these structures, but did not have time to study them in detail. Before the 2002 survey, these structures appeared to occur only on Bali Island, though there might be a relationship with stone arrangements (unpublished) in the Kilenge villages at the western end of New Britain. The survey aimed to record and describe the structures on Bali and to find out whether they occur on the other islands in the Bali-Witu group. The third, more general, objective was to record any other information of archaeological interest, particularly following up the report by Ambrose and Johnson of pottery on Bali to see whether Lapita pottery (dated to about 2500-3200 years ago) is present.

- 2.3 These three specific objectives were linked with the general aim to assess the potential for future archaeological work in the island group.

3.0 THE SURVEY

- 3.1 The survey was carried out on foot. We visited some villages from all major areas of Bali, but time seriously restricted the amount of work that we could do on other islands. As a result, the majority of our data comes from Bali, but we have collected sufficient information from the other islands to form a general impression about their archaeological features and potential for future work.
- 3.2 We covered a reasonable sample of Bali, recording over 60 locations with archaeological features. These will be listed and described, together with those for the other islands, in the Register of Localities that will accompany the final report. The localities recorded include the carved heads at Malangai and several others elsewhere, rock art (especially cupules) at numerous locations, one site with pottery pieces, many boulders with smooth ground areas, large and small boulders with small bowl-shaped depressions that have been worked by pecking and grinding, and numerous stone tables and seats. We also recorded boulders that do not appear to have been modified, but which have names and significance to the local people and the locations of three ditches used in pre-colonial days to defend settlements.
- 3.3 The various forms of rock art consist of cupules; engraved designs made by pecking away the rock surface (usually curvilinear), scratched or abraded (usually rectilinear) designs, and the three-dimensional carved heads. By close examination of the boulder surfaces we were able to see that some cupules were almost certainly made before the engraved rock art. The scratched designs are very similar to the painted designs seen on several churches and related buildings on Bali, suggesting that this form of

rock art may be relatively recent in origin. Some of the boulders with carved heads have weathered cupules that look much older than the worked surfaces of the heads. We can tentatively suggest, therefore, that cupules are older than both the pecked and scratched designs and the carved heads.

- 3.4 At Malangai Riebe recorded six carved heads and a face. The 2002 survey added a further four heads or probable heads, three of which definitely have cupules on the top or back of the head. Two other heads were recorded at Penatabotong (Bali/39) and Nabaikele (Bali/18); that at Bali/39 has cupules on the top of the head. A report was received of two more carved heads towards the coast from Malangai, though shortage of time prevented inspection.
- 3.5 An unusual feature of the boulders with cupules is that they occur everywhere. They were noted on isolated large boulders in gardens and regrowth areas, as boulders eroding through the road surface, as groups within present-day and previous settlement areas, in streambeds, on beaches, on boulders with carved heads, on boulders with engraved designs, on boulders with grinding grooves, and on the top slabs and/or legs of stone seats and tables. On some seat and table slabs the cupules have been partially worn away, possibly by people using the slabs over a long period.
- 3.6 Boulders with grinding grooves occur on several islands. These were probably used for making tools such as stone axe blades that needed grinding to produce smooth surfaces. Some grooves are much wider than most stone axes, and several people suggested they were for making slingshot stones.
- 3.7 On Bali we were shown several lava bombs that have stories associated with them. One has cupules pecked on one surface.
- 3.8 We spent only one and a half days in southwest and southeast Witu, but this allowed us to record stone tables and seats, and standing stones. At Lama village we were shown a circumcision table that was recently made from rock slabs especially quarried for the purpose. In contrast with Bali, very few boulders with cupules were recorded. Several areas of rock art were reported to us, but we did not have time to visit these localities. On the beach to the south of the entrance to Peter Haven, we recorded boulders with at least 17 small bowl-shaped depressions pecked and ground into their top surfaces. The purpose of these bowls is uncertain, but their location on the beach suggests that they might have been used for preparing poison to catch fish.
- 3.9 Brief surveys were also carried out on Silenge, Vambu, Goru and Ningau Islands. On each island there are stone tables and seats, but cupules are extremely rare, and no pecked or scratched art was not observed, though more detailed work may show it is present. On Silenge there is a boulder used as a seat during circumcision rituals. On Vambu and Ningau we

recorded several boulders with grinding grooves. Several apparently unmodified but named boulders were also recorded on Silenge and Vambu. Three pottery pieces were found at Latongo on Goru, but since the soil at this locality has been brought from elsewhere by both natural and human agencies, it is unlikely that the finds indicate the presence of a pottery site there. A small test pit was dug down to one metre, but no pottery was found. The excavation ended on top of a mangrove swamp deposit said to be several metres thick. The pottery is probably derived from a nearby location, possible from the hill behind the current settlement.

