

‘How Karius Found a River to the North’: the first 1927 attempt to cross New Guinea from the Fly to the Sepik

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Abstract

Charles Karius and Ivan Champion were invited by Sir Hubert Murray to find a way across the central range from the headwaters of the Fly River to the Sepik River. Their first attempt in 1927 was unsuccessful but they succeeded on their second expedition later that year.

During the first attempt they split up. Champion explored north-westwards from their base camp on the Palmer River, making contact with the people of Bolovip and discovering that they knew of a track across to the Sepik headwaters. Karius explored to the north-east and in his official account he reported that he had followed the Strickland River almost to its source and had to turn back when he was less than ten kilometres from the Sepik headwaters. His published map was drawn accordingly.

In this paper I demonstrate that Karius was wrong. I have traced his journey day by day,¹ following the account he gave in his official report, and it is clear that he remained entirely within the valley of the Murray River and did not encounter the Strickland above its junction with the Murray.

Introduction

In his book *Across New Guinea from the Fly to the Sepik* (1932, 1966), Ivan Champion noted the exploration of the Fly River by the Italian naturalist Luigi D’Albertis and by British and Australian explorers, and of the Sepik by the Germans. He went on to state (1966: 7):

The results of the various expeditions suggested that the sources of the Fly and the Sepik were not far from each other . . . Between latitude 5° S and 5° 30' S and longitude 141° E and 142° E lay a belt of mountains and unknown country, the Star mountains extending along the 5th parallel from the Dutch border, and then the Victor Emmanuel range farther east. [Leo] Austen had explored the foothills of these ranges in his three expeditions, and he found them to be composed of coral limestone in which water was very scarce and travelling almost impossible.

In 1926 His Excellency, Sir Hubert Murray, Lieutenant-Governor of Papua, invited C.H. Karius, Assistant Resident Magistrate, to lead an expedition which was to trace the Fly to its source, cross to the head of the Sepik and follow that river to its outlet, thus crossing the island of New Guinea in its widest part . . .

Ivan Champion was selected to accompany Karius through to the Sepik River and his book is an account of the first attempt and the later successful trek in 1927.

Given Leo Austen’s experience of three expeditions into the headwaters of the Fly and Alice (Ok Tedi) Rivers during 1922-24 (Austen 1923a, b; 1925; 1926), one might wonder why he wasn’t chosen for the

¹ I have traced my reconstructions on images scanned from the relevant 1979 1:100,000 Series T601 maps and the 1981 1:250,000 Series 1501 SB 54-7 map.

crossing. Sinclair explains (1988: 44-47) that Austen proposed a crossing of New Guinea exactly as Murray later planned but made the mistake of broaching the subject to the Minister for Home and Territories when he was on leave in Sydney, without first consulting Murray. Murray was offended by this breach of protocol and rejected Austen as a participant in the 1926 attempt.

Detailed accounts of the first attempt by Karius and Champion to cross to the Sepik was provided by Karius in Appendix A (pp.91-101) and by Champion in Appendix B (pp.102-117), of the *Annual Report of Papua for 1926-27*. Karius also published a report of both attempts in 1929 in the *Geographical Journal* (74: 305-322) and Champion's book on the explorations appeared in 1932.

The North-West Patrol

The 'North-West Patrol' left Port Moresby in December 1926 and four months later Karius and Champion were camped on the southern edge of the Blucher Range. Karius worked his way up the Palmer between Mt Donaldson and Mt Blucher to establish Camp 13 at the junction of Luap and Tungom (north-west and east) branches of the Palmer.

In Chapter 12 of Champion's book, there is a brief summary of Karius's first sortie to find a path to the Sepik headwaters from Camp 11 on the southern slopes of the Blucher Range during the second half of April 1927. Karius found a significant and inhabited river catchment to the north of Blucher then returned to Camp 13, to which Champion had brought forward all the supplies. Karius prepared for a second sortie commencing 1st May, leaving behind a disappointed Champion who, nevertheless, laid the groundwork for the successful crossing to the Sepik River on their second expedition later that year by using the time waiting for Karius's return to explore the source of the Luap.

Champion does not recount in his book his thoughts about Karius's attempts but revealed them decades later to Sinclair (1988: 55):

Ivan Champion had no faith in Karius's plan. He did not believe that the big river his leader had found would lead him to the Sepik. He remembers:

'Karius said to me, "I think I've reached a tributary of the Sepik," and I said, no you haven't. You couldn't have! "Well," he said, "it's going in the right direction." Yes, I said, but in the time you've been away, you couldn't get there. "I'm going," he said ...

'Karius didn't have much of a sense of direction, but I had. He knew a bit about surveying, but only a bit, and he was firmly convinced that he had been on one of the Sepik tributaries...'

This suggests that Karius had indifferent talent as a geographer, compared to Champion. Karius never tried to find out local names for geographical features, in contrast to Champion who did. It is relatively easy to determine exactly where Champion went — given present knowledge of local names of settlements, mountains and rivers — compared with the difficulty of tracing exactly where Karius went.²

Karius made up names for mountains and rivers and used those names in his report but on the map reproduced in his *Geographical Journal* paper of 1929 (74: 305-322) and in Champion's book, the local

² In addition to Karius's ambiguous geography, there seem to be typographical errors in the *Annual Report* that add to the confusion. I will remark on these in footnotes as the account is reviewed.

names as reported by Champion are used.³ Fortunately, in Champion's report of what he did after Karius left for the second foray north (Appendix B of the *Annual Report of Papua for 1926-27* pp.102-117), there is a 'translation' (p.103):

They were accustomed to us now and soon I was sitting with them getting a vocabulary, and I found it totally different from that of the people living on the flat plain country. They called the Palmer (Luap), and as I thought, the stream coming from the north-west (Mr. Karius's Ivan Creek) is the Luap, and, therefore, the main river. The white coloured stream which takes its rise in the huge landslide is called Tungom (Mr. Karius's White River). The western extremity of Mount Blucher is called Nep, and the great isolated mountain rock 2 miles north of here is Mabiom (Mr. Karius's Mount O'Malley). The smaller one, further to the west, is called Karik (Mr. Karius's Mount Austen). The natives pointed to the west and signified that the river which flowed past that long mountain seen from the Tungom was called Narin and joined the Luap (Palmer) some miles down. I tried to get the name of the large mountain and got the name Feneng, but I was not sure whether they meant it or another river.

Karius's Map

An important document in reviewing Karius's account is the map, referred to above, that was included in his report published in the *Geographical Journal* in 1929 and which was reproduced in Champion's book. This map (**Figure 1**) was compiled 'from the compass sketch map drawn by Mr Karius and previously existing cartographical data'. The data for the Sepik River incorporates the cartographic information provided by Behrmann's 1924 map showing Richard Thurnwald's journey up the Sepik to the vicinity of present-day Telefomin in 1914.⁴ The data for the Fly River side is from Sir William MacGregor 1891, S.D. Burrows 1917 and Leo Austen 1923a, 1923b, 1926. MacGregor's last camp on the Palmer was about 10.5 kilometres (as the crow flies) above its junction with Black River (ie. c. 141° 46' 40" E x 5° 41' 30"S). Burrows reached only as far as the Elevala River and while Austen got much further north, he did not provide long-lat measurements.⁵

It is apparent from a comparison of the Karius map with modern maps that there is considerable distortion that could explain some of the conundrums posed by Karius's account of his forays north of Blucher. I therefore have constructed a table comparing long-lat locations from both sources, of known geographical features, and of Telefomin and Bolivip.

³ In this account, I will on first mention note alternative names and spellings of particular geographical features but thereafter use the names to be found on modern maps or as corrected by field workers. Thus the river marked as the 'Wungop or Strickland River' on Karius's 1927 map I will name the Sel (incorrectly spelt 'Sey' on modern maps). Karius has failed to indicate that the river he named the Murray extends north of the Dap Range as an east-flowing river named the I River (after Barth 1975: 23), joined from the north by the east- then southflowing Sel. The river named the 'Murray' by Karius is known as the Wangop (Wongop) by local peoples. The 'Crystal River' as marked by Karius north of the Victor Emmanuel Range is roughly where the Ok Om (Strickland) runs east and then turns south through the Strickland Gorge, separating today's West Sepik and Southern Highlands provinces.

⁴ Champion (1966:198) commends the thoroughness of the Germans: 'When we reached that part of the Sepik explored by Schultze and Thurnwald, we were very much indebted to them for the excellent maps which they made.'

⁵ At the end of Austen's report of his exploration up the Alice (Tedi River) to the Star Mountains in the *Territory of Papua Annual Report for 1922-23* (pp. 27-37), he suggests that 'exploration work in these mountain parts could be more efficiently carried out if the officers were given a little instruction in the use of a few instruments, by which positions by the sun, &c., could be worked out and heights ascertained...'. I have found no evidence that Austen was given the benefit of this suggestion for any of his exploratory work in the Fly River region.

