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A SHORT SITE SURVEY IN WESTERN SAMOA; PRELIMINARY RESULTS

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Fieldwork in the Lau Group, Fiji, in the late 1970s, led the author to question the surveys and interpretation of previous researchers in American and Western Samoa, with regard to inland settlements in both these countries (see Best 1992: 40-44).

A research proposal to investigate a selected number of these on Upolu was submitted, in 1991, both to the Government of Western Samoa for approval, and to the National University of Samoa for any desired student participation. The project was finally achieved in August 1992. Of the five sites investigated, one had been severely disturbed by plantation work, one was only briefly visited, and the other three were found to differ significantly from their maps or descriptions in previous publications. The locations of the resurveyed sites are shown in Figure 1.

INTRODUCTION

During the course of a number of site surveys in the Lau Group, Fiji, between 1975 and 1978, forty seven fortifications were found and mapped (Best 1989). These fell into three main types, listed in order of increasing age

1. Coastal ring ditches
2. Inland terraced forts on rounded volcanic hills
3. Coastal fortifications on rocky limestone ridges

All these types, although very different in construction and location, had one aspect in common. This was the importance of the central or highest part of the site, which was not only the most heavily defended, but was where specialised pottery was found, an indication of chiefly or priestly status.

The limestone ridge sites in the Lau Group were unusual in that they contained a great deal of stone work; rock walls terraces etc. They also differed from the other forts in that basalt adzes were found on them which chemical testing showed came from Tutuila in American Samoa, and specifically from a quarry behind the village of Leone (Best et al. 1992).

This quarry, Tatagamatau, was relocated and mapped in 1985 (Leach and Witter 1987). Described as a fortified quarry, the ground however continued to rise up to the central hills, and it would have been an easy task to overrun the

single small ditch that was said to be the rear defence. In 1988 the author investigated the area above the site, and mapped the complete fortification, of which the quarry spur was only a part (in 1991 and 1992, as part of the present project, two more fortifications in American Samoa have been mapped, one of these also with a large quarry within its boundaries).

Many of the West Samoa inland fortified sites described or mapped by Golson, Green and Davidson in the late 1950s and early 1960s resembled the initial interpretation of this Tutuila fort. There was neither a high area within the defences, nor any feature at the rear or uphill part of the site protecting it from an inland attack.

Four of the inland hill sites mapped or described in the West Samoa archaeological project, and one flatland defensive feature, were selected for a very brief resurvey. These were

1. An earth defensive wall in WESTECs Vailele plantation (Green 1969:101).
2. Tula-i-pule, a collection of terraces and ditches along a ridge inland from Luatuanu'u village (Davidson 1969:193-195).
3. Luatuanu'u, a fort inland 4 km. from the village itself (Scott and Green:205-209)
4. Mafafa, another group of terraces and ditches, described as a fort, between Falelatai and Lefaga in south-west Upolu (Golson 1969:17).
5. Mt. Vaea. The spur that runs northward down into Apia, with the lighthouse on the end, had been described as being terraced (Golson 1969:17).

THE SURVEY

This was carried out between 7 and 15 August 1992. Equipment used was a Sunto compass and clinometer, two tapes (100 and 30 metres), and a bush knife. A guide was obligatory for Tula-i-pule, and one was provided for Mafafa; the remaining sites were visited alone, save for Luatuanu'u where three University of Samoa students came to see the fort. All mapping was done by the author. Funding for the project was also provided by the author.

THE SITES

Vailele plantation. This was visited on the afternoon of 7 August, after permission had been obtained from WESTEC. An earth bank, over 500 metres long, runs across the plantation between arms of the Fagali'i and Lafalafa streams (site SU-Va-41). Just to the west, between the Fagali'i and Vaivase streams, are two such defences, between which is a concentration of mounds, possibly related to these ditch and bank systems. It was expected that another ditch and bank might exist inland of site SU-Va-41, enclosing a similar area.

Figure 1. Location map, showing re-surveyed sites.