- 3.10 We also recorded several small portable artefacts belonging to the past. Among these was an obsidian tool with a stem handle identical to tools found on mainland New Britain, where they are dated to between 3500 and 6000 years ago. This was found at Tamangone village on Bali. Its presence on Bali may indicate links with the Willaumez Peninsula area about 3500-6000 years ago. We recorded several stone pestles, stone axe blades and blocks of obsidian held by various people on Bali, Witu and Ningau. On Witu, we were shown a large 12-pointed stone club head found on Meto Plantation. Another complete club and one fragment of a club head of the flat disc kind are currently kept on top of a large boulder along with various other stone items in a hamlet just outside Makiri village on Bali.
- 3.11 In addition, there are many localities on all islands that are described as former settlement areas, including some dating to the 20th century (e.g. Karamata on Ningau Island). Some of these have obsidian pieces and marine shells on the ground surface. Obsidian is present throughout the islands, often as a low background scatter although it is occasionally visible on roads as more dense scatters.
- 3.12 In addition to recording cultural localities, we took samples of possible volcanic ash on Bali and Vambu. We hope to analyse these samples and identify the source volcanoes so that we can tie the Bali-Witu area into the sequence of volcanic ash falls available for the Hoskins-Kimbe-Willaumez Peninsula areas.
- 3.13 Apart from a small collection of obsidian flakes, pieces of European glass and a piece of European glazed pottery, the pottery pieces found on Bali and Goru Islands, and a stone flake from Witu, we did not remove any finds from the islands.

4.0 CONCLUSIONS

- 4.1 Bali stands apart from the rest of the islands in terms of the range and number of archaeological features recorded. This could be a result of the greater time spent there. We checked a report of carved heads on Ningau Island, but this proved to be incorrect. From our preliminary inspection, Witu does not have large numbers of boulders with cupules, though rock art reported on inland localities as well as a rock face at Cape Lama need

to be checked out. More detailed work on Witu may reveal that it is as rich as Bali in some archaeological features.

- 4.2 It is too soon to discuss in detail similarities between the rock art of Garua Island and Bali, other than to note that Bali has a much greater range of designs than Garua, as well as carved heads which are not known at present anywhere else in the western Pacific. However, the two islands share several engraved designs as well as cupules. It is important to note that many areas of West New Britain have never been archaeologically surveyed, so it is possible that similar features will be found elsewhere.
- 4.3 The stone seats and tables continue to have meaning for the people. On every island (except Vambu, which is presently unoccupied on a permanent basis), people have moved tables and seats from former settlement areas to their present village sites. On Witu, a completely new table has been constructed from newly quarried rock. On Bali, one householder has moved seats and a table from the house sites of his deceased father and grandfather. On Ningau, Goru and Silenge there are tables and seats and isolated boulders that were moved to the present village sites to commemorate Independence in 1975. It is therefore important to emphasise that these kinds of stone structures are not part of the past, but are a vital element of present day lives. Furthermore, the reuse of slabs and boulders with cupules in the construction of stone tables and seats suggests there has been a long history of re-using material features of the landscape.
- 4.4 On the basis of the stemmed obsidian tool found near Tamangone village, the time depth of human use of the Bali-Witu Islands may go back as much as 6,000 years. However, it is also possible that this tool was brought to Bali at a later date. What is of special interest is that because of the technology required to make such tools, it is unlikely to have been made on Bali. It is more likely to have been imported in its present form.
- 4.5 The presence of pottery on Bali and Goru confirms the observations of Ambrose and Johnson, though at this stage it is impossible to assign the 2002 finds to a specific pottery style or period.

5.0 RECOMMENDATIONS

- 5.1 During the survey the team Torrence and Specht discussed with Vatete several aspects of the cultural heritage of the islands that could usefully be pursued further. We present six of these here as recommendations for consideration by the Government of West New Britain.
- 5.2 On Bali Island we noted that local people have modified several of the carved heads and engravings at Malangai since Riebe recorded them. This modification is usually in the form of redrawing of lines with a stone or metal implement. The result often changes or obscures the original prehistoric shapes. Continuation of this practice may seriously damage the

carved heads. We also noted that the rock from which they are made is relatively soft and easily damaged.