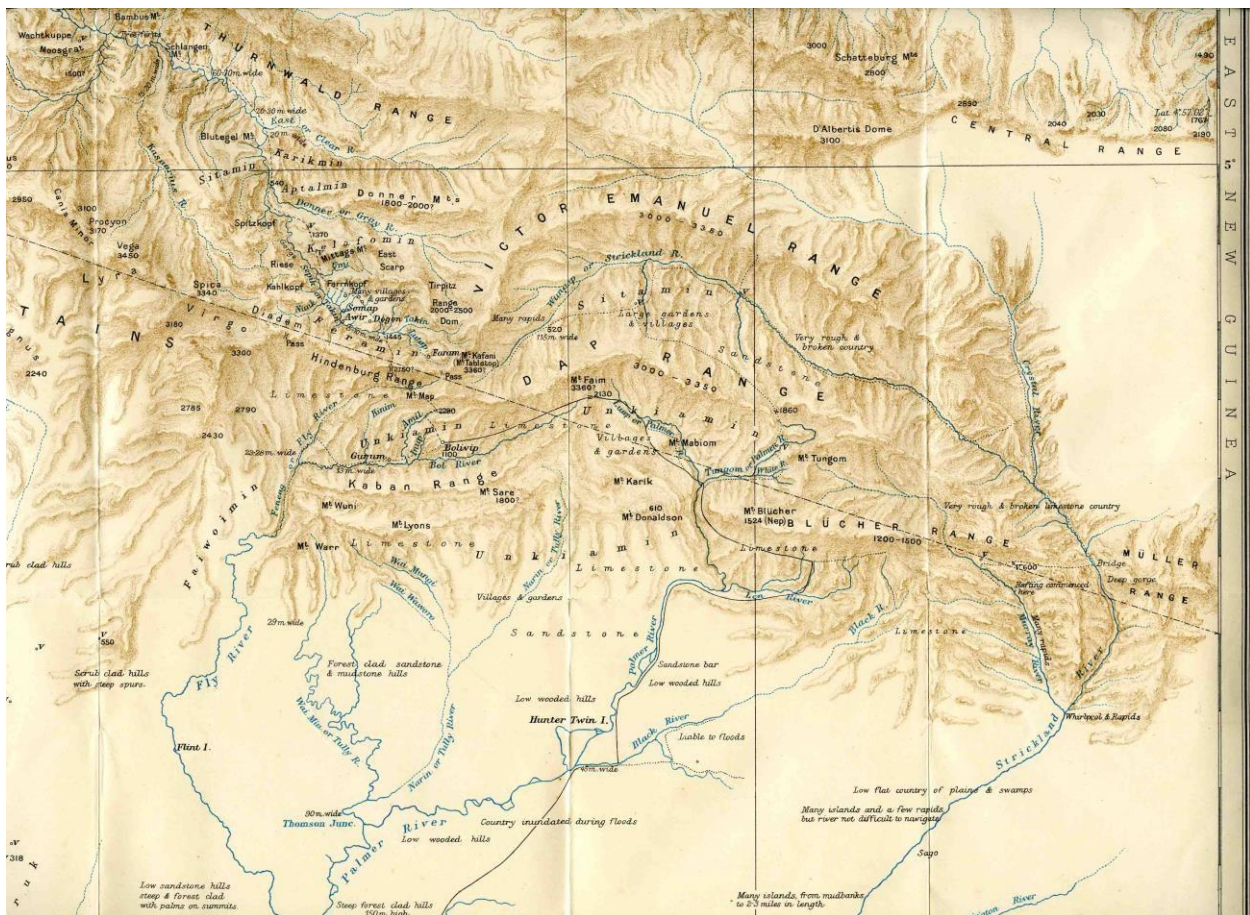


Figure 1. Part of Karius's 1927 map as included in Champion 1932 (1966).

LONGITUDE

	Sepik/Donner (Elip) junction	Palmer (Luap)/Len junction	Distance
Modern map	141° 29' 30" E	141° 48' 00" E	18' 30" (c. 34 km)
Karius 1927 map	141° 28' 30" E	141° 57' 30" E	29' 30" (c. 55 km)
Discrepancy	01'	10' 30"	09' 30" (c. + 21 km)

This represents an inflation of west-east distances by 162%.

LATITUDE

	Sepik/Donner (Elip) junction	Palmer (Luap)/Len junction	Distance
Modern map	4° 58' S	5° 39' S	41' (c. 76 km)
Karius 1927 map	5° 01' S	5° 27' S	26' (c. 48 km)
Discrepancy	3'	12'	15' (c. -28 km)

This represents a collapse of north-south distances by 63%.

	TELEFOMIN ⁶	BOLIVIP (Old)
Modern map	5° 07' 30" S x 141° 38' E	5° 22' S x 141° 37' E
Karius 1927 map	5° 10' S x 141° 36' E	5° 17' 30" S x 141° 39' 30" E
Discrepancy on 1927 map	2' 30" (4.6 km) too far S 2' (3.7 km) too far W	4' 30" (8.3 km) too far N 2' 30" (4.6 km) too far E

This also indicates an inflation of W-E distances and a collapse of N-S distances.

⁶ While 'Telefomin' is not marked as such on the Behrmann (Thurnwald) or Karius 1927 map, it would be located about where the 'g' of 'Dogon' is marked on the Karius map.

What is striking about the route marked by Karius on his map is the extraordinary distance it suggests he covered in the thirteen days between when he left Camp 13 on 1 May 1927 and arrived at the 'Devil's Race' (which he believed was on the Strickland River but I will assert was on the Murray) on 13 May. This distance, ignoring the topography, is roughly 175 kilometres according to that map (ie. over 13 km/day). By comparison, Champion's exploration up the Luap to Bolivip and across to the Feneng or Fly headwaters and back, taking fourteen days from 10 to 23 May 1927, covered roughly 125 km, again ignoring the topography (ie. about 9 km/day). Karius often admits that the path was so rough that he made little progress some days and his party spent time building bridges and processing sago. For example, for 6 May (*Annual Report of Papua for 1926-27* p.97) he states:

Moved off at 6.15 am, continuing on downstream. Terribly rough travelling, the country becoming rougher and more broken as we proceeded. Camp made not more than four miles below yesterday's camp, although we travelled fully fifteen miles getting here.

The following day also was rough and he camped soon after midday. He spent most of the day after that having a bridge built to cross a river. It beggars belief that Karius could have travelled the distances he marked on his map in thirteen days given his description of the terrain through which he and his party struggled.

A major difficulty arising from the collapsing of north-south distances is Karius's omission of a west-east valley (that of the I River) between the Dap and Victor Emmanuel ranges and his indication that the 'Wungop' is the upper course of the Strickland rather than of the Murray.

Karius's Journal: First Sortie, 18 to 27 April 1927

An important geographical point of reference for this ten day patrol is the massive landslip at the head of a tributary of the Tungom, the 'White River' as Karius named it on account of the colour of the water. This landslip, and the course of the Tungom tributary that runs from it, is clearly visible on Google Earth satellite images at about 141° 53' E x 5° 32' S (**Figure 2**).

17 April: Karius commenced walking with six police and ten carriers from Camp 11 on the southern slopes of the Blucher Range (c. 141° 50' 30" E x 5° 37' 40" S), along a previously cut trail, arriving at 'Camp 13' (c. 141° 48' E x 5° 32' 30" S) that he had established earlier at the junction of the Luap and Tungom rivers (map distance of c.13 km).

18 April: 'Continued on up the Palmer' (Luap) to the branch of the Tungom (coming from NNE) and a milky white river from the east he called the 'White River'. Karius followed the White for several hours and camped at 2200 feet (c. 141° 52' 15" E x 5° 32' S; map distance travelled c. 8.5 km). Champion recorded the elevation of this campsite as 2404 feet (1932: 58; 1966: 50).⁷

⁷ Appendix B, p.102: 'Water boiled in hypsometer read 207.8 deg. and temperature 74 deg. F., giving an altitude of 2404 feet above sea level.' A pressure hypsometer employs the principle that the boiling point of a liquid is lowered by diminishing the barometric pressure, and that the barometric pressure varies with the height of the point of observation. However, barometric pressure varies according to the weather systems moving across the land so there is an error factor. It seems Karius used an aneroid barometer to measure altitude (see p.19 - 18 May - and footnote 22)



Figure 2. The landslide at the head of the Tungom, 70° and 8 km from the centre of this image. Mt Blucher near centre; Mt Karik 6 km west of Blucher; Mt Mabiom 30° and 6 km from Karik.

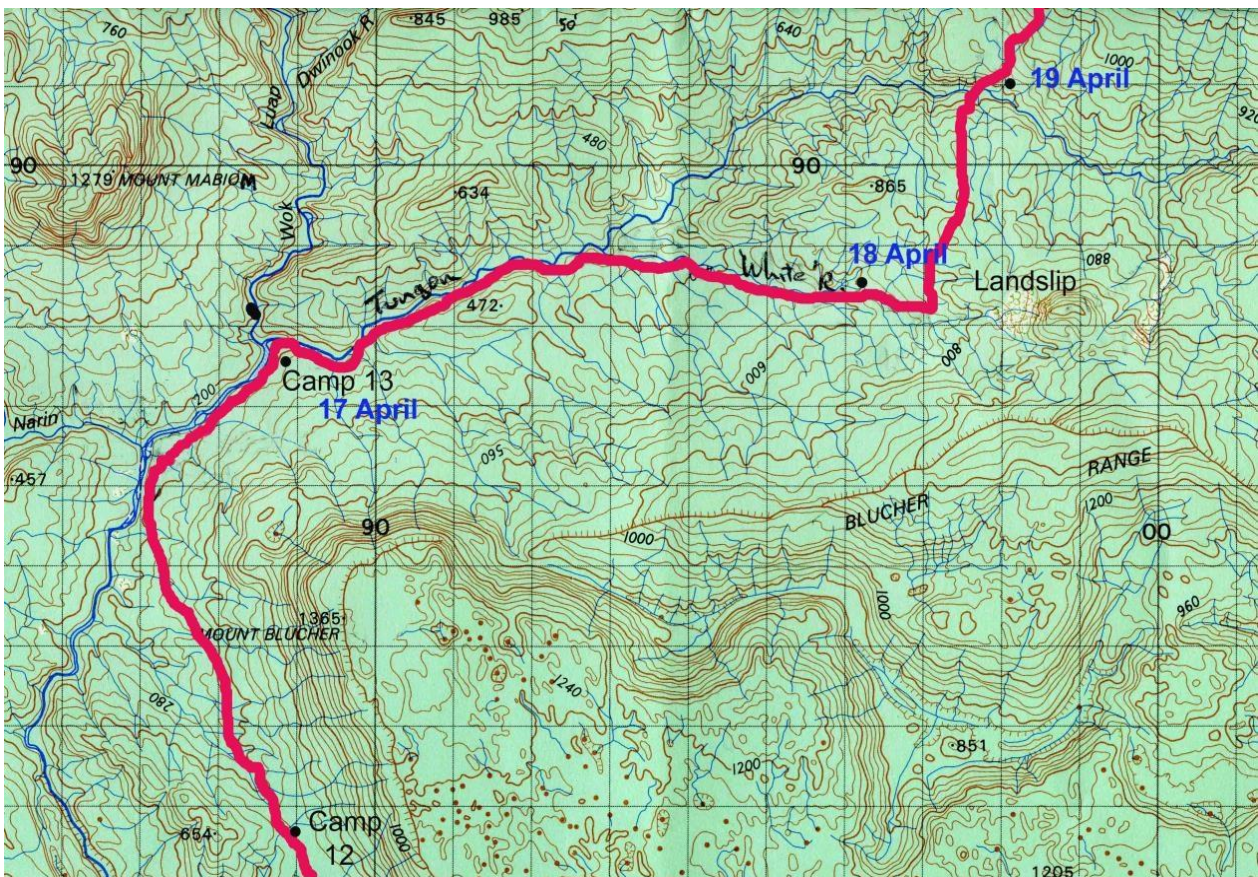


Figure 3. Map (1:100,000) showing Camps 12 and 13 and Karius's path from Camp 13 towards the landslide and north to his camp on the Tungom River, 19 April (1:100,000 map, T601-7286).