The local topography suggested that the most likely place for such a defensive structure would be some 1500 metres inland, where the two steep valleys on either side of the ridge came to within c. 100 metres of one another. Unfortunately at this location a number of plantation roads have been bulldozed through, and it is not possible to say whether any prehistoric feature existed there. A 4-wheel drive track was followed inland for another c. 3 kilometres, which by then was well into the hills. Although several possible prehistoric features were seen, such as terraces, nothing was located that could be related to the ditch and bank on the flats below.

A more intensive search, down over the sides of the ridge, looking for the ends of ditches or banks that had escaped disturbance, might produce results. Until this is carried out, the precise function of the ditch and bank complex in the Vailele plantation remains unknown.

Tula-i-Pule. This is a collection of some 15 terraces and six ditches, strung out over about 1½ kilometres along a gently sloping ridge immediately inland of the west end of Luatuanu'u village (sites SU-Lu-25 to SU-Lu-40). This was visited on 10 August. Unfortunately the name of the site is not known in the village today, and despite being shown where it was, the guide insisted on going to the other end of the village and working back across the numerous valleys that run to the coast. After 2½ hours we had got back to our starting point, from where a short climb took us to the site. Only two hours was available for examining the ridge, and only about 500 metres more of this, inland of the last ditch and bank, was covered.

Although some modified areas were found along the ridge inland of the main ditch and bank, no rear defences were located. It is possible however that these do exist, in an area not yet reached.

It was found that the site is more extensive than that mapped by Davidson. On a side spur about half way along, leading down east to the Sapule stream, are at least four terraces; two 25 x 7 metres, one 15 x 8 metres, and one 10 x 5 metres. It is probable that other side spurs running off the main ridge have also been terraced.

At present it is unclear what the final shape of the complete site will be. Several days survey work will be needed before this can be established.

Luatuanu'u. A large fortification about 4 kilometres inland of Luatuanu'u village, between the headwaters of the Sapule stream and a branch of the Namo river (SU-Lu-41). This had been mapped by S. Scott in early 1964, and minor excavations into selected features were carried out during this and the 1965 season. A radiocarbon date of 1500 ± 80 B.P. was obtained from the lowest layer

of build up in the large defensive bank on the north end of the site. This was the first fortification in the Samoa Group to be investigated on such a scale, and has influenced subsequent research on such sites (e.g. Leach and Witter 1987:38).

The site as it was presented and described by Scott and Green did not resemble those mapped in Fiji, in that there appeared to be no flattened high point within the defences, and no indication of any major defence to the rear. If the ridge continued to rise behind the site then the rear ditch would have been insufficient to stop an attack and the site could have been overrun, as the group of terraces further down the ridge faced the north, and were constructed to impede access from the seaward side. It had been suggested (Best 1992) that the site might be larger than the area mapped, the extra length of ridge incorporating both these missing features.

The fort was visited on August 11, for approximately three hours. The rear of the site was found to differ significantly from the situation described by Scott and Green. The length of flat topped ridge between the terraces and the rear ditch, shown as sloping at 8° in the original section, is actually almost level (1.5° slope). In addition, the ridge inland of the rear ditch narrows and runs downhill at 10° for 65 metres before starting to rise again to the main range behind. At this point too the valley heads on either side of the ridge come together, and the side slopes of the narrow ridge are very steep (c. 60°).

The addition of this new data puts the site in a different context (Fig. 2). There is a level high point, and this is the most strongly defended part of the fortification. The pinching together of the valley heads, and the 65 metre uphill slope along the narrow rear ridge to the back ditch, result in an almost impregnable inland defence. This topographical situation is probably the main reason why the fort was situated there in the first place. Any of the ridges running down to the coast in that area can be easily defended against attack from the seaward side, by merely throwing a ditch and bank across any possible access way. Rear defences are harder to come by, as the ridges continue to rise as they run back up to the tops of the main range, some kilometres further inland.

An examination of the original levels (on file in the Auckland Museum), show that the section, drawn separate from the original plan (pers. comm. R. Green), was incorrectly transferred to the site map. This resulted in an exaggerated inclination for the whole site; the correct orientation has been added to the original map (see insert Figure 2). The actual vertical distance as surveyed between station BM2 (50 metres inside the main bank on the north end of the site) and station 14 (above the ditch on the south end of the site), is 35.64 metres ($115'10''$). In the Scott and Green map this distance is 82 metres ($267'$).