- 5.3 These heads are listed as items of national cultural significance on the Papua New Guinea National Cultural Property Register. In our opinion, the carved heads of Bali are of immense international importance, as they are unique examples of earlier art forms of the Pacific Islands. They show a remarkable range of forms and styles, and have been compared by some authors with the better known (and more numerous) figures of Easter Island.
- 5.4 **Recommendation 1:** Therefore, we suggest that the West New Britain Provincial Government consider a program to protect the carved heads at Malangai, Bali and the other rock art of the Bali-Witu group for future generations. Such a program should be carried out in collaboration with the local communities and the Local Level Government of the islands, as well as with appropriate national and perhaps international bodies involved in cultural heritage care and protection. A useful preliminary step would be to deter local people from further modifying the carvings and engravings.
- 5.5 **Recommendation 2:** Our time at Malangai was very restricted and our survey can only be regarded as partial. A more thorough survey and recording of the stone features of the village should be undertaken and a detailed written and visual inventory compiled. This would need full community support and collaboration. It should include information about the original positions of the major boulders and heads, as many appear to have been moved in recent times. The inventory should also record the several lines and groups of boulders in the village. It would also be of great benefit to extend this inventory to the whole of the island.
- 5.6 **Recommendation 3:** The modifications to the Malangai carved heads are not so much a matter of defacing as a lack of understanding among the local community about the significance of these items in the broader national and international contexts. The Provincial Cultural Centre is an ideal organization to promote public awareness of the significance and cultural value of such items and could play a major role in recording heritage sites and their associated information. Such a project could be conducted in conjunction with the appropriate national bodies involved in the care and protection of Papua New Guinea's cultural heritage.
- 5.7 **Recommendation 4:** We were struck by the nature and diversity of portable items that remain in the island group. While some people believe the best way to protect and care for such items is to put them into a central museum, we suggest that such items have more cultural significance and value if retained on their islands of origin. We recommend, therefore, that the West New Britain Provincial Government consider ways to establish 'culture houses' at the local level, in which such items can be held and

protected. Such a project could be run in conjunction with the Local Level Government and the National Museum and Art Gallery in Port Moresby.

5.8 *Recommendation 5:* The successful implementation of the first four recommendations would depend on the relevant provincial officers having the necessary skills and experience. We therefore recommend that the West New Britain Government contact the National Museum and Art Gallery in Port Moresby to work out how this might be achieved. One of the responsibilities of the National Museum is to provide assistance in heritage matters at the provincial level.

5.9 *Recommendation 6:* Both in Malangai and elsewhere on Bali we were asked about the actions of a former manager of Bali Plantation, Porath, who removed a carved stone head from the island in 1972 and exported it to Sydney. Several people, including people in Malangai, expressed anger and concern about this, even though it occurred 30 years ago. In 1985 Specht was approached by the National Museum and Art Gallery to obtain information about the export, for the head was then in Sydney and on offer for sale at a very high price. Three museums to which it was offered declined to acquire it. At that time there were no legal grounds on which the Australian authorities could act to ensure the return of the head to Bali Island. The National Museum and Art Gallery in Port Moresby holds a file on the matter, and a full account of it is included in the National Museum's report to the West New Britain Provincial Tourist Bureau *Places of cultural and natural heritage significance in West New Britain* (1992). We recommend that the West New Britain Provincial Government contact the National Museum and Art Gallery to explore ways of tracking down the present location of the head and to seek its return to Papua New Guinea.

ACKNOWLEDGMENTS

The team expresses its sincere thanks to the people of the Bali-Witu Islands who readily accepted our presence and allowed us to pursue the survey. They provided hospitality, understanding, collaboration, and support without which the work would have been impossible. There are too many people to name individually and often there were so many people with us that it was impossible to record everyone's name. To all of them, our thanks for their friendly assistance.

Torrence and Specht wish to express their strong personal thanks to Blaise Vatete for his enthusiastic participation and collaboration throughout the survey, which included many local negotiations and making arrangements for us to visit localities. Without his local knowledge and contacts, our work would have been much reduced and certainly not as successful.

We thank the West New Britain Provincial Government for permitting Vatete to join the team for two weeks at the time of the election process when there were other pressing tasks to be done and for granting us permission again to work in

the province. We acknowledge the National Museum and Art Gallery for granting continued research affiliation, and the National Research Institute for assistance with the research permit.