19 April: Continued to the landslide at the source of the White River, altitude 2600 feet (790 metres). Turned north to cross the divide between the ‘White’ and the ‘Palmer’ (Tungom); ‘*descended to the river [Tungom], crossed and ascended to a small village*’ whose frightened inhabitants left during the night. Camped there (c. 141° 53' E x 5° 30' 30" S; map distance travelled c. 5 km; see **Figure 3**).

20 April: Climbed northerly for two hours to a clearing on a spur running south from a WNW to ESE range (presumably the Dap Range). From here he cannot see the landslide to his SW as it is hidden by the 1200 metre limestone-capped mountain above it. He records ‘*Mount Blucher bearing 220 degrees from here and Mount O'Malley 230.*’ There is something seriously wrong here for these bearings would place him at least as far away as 142° E x 5° 21' S (between the Murray and Strickland valleys).⁸



Figure 4. Karius's path north across the Dap Range to a (Baktamanmin) village (1:100,000 map, T601-7287).

From this observation point too, Karius states: ‘*To the east of us was the valley of the Palmer, **which we subsequently crossed**, prior to the final climb from our spurt [sic] to the range just mentioned*’ (my emphasis). On his 1927 map he shows a tributary of the Palmer (Tungom) doing a possum tail north of Mt Tungom; he must have seen a small tributary valley running east — but it does not run south and then west into the Palmer/Tungom but runs directly into the Wangop (Murray). There is only one stream

⁸ Champion's readings from ‘*the head of the Tungom River*’ (Outline Sketch in his report in Appendix B) are far more accurate; the bearings of Blucher (243.5°), Karik (251°) and Mabiom (274°) locate him about a kilometre or so north of his stated location a half hour downstream from the base of the landslide.

running eastwards that could be crossed before reaching the east end of the Dap Range, north of the Tungom. This stream is not named on the modern maps but rises in a saddle between the two heights (1692 and 1534 metres) at the eastern end of the Dap Range and enters the Wangop River at c.141° 55' 50" E x 5° 27' 45" S (**Figure 4**). If these suppositions are correct, the clearing from which he would have taken his observations would be at about 141° 53' 30" E x 5° 29' 20" S. From there, Mt Blucher bears 230° and Mt O'Malley (Mabiom) bears 255°, radically different from the readings he reported. Just north of this point *'the country had changed'* from limestone to a soft brown sandstone.

A geological map of the area (**Figure 5**), does not indicate limestone (orange colour) where the landslip is located but examination of the most recent 1:100,000 map shows a small relic outcrop mountain just 1.5 km north of the northern face of Blucher and it is this outcrop at 1200 metres that is the source of the limestone of the huge landslip. Mabiom, less than 100 metres higher than this Blucher outlier, being somewhat larger in extent, is marked as limestone (orange). Further, the boundaries of the sandstone (green) strata along the northern side of the Blucher Range are indicated with question marks and therefore cannot confirm or refute the boundary between limestone and sandstone as reported by Karius.

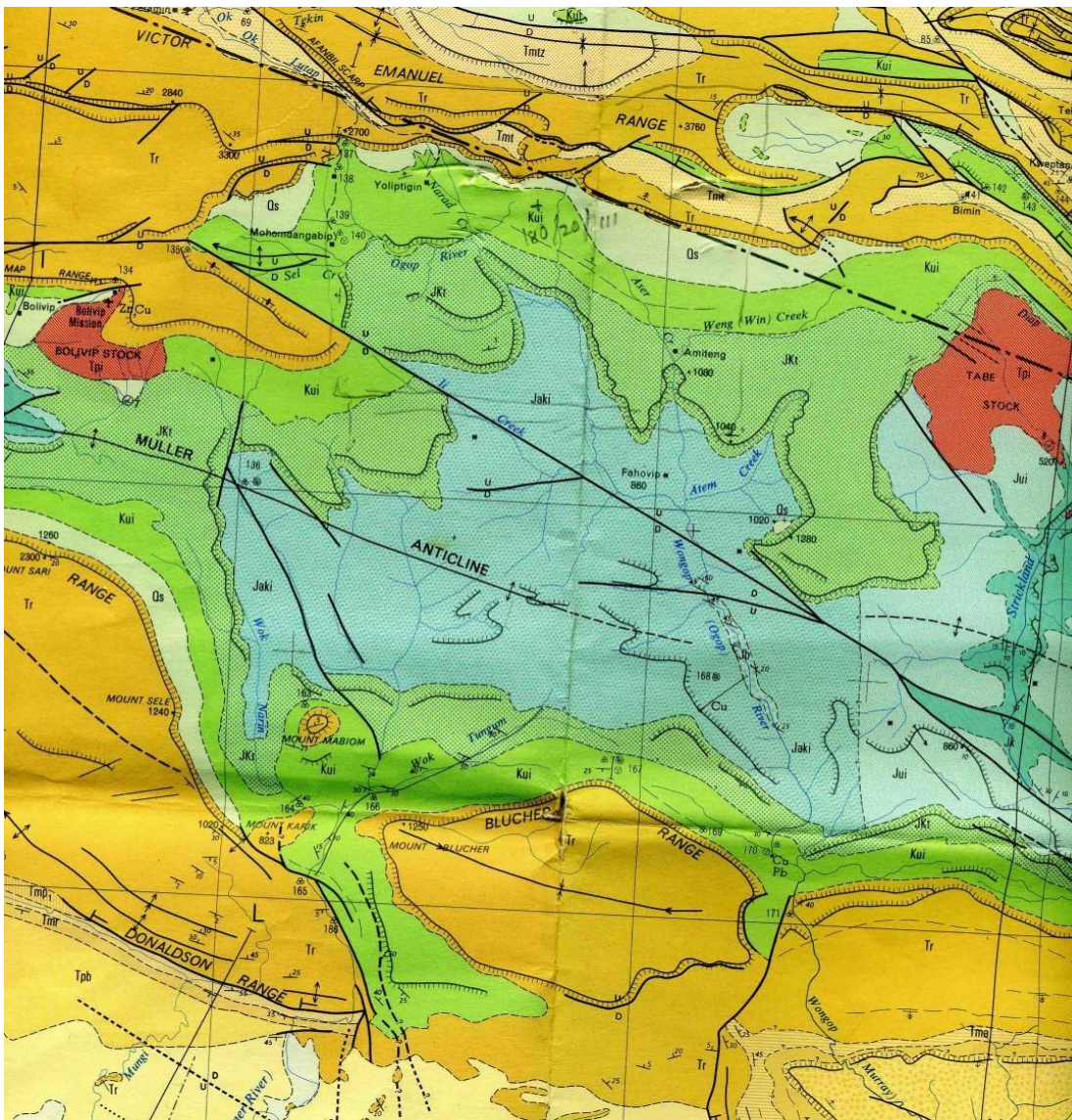


Figure 5. Geological map, Murray Valley. Green = sandstone; orange = limestone. Map courtesy Hugh Davies, University of PNG.

From this observation point below the south-east end of the Dap Range, he crossed ‘northerly’ into a ‘new watershed’ reaching 6100 feet or 1860 metres; but the highest point at this end of the Dap Range is only 1692 metres — another discrepancy. He descended north along a spur to make camp three hours later at 3800 feet (c.1160 metres). It is difficult to determine exactly where this is but around 141° 52' E x 5° 28' S, depending on which ridge or spur he followed north down towards the I River (named Wangop on the 1:100,000 map). Map distance travelled c.7 km.

21 April: the patrol continued ‘northerly’ for over four hours, crossing a stream at 3000 feet that flows north-west and falls over a 1000 foot precipice. It seems that this waterfall would have been to their left rather than to their right if they were maintaining a northerly direction. Then they came upon a large village of fifteen houses at 3300 feet (c.1000 m). I believe this to have been a Baktamanmin village.⁹ Only one man, a cripple, remained at the village, the rest having fled. Karius gave the man a sheath knife but had to show him how to use it.

The waterfall is difficult to correlate with the geography as there appears to be no location anywhere in the area featuring ‘an unbroken fall’ of 300 metres. However, there are two valleys where the contours suggest a steep profile along the 1000 metre contour line: one about 1.5 km SW of ‘Baktamin’ on the 1:100,000 map and the other 3 km west of ‘Baktamin’. It is more likely to be the latter as the eastern slope of the former valley is not as precipitous as the east slope of the latter and it is probable that the waterfall was observed on their left as they travelled northwards (see **Figure 4**).