Luatuanu'u is therefore confirmed as a discrete fortification, following the pattern of most such sites in this area of the Pacific.

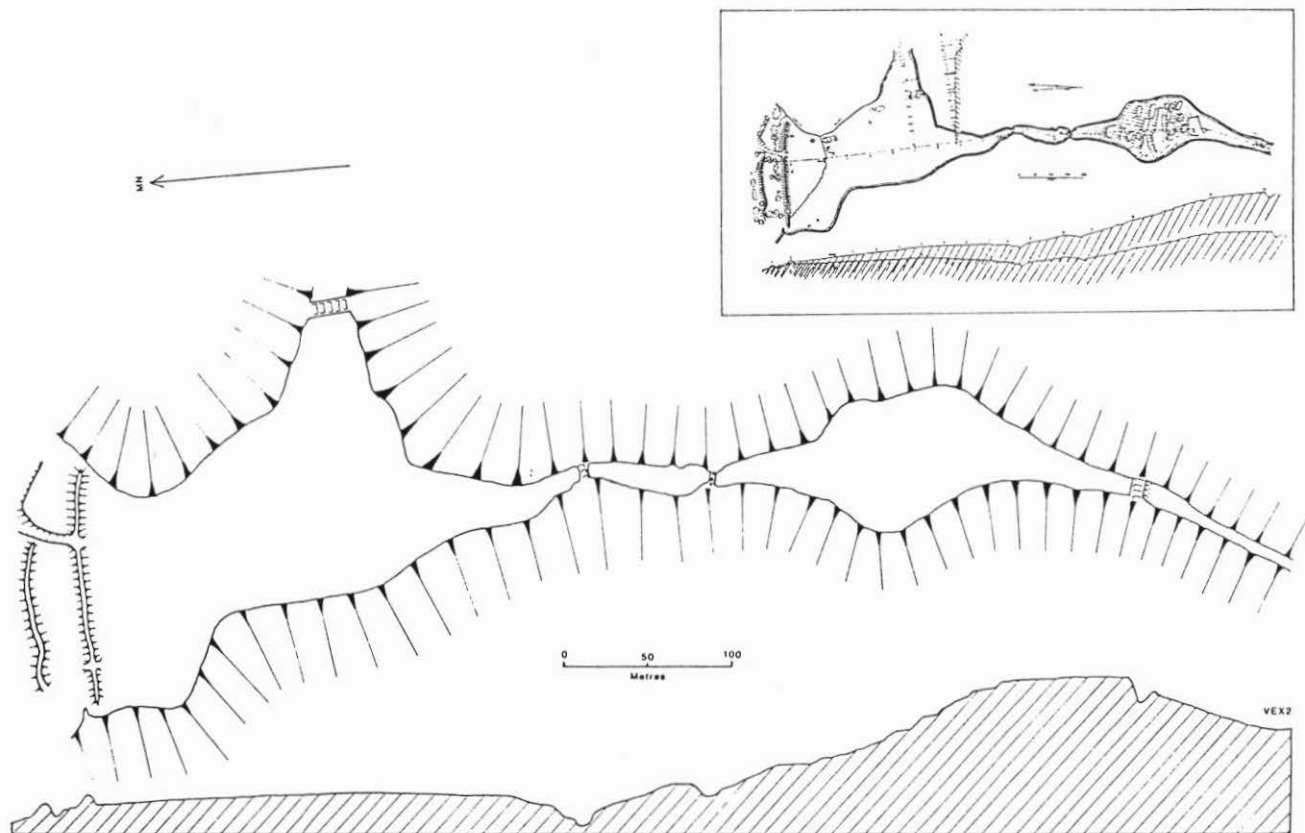


Figure 2. Luatuanu'u (site SU-Lu-41). Insert shows original map (Scott and Green 1969; opp. 205), with the addition of the correctly oriented (lower) section.