Finally, we thank Frank Lewis (project manager, OPIC, Nahavio) and Lesley Lewis who provided us with transport on their yacht, looked after our daily needs, and did their best to alleviate the effects of the southeast season winds and seas.

Caption for Tables 1-6

These tables list the various features recorded at each locality on each island. Often a locality has several features (for example, a boulder with cupules may also have engravings and ground areas: a table or seat can also have cupules). Several entries are put in brackets, which indicate that we heard about these features but did not directly observe them. Some localities about which we received information, but were unable to visit, are not included (e.g. two carved heads reported to be at a settlement in the coastal area south of Malangai). Note that there are no entries for Bali/17 and Vambu/2, which are tephra exposures without cultural associations, or Vambu/11, which is a coastal water source.

- A: old settlement site, with or without surface finds
- B: line of a former defensive ditch
- C: stone table and/or seat
- D: butchery or serving table/slab/boulder placed on the ground or on legs
- E: stone arrangement used for sorcery
- F: circumcision table
- G: standing stone
- H: boulder group
- I: boulder with cupules
- J: boulder with carved head
- K: boulder with curvilinear engraved designs
- L: boulder with rectilinear engraved designs
- M: boulder with grinding grooves
- N: boulder with flat or concave ground surfaces
- O: boulder with a bowl-shaped hollow
- P: boulder with a name and/or story
- Q: pottery pieces
- R: isolated finds

Definitions:

A: These localities were usually identified as former settlement areas (hamlets, villages) by our guides. Most have surface finds of shells and obsidian pieces, as well as boulders (in groups, seats, tables, etc).

B: These are locations where there was formerly a ditch for defensive purposes. Today, these ditches are in-filled and barely, if at all, distinguishable from the surrounding ground surface.

C: These are stone slabs and small boulders arranged to form tables or seat, usually with a flat or flattish slab on small standing slabs as 'legs' or on small boulders as 'feet.' The distinction between tables and seats is generally based on local advice.

D: Some slabs and tables were described as having been formerly used as for executing and butchering captured enemies. These are usually outside or on the edge of former settlements. Similar slabs on the edge of or within former settlements were described as tables for serving cooked food at feasts.

E: These are slabs or boulders, occasionally on small feet, described as places for conducting sorcery.

F: Some boulders were identified as being used as seats for boys undergoing circumcision.

G: Standing stone are boulders or slabs set vertically in the ground. They vary greatly in height up to 2m. Smaller ones could be legs from disassembled tables.

H: Some clusters of boulders appear to have been grouped together in lines or in circles, perhaps as a result of clearing space for village activities. Some groups include boulders with engraved designs, cupules, grinding grooves, bowls and ground areas.

I: Cupules' are small rounded depressions formed by pecking and/or grinding in the surface of slabs and boulders. They are round in plan and rounded to conical in profile. They are usually small, 15mm to 30mm in diameter, but occasionally larger ones occur. Cupules can occur singly or arranged in groups, applied to table tops, table legs, seats, or feet, associated with carved heads, engravings and bowls. Often cupules occur in large numbers; the boulder at Bali/36 has about 1000 cupules on a surface 180cm by 150cm, but other boulders have less than 10. Cupules often extend to and over the edge of the flat surfaces and are found on both horizontal and vertical surfaces. Local interpretation suggest that cupules were made for holding the *Canarium* (tok pisin: *galip*) nut while cracking it open, but their positions on vertical surfaces makes such a suggestion highly improbable. In addition, no one could explain why it would have been necessary to make hundreds of them on a single boulder surface. In addition, the depressions created by nut cracking that we observed were much smaller and more irregular than what we have defined as cupules.

J: Carved heads are boulders that have been sculpted to form a human-like head. The artist used the natural shape of the boulder, particularly the reidge formed by the junction of two surfaces, to form the nose, perhaps to reduce the work required to obtain the correct shape. On some of the heads at Malangai (Bali/7) the worked surfaces appear to be much fresher than the unworked surfaces. Several boulders with carved heads are heavily weathered, but others illustrated by Riebe and that at Penatabotong appear relatively fresh. Although not strictly a carved head, one small boulder at Malangai is included here. It has two small but deep, circular eye-like hollows, with a curved line above and two pairs of straight lines running down from them.