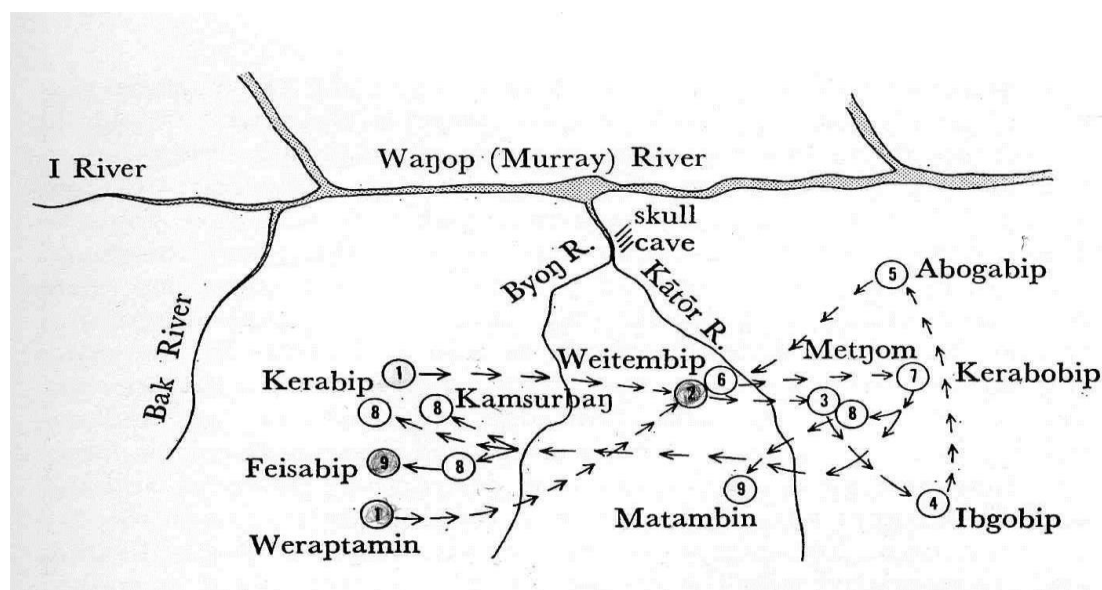


Figure 6. Map of Baktamanmin territory (Barth 1975: 23)

Fredrik Barth indicates in a sketch map (**Figure 6**, after Barth 1975:23) that Baktamanmin settlements have moved around over the past few generations, among several locations east of the Bak valley and south of the Wangop (I-bang) River. His map does not name the two rivers coming in from the north but the northern tributary at the left is most likely the Sel and that at the right must therefore be the inflow of the confluence of the Awel (more correctly the Weim)¹⁰ flowing from the north and the Atem flowing

⁹ Baktamanmin is the correct name for the people (*min*) living in the valley (*taman*) of the Bak river. ‘Baktamin’ (on the maps) and ‘Baktaman’ (Barth), used to refer to the village or the people, are contractions.

¹⁰ Sveinn Eggertsson, personal communication, 11 July 2013.

from the east. The location marked Kerabip east of the Bak River on Barth's map is possibly where Karius found the large village of fifteen houses on the spur two kilometres west of the spur on which 'Baktamin' is marked on the 1:100,000 map.

Karius continued past the large settlement ENE for three hours, descending to a 'large stream' (125 yards wide and 'very deep') at 1700 feet (c. 520m). This has to be the I River.¹¹ The 600 metre contour reaches a point on the I River a couple of kilometres below its junction with the Sel. If Karius's altimeter was reasonably correct (inconsistencies between his altitude readings and modern maps suggest otherwise), he could not have been further upstream on the Wangop than the junction of the I and the Sel. On the other hand, he noted the (I) river is flowing NE, which it does for a couple of kilometres before being joined by the Sel. This suggests he was upstream from the junction of the I and the Sel, so his altitude data conflicts with his record of the direction of the river.¹²

After struggling for a few hours along the steep southern side of the I valley, Karius camped somewhere on the I River, probably a kilometre or so below the inflow of the Sel. He may have missed seeing the Sel inflow because he came onto the I River downstream of the Sel inflow, or during one of his scrambles through the forest to get around a steep cliff on the southern side of the I River. His map does not clarify this question. Map distance travelled c.9 km. This camp may have been around 141° 53' E x 5° 25' S

21 April: Karius began his return trip, arriving back at the 'large village' after seven hours of walking and camped there. This was about 5 km on the map, consistent with trackless rough country as he described it. At the village he met up with a dozen armed men and eventually he was brought taro, for which he gave them an 18-inch knife (machete), and a pig, for which he paid a small tomahawk. Barth (1975: 269) notes that the Baktamanmin recall giving a pig to strangers (Karius or someone else?) but they claimed they got nothing in return.

22 to 27 April: returned to Camp 13, but more directly via the Tungom rather than via the 'White River', to find that Champion had brought all the supplies forward. Map distance around 22 km over five days.

Thus, from Camp 13 to his furthest point on the 'Wungop' (I River) and back was around 57 kilometres, which took Karius ten days. He rested up and discussed with Champion his plans to proceed again into the area from which he had just returned, to find a path northwards to the Sepik headwaters. He selected 6 police and 21 carriers and assembled full rations for 22 days, '*. . . police to carry loads as well as the carriers*'. He asked a disappointed Champion to take his time moving all excess supplies back to Camp 9 (located on the Palmer about where MacGregor had made his last camp in 1890). He was to wait there until 21 May and if Karius did not return by then, he was instructed to raft down the Fly and proceed to Daru.

¹¹ There is some difference of opinion about where the named parts of rivers begin and end. Eggertsson reports that the Kwermin view is that the I River (I-bang) does not end until its junction with the Awel (Weim)/Atem confluence, whereupon it is called the Wongop, and the Sel (Sel-bang) is a tributary of the I-bang rather than the other way around (pers. comm. 11 August 2011).

¹² After joining with the Sel, the I River turns south-east for a couple of kilometres, then east for three kilometres to collect the waters of the south-flowing Awel (Weim) and the west-flowing Atem, then runs SSE through a relatively deep and narrow valley (the Murray on modern maps and Wangop/Wongop to the local people). The Kwermin live on the east side of this valley (see Eggertsson 2003, Maps 2 and 3 on pp.16, 17).

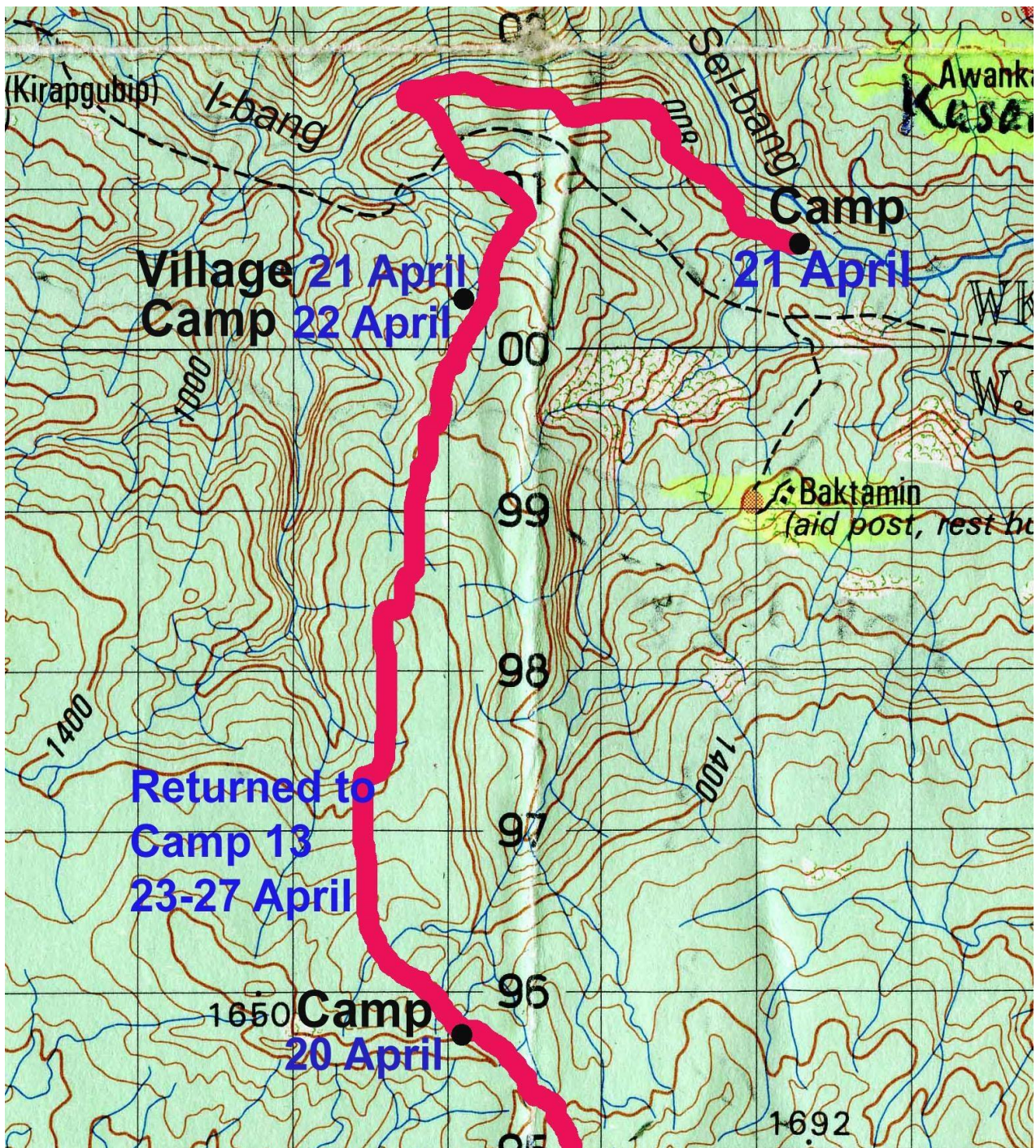


Figure 7. Karius's camps 21/22 April 1927

Discussion: The only major questions concerning this first sortie by Karius, apart from doubts about his altitude and compass readings, are: which northern spur of the Dap Range did he walk down to reach the large village of fifteen houses which I suggest was a Baktamanmin village, and where was his last camp on the I River, 21 April? In answer to the first question, if we take his compass directions and altitude readings more-or-less at face value, and accept that he observed a stream at 3000 feet (c.900 metres) running north-west to a vertical or at least very steep waterfall, then there are only two candidates: the spur on which 'Baktamin' is marked on the current 1:100,000 map or the next spur 2 kilometres to the west. The topography, Barth's evidence of village movements over the past few generations and Karius's journal of his second sortie all appear to require a location further to the west than that on which 'Baktamin' is presently located.