Mafafa. This is described as a fort, and was visited by J.Golson in 1957 and R. Green in 1966. Both recorded ditches, banks, terraces and scarps running across a ridge overlooking the pass between Falelatai and Lefaga. Both also complained about the weather and the terrain, and this may have contributed to their failure to continue on up the ridge to the top of the hill.

The site was visited for 4 hours on August 14. The general appearance of the hill, which had a large flat area on the top, with some four main ridges or spurs running up to this, had suggested that the ridge described by Green and Golson was only a part of the whole site (Fig. 3).

The survey was made extremely difficult by the damage resulting from Hurricane Val, which had left a tangle of fallen trees covered with mile-a-minute creeper, especially on the very top of the site. While traversing this two slightly higher areas were located, on the north and south sides of the top, and parts of several stone features were found; these were stone lines and also a built-up edge to the top at one point.

Three of the main side ridges were examined. That to the north west had a long flat area before it fell away to the valley below, and although the vegetation was again difficult to penetrate two more stone features were seen, one of which ran for some 7 metres. The descending ridge was examined for only c. 50 metres past the end of this flat section.

The ridge to the south west was followed for some 300 metres, and five terraces were located along this. It is likely that similar features continue further down the ridge.

Between these two ridges was a smaller spur that was not examined. A gently sloping basin between this and the north west ridge may well have been part of the prehistoric site.

The south east ridge was descended on the way down from the site. Some four terraces and two long flat stretches of ridge top were found, and a large defensive ditch and bank, the latter at a distance of 400 metres from the top. Two other possible small side ditches were noticed further up the ridge, but these were not closely examined and could have been slips or tree throws.

Although the survey was far from satisfactory, enough features were found to confirm that the entire hill is a fortification. It is likely that more defensive features; terraces, ditch/ bank systems etc. will be found further down the other ridges. The north east trending ridge, originally visited and described by Golson and Green, is the most heavily defended due to its relatively easy accessibility; it is from here that attacks would have been most likely.

One of these defences however has probably been misidentified. The large cutting right in the saddle itself, through which the inter village trail runs, was