K: Engravings with curvilinear designs were formed by pecking away the surface of a boulder to form a rounded groove. The designs include single circle, concentric circles, oval and spiral forms. Occasional straight lines also occur. Some designs appear to cut across cupules and therefore must post-date them.

L: Some engravings with rectilinear designs were formed initially by pecking, but often the designs appear to have been formed or enhanced by scratching or rubbing the surface to produce narrow angular lines. These form multiple parallel lines, triangles, squares and rectangles, some with diagonal lines dividing them internally. A few curved elements also occur.

M: Some boulders have smoothly ground grooves with a rounded to angular base V-profile. They vary in length but most are in the 20cm to 30cm range. Grinding grooves are found in a range of contexts, frequently on or near other boulders with smoothly ground areas (see feature N). The grooves occur mainly on fine-grained volcanic rocks that are different from the most common rock types in the local area.

N: Some boulders have flat or concave ground or smoothed areas that often form small hollows. Often these have partially removed some cupules. In some cases the smoothed areas may be the result of generations of people rubbing the boulder surface by sitting on them. The ground areas might have been used for grinding flat or flattish objects such as axe blades. The ground areas vary greatly in size and shape.

O: Boulders with bowl-shaped depressions occur on beaches and at inland localities. Although placed together here as a single feature, they may in fact constitute three distinct groups. Those at Bali/46, Witu/12 and Witu/13 occur on boulders that lie within the intertidal zone. They are circular or oval in plan, from 18cm by 12cm to 46cm by 32cm across the top, and range in depth from 4cm to 12cm. Those noted off beaches occur on the tops of large and small boulders. They are mainly rounded in plan and profile, and show a similar range of sizes to those on the beaches. Several of the smaller boulders with bowls at Bali/57 are light enough to be portable, but others on boulders are far too heavy to be moved with ease. One bowl at Bali/12, is on a boulder 48cm high and 54cm in diameter that appears to have been roughly shaped by pecking away part of the boulder sides. Its bowl is 22cm in diameter and 8-10cm deep. At Bali/7, a rounded boulder in area D stands 22cm high and is 60cm long and 45cm wide. The shallow bowl ground on top of it is 20cm in diameter and 5cm deep. The third group includes small bowl forms on the sides of boulders. These bowls are eccentric in form, usually with the rounded base offset from the sides. Some (e.g. on at Bali/19) are positioned below a vertical channel, as if to catch something poured down the channel.

P: These are boulders without obvious signs of human modification that have names and/or a story, or are said to be the seats of former bigmen. They are often over 1m long, but one at Bali/32 is less than 50cm long.

Q: Pottery fragments were found at only two localities: Bali/55 and Goru/2.

R: Isolated finds are items that are held by various individuals who have found them in village or garden areas. While the names of the original find spots could sometimes recorded, limited time did not always permit inspection of these areas. The finds include stone axe blades, lumps of obsidian, a stone club head, stone pestles, and an obsidian

stemmed tool. At Bali/58 there is a collection of over 20 such finds grouped together on a flat-topped boulder. This group included a flat disc-shaped club head and a fragment of a similar one, part of a bark cloth beater with incised lines placed in a rectilinear grid, two axe blades, several pestles and handles, a stone ball, and ten small lava bombs.

Table 1[illegible]

Bali/30			x				x			x		x
Bali/31		x				x	x					x
Bali/32										x		
Bali/33		x				x	x					
Bali/34		x				x	x		x		x	
Bali/35										x	x	
Bali/36							x					
Bali/37									x			
Bali/38						x	x		x		x	
Bali/39						x	x	x			x	
Bali/40							x					
Bali/41		x	x			x	x	x		x		
Bali/42		x						x				
Bali/43		x										
Bali/44		x					x	x				
Bali/45		x				x			x			
Bali/46							x				x	
Bali/47							x					
Bali/48							x					
Bali/49		x					x					
Bali/50						x	x					
Bali/51		x										
Bali/52							x					
Bali/53	x					x	x				x	
Bali/54						x						
Bali/55	x											x
Bali/56						x	x				x	
Bali/57						x	x		x?	x?	x	
Bali/58		x				x	x				x	x
Bali/59		x				x						
Bali/60							x					
Bali/61						x	x					

Bali/62			x	x		x	x		
Bali/63	x		x		x			x	x
Bali/64	x			x	x	x	x	x	x
Bali/65	x				x				
Bali/66				x	x				

Table 2[illegible]

Table 3

[illegible]