Karius's Journal: Second Sortie, 1 to 22 May 1927

1 May: Karius departed Camp 13 at the junction of the Luap and Tungom, followed the Tungom up to its junction with the 'White' River and made camp there. He proposed continuing up the Tungom to reach the small settlement on its north side directly rather than via the big landslip at the head of the 'White' River.

2 to 4 May: Karius does not report daily progress. He arrived at the 'large village' of fifteen houses to find it deserted, possibly late 3rd or early 4th. That day he also observed what he thought to be D'Albertis Dome bearing 347° from the large village and '*approximately seven miles [11 km] away*'. He notes the river below the village '*coming in a semi-circle from the south-west, passing below the village in a north-easterly direction and continuing in that direction for several miles*'.

During the 4th, Karius and two police followed a good track running WNW from the village; this is not consistent with the direction of the path shown on his 1927 map, which he shows running to the west, then to the south-west.

'Passed D'Albertis Dome and came down on to the river shortly after at an altitude of 2400 feet [730 metres]. Many streams . . . from the north and the south. Followed up stream for another two or three miles. At this point the river small and branches, one branch coming from the mountains to the north north-west, and to the west of D'Albertis Dome, the other branch coming from the west from between two high peaks which I presume are the Macgregor Peaks. Followed this stream until I commenced to rise very rapidly, turning back to camp on attaining a river altitude of 2700 feet [825 metres].'

It is necessary to pause here and evaluate these observations by Karius.

His reference to D'Albertis Dome¹³ is a significant issue. The 1974 Gazetteer locates the Dome at 142° 07' E x 4° 58' 30" S. This is a location about 8 km SW of Mt Walawsi, a peak in the Fiamolu Range at 2888 metres (1:250,000 map). On the 1:100,000 map, Walawsi is 41 miles (66 km) from 'Baktamin' at 28° (E of N). On Karius's 1927 map, the Dome is 3100 metres, 18 miles (29 km) from the 'large village' and at 43°, even further east of north. There is therefore a gross inconsistency between his map and his report. Further, if we take the Gazetteer location to be correct, the Fiamolu Range would not have been observable from the 'large village'; the 3200 metre contour line ESE of Mt Wamtakin and about 25 kilometres from the 'large village' would obscure it. It is therefore most likely that Karius mistook Kweirok for the Dome.¹⁴ Incidentally, a location for the 'large village' on the spur next west of 'Baktamin' would put Kweirok at 355° and 17 km away.

The river Karius describes passing in a semi-circle from the south-west, round below the 'large village' in a north-easterly direction must be partly the I River but the I River does not come from the SW. However, a tributary immediately west of the 'large village' does, and perhaps this is what Karius observed. This is most likely the Bak Valley which runs into the I Valley.

¹³ D'Albertis Dome was tentatively so named by Leo Austen during his 1924 exploration of the Palmer and Tully headwaters — Austen 1926: 439 and map p. 436. The Gazetteer locations are based on the location of the Dome as indicated on Austen's map and are therefore uncertain.

¹⁴ Alternatively, it is possible that what Austen named 'D'Albertis Dome' was in fact Mt Kweirok (3420 metres) or Mt Wamtakin several kilometres north of Kweirok and, at 3583 metres, the highest mountain in that general area and bearing 358° from 'Baktamin'.

There is no possibility that Karius was in the valley of the Sey (Sel) north of the I River as he does not record crossing a major stream such as the I River and climbing to another watershed.

It is difficult to identify where Karius and the two policemen came down onto the I River during their walk along the track WNW from the 'large village'. There are two locations where the I River branches, with one stream from between two high peaks in the west (which Karius thinks could be the Macgregor Peaks¹⁵), joined by a stream from the mountains to the NNW. One location is just under two km due north of where 'Saltamin' is marked on the 1:100,000 map at 880 metres and the other location is further upstream at 1000 metres NW and 1.5 km from 'Yasubip' on the map (**Figure 8**).

This suggests his altimeter readings were seriously wrong as well as his estimates of distance travelled. But all data considered, it is likely that he came down onto the river somewhere north of 'Saltamin', which satisfies the observation that they 'passed D'Albertis Dome' (Kweirok). Following the river upstream for two or three miles would then bring them as far as the upstream junction at 1000 metres identified above. They then would have turned back a short distance west of there, perhaps reaching 1160 metres (3800 feet), which is considerably higher than the 2700 feet he reported. 'Macgregor Peaks' would therefore be the heights at 2000 metres (6500 feet) and 1840 metres (6000 feet) north and south of the I Valley respectively. The total distance travelled would therefore be about 9 kilometres each way which is stretching credulity; they may not have attained a location as far west as I am allowing.

5 May: Karius departed the large village, leaving behind '*three sheath knives and a small tomahawk . . . as a present for the village people and also in payment for the use of their houses*'. He continued NE down the valley (or along the spur?). '*Very rough travelling*'. Four hours or so later he was caught up by men from the village who had found the presents. Karius tried to get them to act as guides but they misunderstood and led them in a roundabout way back to one of their gardens, thinking they were looking for food. Karius decided to carry on along his previous track of 21 April down to the river, arriving at his 'old camp' on the I River at 4 pm. This was as far as he had got on his first sortie. If I have correctly located this camp, about four kilometres upstream from the junction of the I-bang with the Weim-Atem, according to the 1:100,000 map the Wangop is now trending first SE, then generally eastwards.

From this point on, his account gets confusing as to distance travelled and directions. However, it is reasonably certain that he was now following the I-bang to the Wangop (Murray) which flows southwards towards the narrow gorge through which the river passes at the east end of Blucher Range. He reached the gorge, which he named the Devil's Race, at 9.30am, 13 May, after eight days of walking from his 'old camp'. One of those days (10 May) was spent following '*an affluent of the Strickland [sic] coming in from the north*'. This means he had only two and a half days of walking between this affluent and the 'Devil's Race' with a total walking time of no more than 24 hrs. But to reach that affluent, he walked for

¹⁵ Also named tentatively by Leo Austen during his 1924 exploration of the Palmer and Tully headwaters — Austen 1926: 439 and map p.436). Austen locates them west of D'Albertis Dome and they were possibly the 3420 metres Mt Kweirok and the 3565 metre peak seven kilometres east of it. Champion also mentions the MacGregor Peaks, locating them '*at the western end of the Victor Emmanuel Range*' (Appendix B of the *Annual Report of Papua for 1926-27*, p.103). However, they are not marked on Karius's 1927 map. The MacGregor Peaks in the 1956 Gazetteer of the South West Pacific and the 1974 PNG Gazetteer are located at around 6° 43' S x 144° 35' E, which is way over by the Erave River, SW of Karamui. Souter (1963: 68) mentions: '*The name MacGregor is perpetuated on the modern map of Papua by MacGregor Peaks, a remote and rather uninspiring landmark north of the Purari River...*'. Perhaps Austen's label was dropped to favour the naming of the peaks near the Erave River.

five days from his 'old camp'. On two of those days, considerable time was spent bridge-building and sago processing; total walking time was around 30 hours. These considerations are pertinent to tracing where Karius walked and to identifying the 'affluent' from the north and another stream he named the Crystal River.