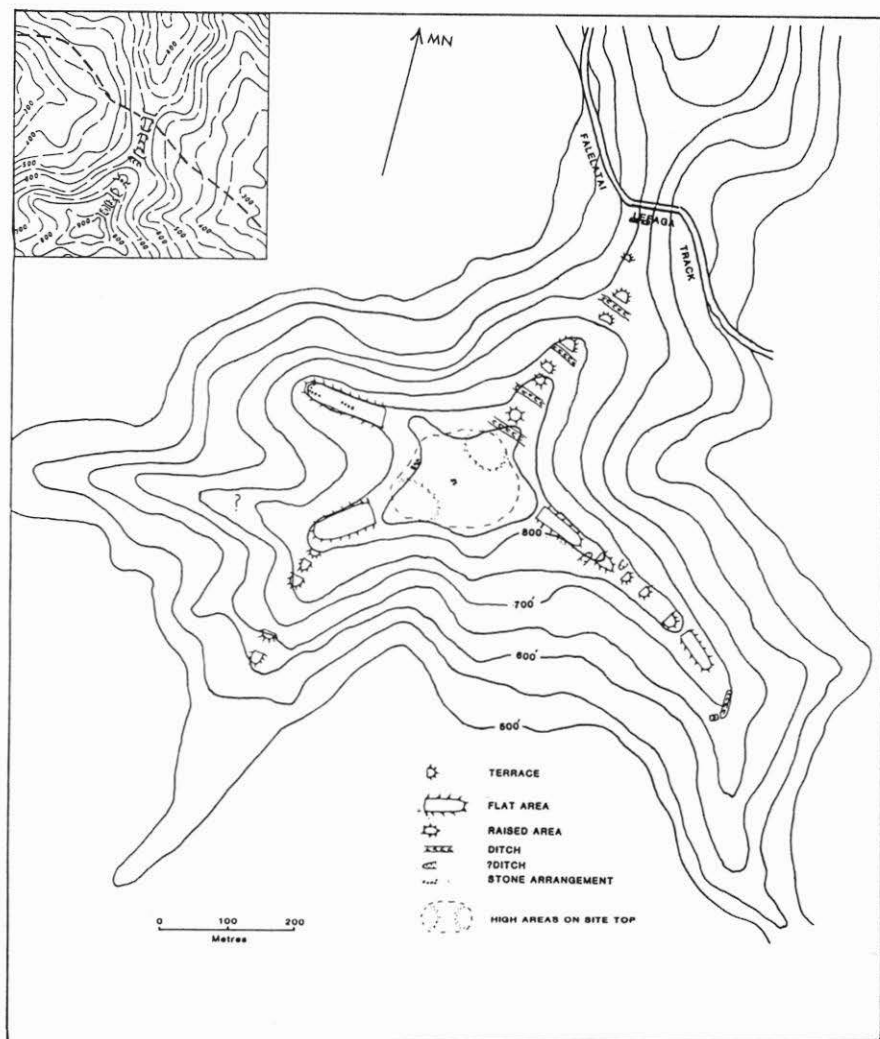


Figure 3. Mafafa. Insert shows original map (Golson 1969;17)

interpreted by Green at least as a defensive ditch. Such a position however would provide little in the way of protection. A more realistic explanation is that it is indeed just a road cutting.

The survey has shown that Mafafa is a large fortification, built on a hilltop that has more than a passing resemblance to a huge star mound. Unfortunately, due to the tangle of fallen trees left by Hurricane Val, it will be some time before the site can realistically be mapped in full.

Mt. Vaea. In J. Golson's 1957 report what were classified as defensive earthworks were noted on the northward trending ridge that runs down from the peak (where the mast now stands) into the back streets of Apia itself. No attempt was made at that time to investigate further on the hill.

Mt. Vaea was visited on August 8, 12, and 15. The survey was concentrated along the top ridge, and down two spurs on the east side of the hill. The main north trending ridge was not examined, save for where the mast access road crosses it near the top; here terraces were found. The results of the survey can be seen in Figure 4.

All high points along the ridge top were found to have been modified to some extent, usually into terraces or flat areas, but with some defensive ditches. The largest of these modified complexes was on the north side of Mt Vaea peak itself, while a number of features were also located around the secondary peak on the Apia end of the ridge, where the communications mast and associated buildings now stand. However earthworks for the mast and buildings have removed the top of the peak, and with it part of the prehistoric structures. This area would probably have been second in importance on the mountain only to Mt. Vaea peak itself, and it is regrettable that it could not have been recorded. On the south end of the hill, where it overlooks the saddle between the Vailima road and Moamoa, a series of terraces and a starmound were found.

The two main side spurs visited during the survey were extensively terraced, as was a minor spur leading off to the north from the top of Mt. Vaea. Other terraces were noted on the east side of the main ridge, but have not been marked on the map.

The three days spent on the mountain located a large number of prehistoric features, and it is certain that a great many more remain to be found. The status of Mt. Vaea as a single fortification remains to be determined. Given that the north trending ridge is terraced over its length as Golson reported, then a mountain some 4 kilometres in length has been modified, and this is larger by far than any other the author has mapped in either Western or American Samoa. However it seems to follow the pattern set in these sites; of all access spurs or ridges terraced, and all the high points modified for occupation, with the highest being the most heavily defended. A complete map of the mountain