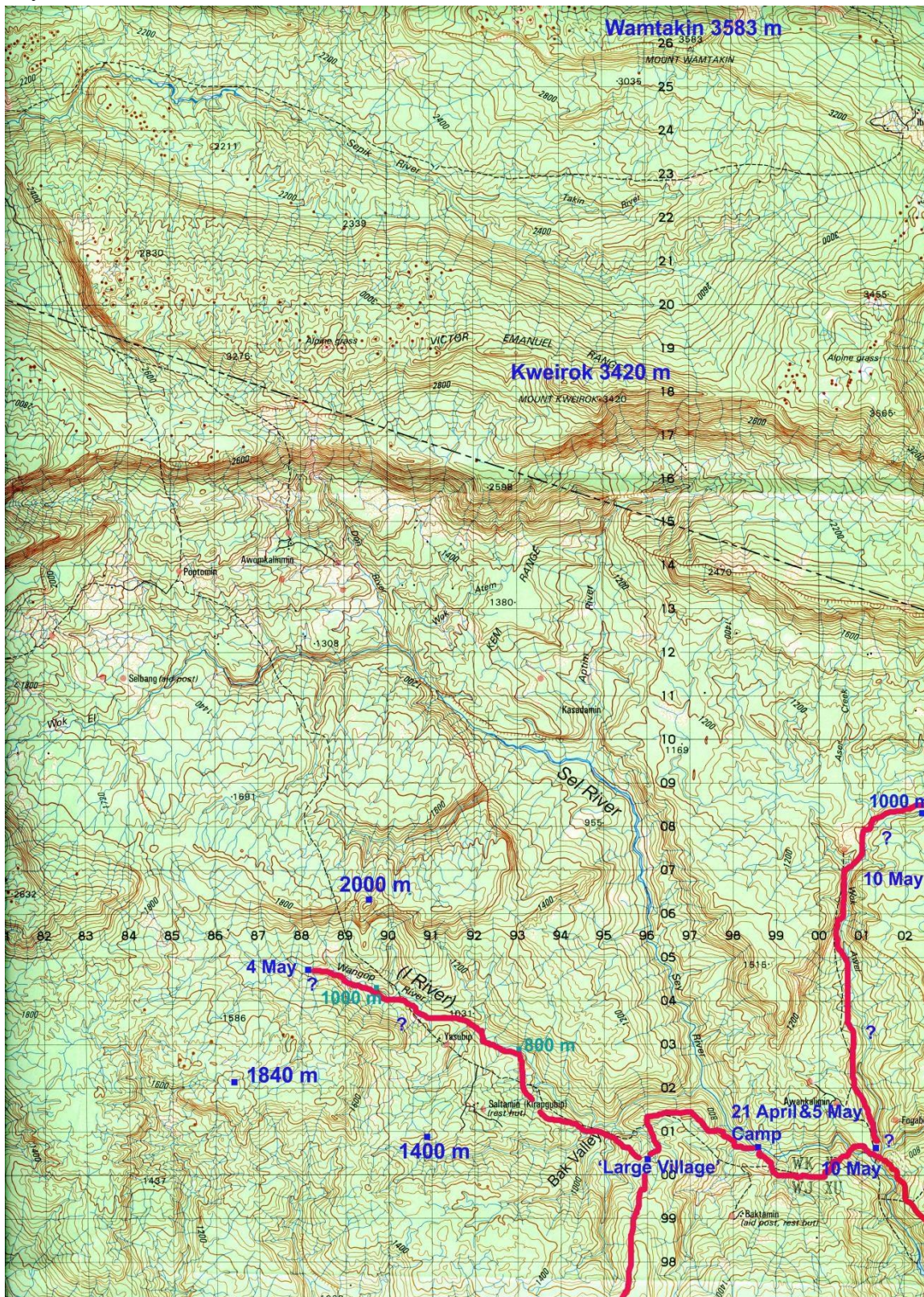


Figure 8. Reconstruction of Karius's route through the Murray Valley. The excursions westwards on 4 May and northwards on 10 May are tentative. Both approximately follow pathways as indicated on the modern map (1:100,000, T601-7287) in black dashes.

6 May: Karius reports briefly: *‘Terribly rough travelling, the country becoming rougher and more broken as we proceeded. Camp made not more than four miles below yesterday’s camp, although we travelled fully fifteen miles getting here.’*

7 May: *‘Extremely rough travelling. Over one ridge after another . . . Many landslides necessitating wide detours. Shortly after midday came on to a native track, coming from the south-west; followed this for a mile [in which direction is not stated but presumably northeast] and came on to a small sago patch at an altitude of 1800 feet [550 metres]. . . Made camp and set all hands to work making sago.’*

8 May: Commenced 6am. After relatively easy walking along the native track ENE for 4½ hours, they arrived at a derelict suspension bridge across to the other (north) bank of the river. They spent the rest of the day rebuilding the bridge.¹⁶

It is difficult to reconcile with the map, and with their presumed location on the south side of the I-bang, the statement that they followed a *‘native track, coming from the south-west’* for a mile on the 7th and for 4½ hours on the 8th. They would have had to be well south of the river to accommodate this much progress in a NE or ENE direction but if they had followed the track in the other direction, ie. SW, they would have been further away from the river and the derelict suspension bridge.

9 May: Bridge completed, crossed to northern side and recommenced walking at 10am. They continue on, up and down over broken country along the north side of the river, experiencing earth tremors and landslips, camping at 4.30 pm. Karius now recognised that the river is trending *‘south of east rather than north of east’*.

10 May: They broke camp at dawn and continued following the river. During this morning walk, Karius says the sky cleared and he could see in the distance *‘. . . a huge wall of rock running north and south, and coming out from the range to the north. The valley of the river [the I-bang/Wangop they had been following] could be seen bearing towards the southern end of this ridge, and then swinging due south between two high mountain peaks. This can be no other than the Strickland.’*

The only *‘huge wall of rock’* marked on the 1:100,000 map in the general area is an escarpment defining the eastern edge of the Awel (Weim) valley. The identity of the *‘two high mountain peaks’* is not clear though there are a few located several kilometres east and west of the Wangop (Murray) at heights between 1467 and 1775 metres. And of course he was mistaken that it was the Strickland he was following.

At 10.30am they arrived at a small (Kwermin?) village and a tributary from the north and they made camp there. Karius decided to explore this tributary, leaving the main party at the camp; he had already been walking for four or five hours. *‘A very strenuous day’s walking and climbing. Six or seven miles [10 or 11 kilometres] from the camp, came to the head of the creek at an altitude of 4000 feet [1220 metres]. Continued climbing, arriving at the top of the range, on a saddle between two mountains, at an altitude of 7350 feet [2240 metres]. Very broken country ahead . . . Directly to the north, a valley running away in a northerly direction.’* He thought it possible that this was the way to the Sepik but as he had insufficient

¹⁶ Eggertsson reports that there is a traditional bridge site across the I River east of its junction with the Weim/Atem Rivers (personal communication, 11 July 2013).

supplies, and had concluded he was on the Strickland, he resigned himself to retreating south downriver to the Fly and Daru.

Karius's record of distance and direction over the five days 6 to 10 May are difficult to reconcile with modern maps. The time they spent walking from where they are likely to have camped on the evening of 5 May to their camp of 10 May, despite time out making sago and building a bridge, seems far too long to have reached only as far as the junction of the I-bang and the Awel (Weim)/Atem. A candidate for his day excursion northwards to a saddle at 7350 feet is the Awel (Weim), or it is possible he followed the Atem to the north-east, which would bring him several kilometres to the east of the head of the Awel and close to the Awel's eastern tributary, the Weng. Either way, starting from a camp at 600 metres (2000 feet), to reach an altitude of 2240 metres (7350 feet) and a view of a valley running away northwards (which could only be a tributary of the Tekin Nr 3 valley inhabited by the Bimin-Kuskusmin) would have required an heroic trek of at least 18 km (11 miles) and the same distance back, all in less than a day, which is highly unlikely!¹⁷ Eggertsson comments (personal communication, 30 July 2013):

As concerns the question of Karius having followed the Atem [Weim] and then north to a ridge where he would have overlooked Bimin and [coming] back, is not possible for a stranger to this country. It usually took us two days - sometimes three - to walk from Bimin to Kwermin.

Even if one locates the May 10 camp seven or eight kilometres down the Wangop (Murray) from the Awel (Weim)-Atem inflow, at about 5° 28' 30" near the junction of a small northeast tributary with the Wangop, following that (unnamed) tributary upstream for about six kilometres would provide a maximum altitude of less than 1700 metres (5570 feet) and the valley on the other side of the saddle trends east into the Strickland rather than north. However, it makes the time getting to the May 10 camp and the subsequent day-trek more believable.

One wonders whether Karius was relying heavily on memory and the sketchiest of notes to reconstruct the journey, particularly in the light of the inconsistencies between his written report and his map.

11 May: They continued down what Karius supposed was the Strickland, *'the river steadily swinging away more to the south. A frightfully rough day's travelling . . . Made camp 4.45 pm'*.

12 May: Departed 6 am, travelling south-west and south. *'Came onto a large stream of water coming from the north-east. Decided to follow this stream down to its junction with the Strickland. The water beautifully clear and cold.'*¹⁸ *Have named this "Crystal Creek". . .*
*Once again entering the limestone belt. Came to the junction of the Strickland and Crystal 4.15 pm. Nothing but limestone here.'*¹⁹ *Made camp. To the south-south-east of us could be seen the end of the wall of rock mentioned earlier in the report, also the two peaks to the west of same.'*

¹⁷ I should note, as a comparison, that in 1972 I walked the 17 miles (27 km) map distance from Telefomin to Bulolengabip (Tifalmin), along a well-made path and not requiring much up-and-down, in 9 hours. I then went from Bulolengabip (Tifalmin) at 4800 feet, west up to the northern rim (8500 feet) of the plateau behind the Hindenburg Wall, SSW across the plateau to the southern rim at 7800 feet, then down the Wall to the village of Tungganabip at 4800 feet, taking 11 hours to walk approximately 11 miles (18 km) map distance.

¹⁸ Karius's map indicates he explored northwards along the Crystal before turning south to join the 'Strickland' (ie. the Murray). He makes no mention of this in his Report so again the map cannot be taken too seriously. ¹⁹ A geological map (**Figure 5**) locates the boundary of the limestone two or three kilometres south of what I identify as the Crystal's junction with the Wangop/Murray.

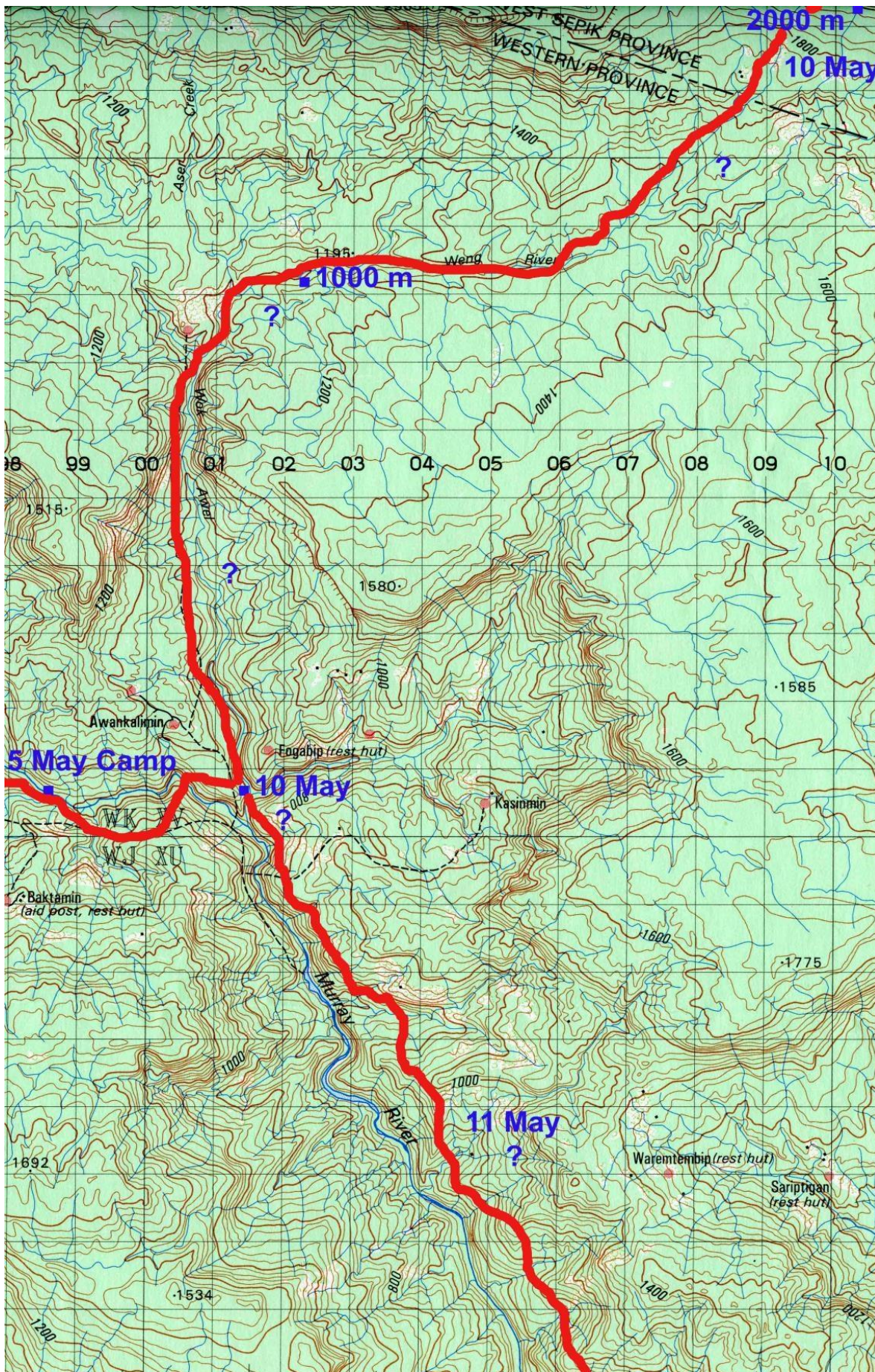


Figure 9. Reconstruction of Karius's route through the Murray Valley. The excursion northwards along the Awel (Weim) on 10 May fits Karius's account but would have been impossible. Map 1:100,000, T601-7287.

The country for the 20+ kilometres along the eastern side of the Wangop, between the Awel/Atem inflow and Aukopmin (141° 59' E x 5° 34' 30"S) would match the description of the terrible country he was walking through from the 6th to the 12th May (leaving aside the question of the northern tributary). So for days they were struggling along what must have been the eastern side of the Wangop and then, at about 5° 33' S, the Wangop swings to the SW in a semicircle and back to its SE direction. It is likely then that they crossed the ridge east of this semi-circle and came down onto the stream he called the 'Crystal' flowing from the NE into the Wangop to a spot about where Aukopmin is marked on today's maps (**Figure 10**).

13 May: They started off at 5.45 am and Karius notes '*fairly easy travelling along the left bank of the river*'; that matches the terrain south of Aukopmin. He notes two big creeks joining the river from the opposite (west) side and a loud roaring sound from somewhere ahead. Just 3 km south of Aukopmin at 9.30 am, they came to where the Wangop/Murray enters a narrow gorge with walls 1500 feet high. Karius named this the 'Devil's Race'. **The location of this name on today's maps 20 km east on the Strickland is an error caused by Karius's conviction he was travelling down the Strickland.** The gorge at that location on the Strickland would, I imagine, be much more dramatic than the one on the Wangop/Murray because of the much greater volume of water in the Strickland.¹⁹ He notes the altitude of the (Wangop) river at the gorge as 650 feet (200 metres) which is consistent with the contours there on the 1:100,000 map.

They were now blocked from following the Wangop further south and the '*wall of limestone on our [east] side of the river extends for miles back*', so they backtracked and commenced building a bridge to the west bank at 11 am. This was completed and they were all across by 4 pm. They climbed to a relatively level area at 1400 feet (425 metres) and camped, probably about two kilometres SW of where Aukopmin is marked on today's maps. Karius notes '*an immense wall of limestone*' about a mile '*behind us*'; this is marked on the 1:100,000 map and is the extreme east end of the Blucher Range. That night they experienced torrential rain and earth tremors.²⁰

14 May: They set off at 5.45 am. '*Wandering about in a maze of limestone until 10.30 am, when we struck a faint track running west-north-west. Followed this for an hour when we came out on a well-defined track, which in turn brought us to a village, altitude 2000 feet [610 metres]*'. Karius does not state which direction they followed the 'faint track' but presumably ESE. There were '*two young men and their women there*'. They continue along the track '*to another village two hours later*' but no-one was there. '*Continued on in a southerly direction, crossing over the divide at 2.15 pm. Ahead of us low ridgy country . . . a range running away to the east as far as the eye can see. To the south-east, east,²¹ and southwest low country ribbed by innumerable limestone ridges, up to 1000 feet [300 metres] high . . . The valley of the Strickland, about ten miles to the east of us and running south . . . Came to another village and made camp.*'

This settlement was inhabited and they bought a little food. The men were wearing the 'palm nut' phallocrypt rather than the gourd phallocrypt worn by the men in the settlement encountered late that morning. Karius related these people to the Palmer River peoples further south. Eggertsson's map (2003:

¹⁹ On the other hand it appears that the Strickland gorge is wider and allowed Hides in 1937 the opportunity to walk part of the way along the gorge and then hazard rafting the rest of the way through to the lowlands (McGee 2007:160).

²⁰ The Report states the rain commenced at 8.30 am but this must be a misprint - it had to be 8.30 pm. While this is an obvious misprint, one wonders what other crucial data is subject to the same kind of error.

²¹ This must be another error — should be 'south'.

16) suggests that the people that they met late that morning were most likely ‘Aukopmin’ whereas those met in the evening were most likely ‘Menumin’.²² The divide separating these two groups, reached at 2.15 pm, would have been about two or three kilometres west of the Murray River at approximately 141° 58' 30" E x 5° 38' S. Karius’s observation that the Strickland Valley was about ten miles to the east was a fair estimate; modern maps place it 12.5 miles east. This should have raised doubts in his mind about the identity of the river (the Murray) he had recently left behind as he could not have trekked so far west in so short a time from his crossing near Aukopmin.



Figure 10. Reconstruction of Karius’s route through the Murray Valley, skirting the ‘Devil’s Race’ to the west. Map 1:100,000, T601-7286.

²² On Eggertsson’s map, the Menumin would be speakers of the South Dialect of the Konai, and the Mirapmin between the Murray and the Strickland would be speakers of the East Dialect of the Konai (see S & B Arsjo, map p. 31, (www.sil.org/pacific/png/pubs/41239/Konai_Socioling_Survey.pdf accessed 19 July 2012).

15 May: *‘Moved off at 6 am. Travelling south and south-east. Very rough country and many watercourses. Came onto a large stream 10 am. Deep, swift flowing and unfordable. Followed this stream, which I have named “Murray River”, downstream for a mile, then coming to a deep and narrow gorge. A light suspension bridge, made of lawyer cane, at this point. Three hours occupied in crossing. Made camp 4.20 pm.’*

This would be about 142° 1' 30" E x 5° 40' S and they were then on the east side of the ‘Murray’ (**Figure 11**). Karius did not recognise that this was the river he had been following southwards for many days.

16 May: Karius decided to make rafts to travel down this river, despite its many rapids, in preference to struggling through the broken limestone country on foot.

17 May: Raft making completed by noon. Set off at 1 pm but in less than an hour they met an obstruction and had to pause, unload the gear, and attempt to guide the rafts through unladen. One raft was destroyed in the process. They made camp and commenced building two more rafts below the obstruction.

18 May: Completed raft-making and repairs and started off again at 1.30 pm.²³ About an hour later they all came to grief, lost some equipment (including an aneroid barometer) and had to regroup. Karius reports that the river level where they camped was at 350 feet (100 metres).²⁴ However, the 100 metre contour is not reached on modern maps until a few kilometres below the junction of Murray and the Strickland so it is not at all clear where they were at this point.

19 May: *‘Moved off at 6 am following the Murray downstream. Rough travelling over broken limestone country.’*

20 May: *‘Continued our overland journey downstream until noon. The river having been fairly quiet for the past two miles, will have another attempt at raft making.’*

21 May: Continued with raft making.

22 May: They recommence rafting at 6am. *‘Some exciting moments during the morning.’* Halted at noon for an hour and set off again, reaching the junction with the Strickland at 2.30pm. *‘Wildly exciting time here. The Strickland an immense stream of milky white water.’* They lost some more equipment but everyone got through safely and they camped *‘about five miles further downstream’*. Again it seems to have escaped him that this could not have been the same river he had followed downstream to his ‘Devil’s Race’. The volume and colour of the water should have alerted him to that.

After 3½ days travelling on the rafts down the Strickland (plus a two-day interlude of sago-making), on 28th May they passed a large affluent from the NNE and Karius thought this may have been the Carrington, but the Carrington joins the Strickland immediately upstream from the Murray/Strickland junction. The river he refers to was almost certainly the Cecilia which joins the Strickland upstream from

²³ The Report states 1.30 am but this is yet another misprint.