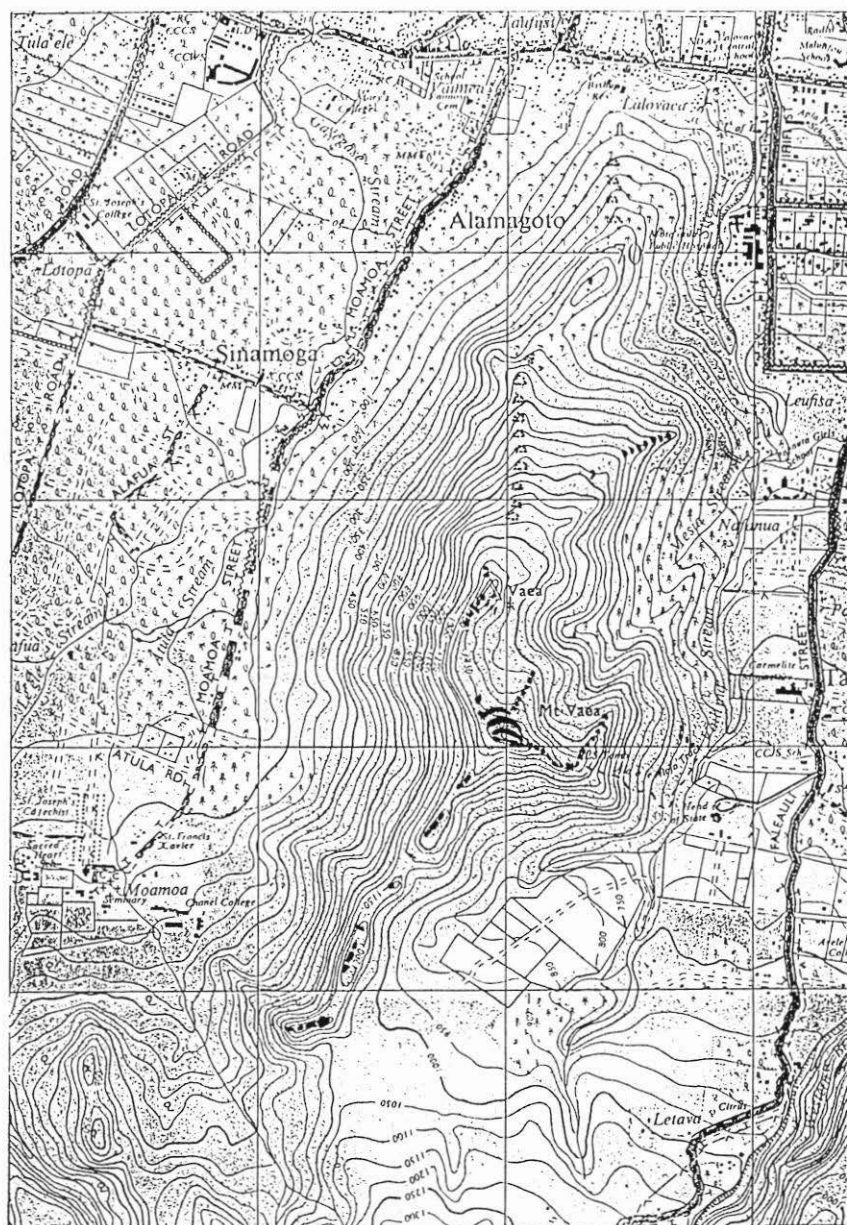


Figure 4. Mt. Vaea. The solid features are terraces, mounds, ditches etc. located during the present survey. The dashed features down the north spur are those reported by Golson.

is needed before these assumptions can be checked.

SUMMARY

Of the five sites examined, that at Vailele was a flatland settlement, and although it was not expected to conform to the pattern suggested for the others, the single defensive wall and ditch could well be a part of some larger complex. One other site, Tula-i-pule, is still a puzzle, which may be sorted out with more work.

The three fortifications of Luatuanu'u, Mafafa, and Mt. Vaea fit the suggested pattern of such structures, although Luatuanu'u was a surprise in that an error in transcribing survey data was the reason for the site's strange appearance.

These types of fortifications are common throughout both Western and American Samoa, and probably number in the hundreds. That some of these are large and complex has been shown both by this work and by that carried out by the author in American Samoa.

It would be a considerable task to adequately map even a small sample of these; one such site in the Lau Group took two workers 500 hours; but most could be surveyed in about half this. If it ever becomes fashionable to gather reliable and comprehensive field data **before** constructing theories about the past then sooner or later this will have to be done.

One snag with this is the possible increase in the frequency of hurricanes in the Pacific, predicted as a side effect of global warming, which transform the bush into an almost impenetrable tangle of fallen trees and creepers. We may have to wait until an archaeologist rises through the ranks as skilled in the use of bulldozer and chainsaw as with the more mundane trowel.

But hang on a minute, isn't this where we came in?

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