²⁴ This reading raises the question whether Karius had another aneroid barometer or estimated the river level.

the Nomad. It seems he may have inaccurately recalled the report of the 1885 Everill Expedition up the Strickland. Everill gave the name ‘Carrington Junction’ to the confluence of the Cecilia and Strickland:

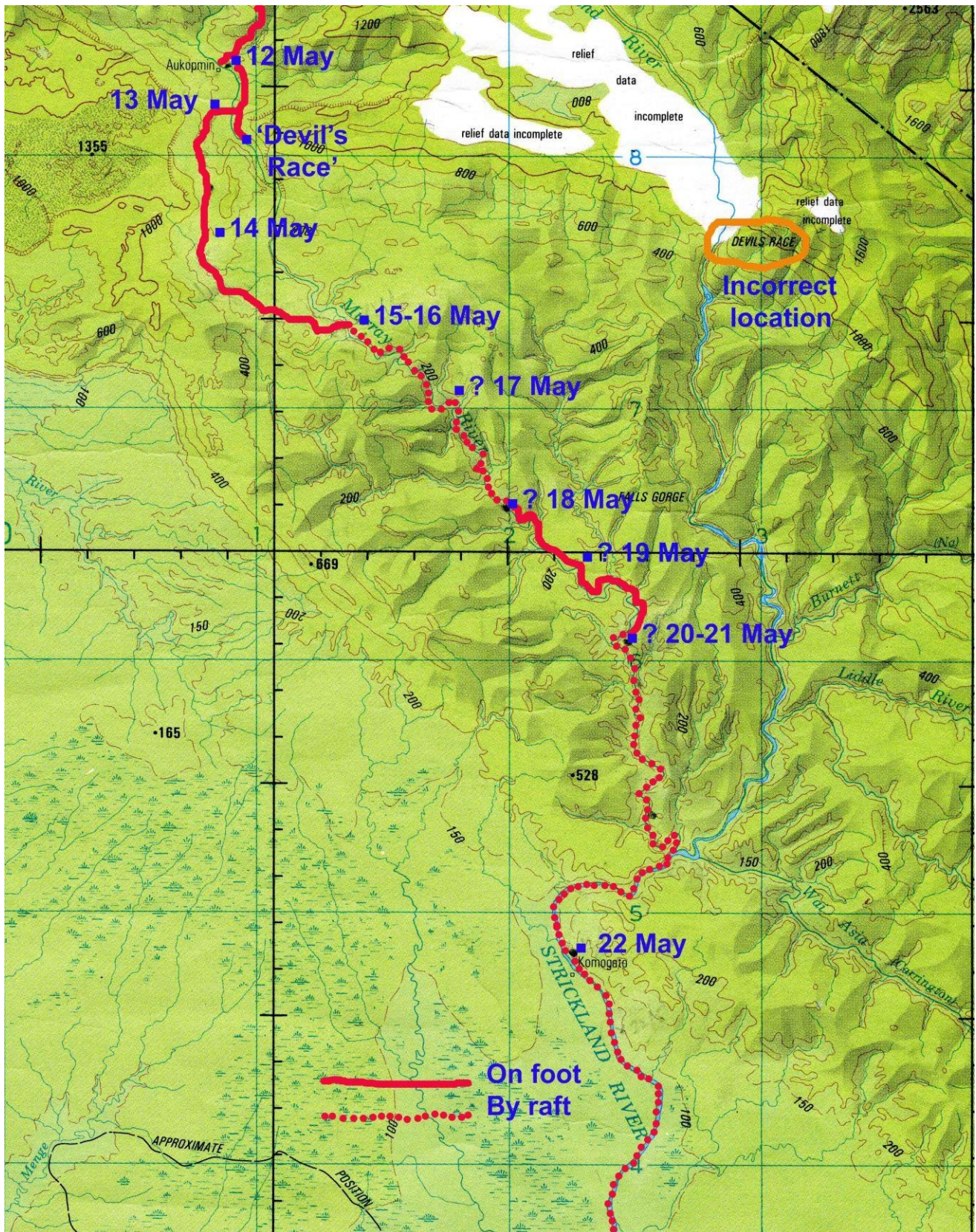


Figure 11. Reconstruction of Karius's route to the Murray-Strickland confluence. Note the incorrect location of the 'Devil's Race' on the Strickland to the east. Map 1:250,000 SB54-7.

On September 22nd after coming up a long straight reach [of the Strickland], we dropped upon a recent camp of natives on a gravel spit where the river makes a junction and receives a large tributary apparently directly from the mountains. I think they must have taken the boat for some new animal seeking to devour them, for they fled on first sighting us, leaving everything behind them, even to their fire-sticks. This tributary goes to the north-north-east, while the main river takes a westerly bend. I name this the Carrington Junction, and the river the Cecilia River, named in honor of Lady Carrington (Lindt 1887: 182).

Karius and his men continued down the Strickland, purchasing canoes at a large village on 3rd June and reached Everill Junction two days later. They arrived at Madiri 9th June and were met there by the government launch *Minnetonka*, which got them to Daru the next day. Champion arrived back via the Fly River a month later.

Karius concluded his report:

With regard to the objects of the patrol, although we did not manage to get on to the Sepik River, I am certain we got on to the watershed, we crossed into the Mandated Territory and penetrated to a depth of 40 to 50 miles, and the courses of the Strickland River, Palmer and Fly Rivers were located.

Conclusion

Karius's diary of his trek through the Murray Valley, while sufficiently detailed to support a fair reconstruction of the journey against the background of modern maps,²⁵ suggests many inaccuracies in measurements of altitude, direction and distance. He seems often to overestimate the distances he travelled and his compass readings and altitude measurements are dubious at times. It isn't at all clear whether his report is verbatim from his field diary or whether there was significant reliance on memory. In any event, his translation of that journey as a map is seriously in error.

There are a number of points in his journey as I have reconstructed it where it is not at all clear exactly where he was located. Although there are sometimes a couple of choices that could be made among the occasionally rather different possibilities, it is clear that he remained in the source basin of the Murray River. It seems that he never even made it to the Sel River at the northernmost edge of the Murray Valley and he certainly did not make it to the Strickland above its junction with the Murray. The extent of his exploratory dash west from the 'large village' (undoubtedly a Baktamanmin village) up the I River is uncertain as it is determined largely by his altitude readings.

It is ironic that had he crossed the I River about where he reached on his 4 May exploratory dash and continued north over the 1800 metre watershed to the upper Sel Valley where a number of Seltamanmin hamlets are located, he might have discovered the relatively easy route across to the Sepik headwaters east of Feramin. This is an old trade route and circumvents most of the high limestone karst country of the route Karius and Champion followed from Bolovip during their second successful attempt.

²⁵ Until the 1:100,000 maps of Edition 1-AAS Series T601 became available, the topography and river systems of central New Guinea were indicated only by sketch maps produced by expeditions prior to the 1940s and subsequently by Administration patrol officers. A forensic review of expeditions and patrols prior to the availability of those maps was not possible.

Karius met with the Baktamanmin, some Kwermin and Aukopmin, but failed to obtain local names for any geographical features in their territory. He briefly met some Konai-speaking people south of the eastern end of the Blucher Range but again failed to communicate with them. Unlike Champion, it appears that he took no photographs and drew no sketches of the landscapes to assist later travellers to recognise what he saw briefly through the almost perpetually generating banks of cloud. It is as though he was stumbling about in the dark.

The most problematic section of his trek was from his 5 May camp on the I River to his May 10 camp on that same river, presumably where it is met by the Awel (Weim) from the north and becomes for the local people the Wangop (Murray) River. The time taken seems too long for the short distance travelled. Conversely, the 10 May dash north to a 'saddle between two mountains, at an altitude of 7350 feet' and back seems too far (if he was following the Awel River) for less than a day of walking. Again, this makes one wonder whether he kept an accurate field diary or whether there was significant reliance on memory.

This is not to demean his feat of endurance and his management of the men who were with him. The police were, as he acknowledged, 'a splendid body of men . . . Even under the most trying conditions they were willing, cheerful, resourceful and courageous' (1927: 101). This implies mutual respect. And Karius freely praised Champion for the work he did to the northwest while he was exploring north-eastwards. Unlike Hides on the Strickland a decade later, he lost no men to illness or accident.

This reconstruction is perhaps only of minor interest historically (a footnote to a footnote of the exploration of New Guinea), especially in the context of Karius and Champion's second expedition which successfully crossed from the Fly to the Sepik. Hubert Murray wrote in the *Annual Report of Papua for 1927-28* (quoted by Sinclair 1988: 83):

This is by far the most important and the most difficult feat of exploration that has ever been performed in New Guinea or any of the adjacent islands . . . it is doubtful whether any expedition of anything like equal difficulty and importance has ever been attempted with such scanty resources . . .

There is however one small detail that requires amendment on today's maps (apart from the usual confusions of river names). The 'Devil's Race' as named by Karius is where the Murray breaks through the mountains to spill out into the low country to the south; it is not located on the Strickland River. Perhaps that gorge requires a new name.

POSTSCRIPT

This paper was developed as a result of a letter from Nicholas Modjeska to Bill Gammage setting out his belief that Karius was the first European to travel down the highlands section of the Strickland but mistakenly calling it the Crystal River. Gammage passed the letter on to Chris Ballard who passed it on to me. In 2008, I had expressed to Ballard my long-held doubts about Karius's map and the report of his 1927 excursion. We were 'on the same page' about this but apart from the brief critique of Karius's account by Champion and another by an unknown author of an Appendix to a 1938 Report of the Australasian Petroleum Company (APC 1938), nobody so far as we knew had attempted to check Karius's account in detail. The author of APC 1938 identified errors in Karius's account but accepted that Karius had found the Strickland River and followed it down to the 'Devil's Race', diverted west to find the Murray River and followed that river down to its junction with the Strickland.

I completed my own critique in November 2012 (except for a few details subsequently added during 2013) and I was about to post it to this website when a colleague, Garrick Hitchcock, forwarded to me Noel Ticehurst's reconstruction of Karius's journey, published as 'The North-West Patrol Remapped' in the March and June 2012 Newsletters of the Royal Australian Survey Corps Association (NSW). I decided to defer posting my paper until I had the opportunity to incorporate a critique of Ticehurst's reconstruction. Ticehurst, like the author of the APC 1938, accepts that Karius reached the Strickland well upstream (north) of the 'Devil's Race' as marked on today's maps.

However, various commitments have prevented me from revising this paper for over a year and it seems best to release my version now and add a critique of Ticehurst's reconstruction at a later date.

Various colleagues have been helpful in supplying much-appreciated information and maps, and commenting on early drafts of this paper. Among them are Chris Ballard, Sveinn Eggertsson, Hugh Davies, Bill Gammage, Garrick Hitchcock, Phil Fitzpatrick and James Sinclair.

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