
The elder men in Wanigera will tell you of a time when the ‘burning mountain’ burst asunder, and sent flaming streams of lava flowing down to the sea, and they remember how the people dwelling on the higher ground made haste to build new and safer homes more near to the shore, and how from that time onwards travellers and huntsmen have been careful to keep away from the slopes of Keroro.

A.K. Chignell (1911)

First Impressions

Melanesians have occupied the interior of New Guinea Island probably for more than 30,000 years, but nineteenth century Europeans regarded it as terra incognita. Many visiting Europeans would have doubted why anyone would want to live in such rugged, intimidating, and inhospitable mountainous terrain. Ridge after ridge ascends steeply into the impenetrable clouds of the central, forest-covered mountain ranges, so abruptly that possibly habitable valleys are invisible from the coast. Some access to the base of the high ranges is afforded by sailing up the island’s large rivers — the Sepik and Ramu in the north and the Fly/Strickland in the south — but movement overland between the rivers is difficult and dangerous. New Guinea, therefore, remained a ‘mystery’ island until well into the twentieth century, an unknown prospect for European imaginings in which volcanoes were part of the anticipation of what actually may be found there. Many of these imaginings found their way into print and there was an enthusiastic market for stories, based on fact or entirely fanciful, of mysterious and awe-inspiring New Guinea.

Captain J.A. Lawson reported on an epic return journey made in 1872–1873 across the widest part of New Guinea, starting on the south coast. He encountered two active volcanoes during his expedition, as well as other volcanic landscapes, and climbed to the crater of one volcano — the ‘column of smoke that ascended from the centre was enormous, and hung in a dense cloud above, that quite excluded the heavens from our sight’.1 Lawson, some days later, encountered a range of snow-capped mountains, one of which was the 16,743-foot Mount Vulcan — a ‘Papuan Etna’. This active volcano, however, was overshadowed by

1 Lawson (1875), pp. 135, 137.
the nearby, 32,783-foot Mount Hercules. Lawson’s descriptions are believable in their volcanological precision — perhaps he had visited Etna in Italy — but his book is a fabrication. He also described exotic wildlife including giant monkeys, spiders and scorpions, and made the improbable claim that snow-covered Mount Hercules was the highest known mountain, higher even than Everest.

The Reverend Henry Crocker of St Ann’s Parsonage, Weremai, New Zealand, published in 1888 his edited narrative of the adventures of Louis Trégance, a French sailor, who had spent nine years amongst the Orangwok tribe of New Guinea. Trégance, having been shipwrecked with others in south-eastern Papua, went on to make an extraordinary journey westwards to the city of Kootar in central New Guinea, and over the Tannavorkoo, or Tannavakoo, Mountains where he saw an active volcano — ‘Tannavorkoo’s kitchen’ — in eruption, ‘one of the many in active operation in the interior of the country’. Trégance eventually reached the goldmining city of Watara, in western New Guinea, where he introduced mining techniques that he had learnt on the Victorian goldfields in Australia. He witnessed many dramatic events in his travels, including an eruption from a volcano that ‘… began to discharge its molten flood, which ran for miles over the country, doing a vast amount of injury, and causing the loss of many lives. A great panic fell upon the population of Watara as the lava threatened to reach the town itself’.2 This narrative too is entirely fictitious, including the existence of Kootar, Watara and the Orangwoks, which leaves the reader to wonder about the motives of the mischievous Crocker and the true identity of the adventurous Trégance. Both narratives are examples of the genre of imaginary voyages that exists within English travel literature that had been popular since the beginning of the Enlightenment, particularly in Great Britain.

Volcanologist Karl Sapper took a more serious and scientific approach to identification of active volcanoes in New Guinea. Yet, in his 1917 compilation of eruptive activity in Melanesia,3 he was able to identify, and then only tentatively, just two volcanoes — both in the Bird’s Head or Vogelkop region of western New Guinea, and both now known to be non-existent. The first identification was based on the false report by Dampier of volcanic activity in 1700 at the western end of the Bird’s Head. The second one derived from a report of ‘fire’ and creation of a large, smoking, vegetation-free area following an earthquake on the night of 21–22 May 1864, further east in the Arfak Mountains. Lengthy discussions on the origin of the fire, which turned out to be not volcanic in origin, were published in 1921–1922 in Sapper’s The Volcanic Mountains of New Guinea.4 Sapper also took the opportunity to include descriptions of volcanoes in south-eastern New Guinea, at the ‘tail’ of the Bird, where the British and Australians had long known of the existence of youthful volcanoes.

3 See Sapper (1917).
4 See Sapper (1921–1922). The possible existence of a volcano, later called Umsini, in the Arfak Mountains of the Vogelkop continued to be reported in the volcanological literature for at least another 50 years, until M.
Figure 29. Numerous volcanic features were noted by Captain Lawson in his imaginary journey into the highlands of New Guinea.

Source: Lawson (1875; fold-out sketch map).

British New Guinea and Victory Volcano

South-eastern New Guinea had become a British Protectorate in 1884, the year that Germany claimed the north-eastern portion of New Guinea calling it Kaiser-Wilhelmsland. There had been earlier raisings of the Union Jack in order to claim all of eastern New Guinea — for example, in 1873 when Captain John Moresby did so, and again in 1883 when magistrate Henry Chester, under orders from the Queensland Government, raised the flag and read a proclamation at Port Moresby. The British Government ignored these ceremonies. There had also been previous Australian interest in this part of New Guinea from explorers, naturalists, gold diggers, labour recruiters and missionaries, and even some

Neumann van Padang (1976) — author of the 1951 Indonesian part of the then definitive IAVCEI Catalogue of the Active Volcanoes of the World — finally discredited its identification.
early settlement — most notably the missionary W.G. Lawes at Port Moresby in 1874. Now, however, the 1884 British proclamation of the protectorate meant that there was official government involvement in the running of the new territory. It did not, however, long remain a protectorate, because of disabling jurisdictional restrictions and, by 1888, Britain had claimed full sovereignty, had annexed the territory and had named it the colony of British New Guinea.5

William McGregor in 1888 became British New Guinea’s first Administrator, a position he occupied for the next ten years. McGregor was the ambitious son of a poor Scottish crofter and had become a doctor of medicine, in Scotland, before embarking on his successful career as a British colonial administrator.6 He had interests in science and the classics, was an energetic and scientifically curious traveller throughout the colony, and appears to have been the first European to infer that Mount Victory in eastern Papua was a recently active volcano. He observed in late July 1890 that the mountain had ‘great masses of bare rock’ near its summit and that

Its sides were scored and marked by brown lines from near the summit to its base; these at first looked as if caused by lava running down the mountain, but the closest inspection could detect no presence of lava, so that it was concluded that these lines had been caused by recent great earthslips … a few days later we had the opportunity in the early morning of seeing numerous columns of steam rising, some from the very tops of the two crests of Mount Victory … [where] vegetation is very scant … Mount Trafalgar, on the contrary, is covered over the summit with dense forest. Flame was not at any time seen by us on Mount Victory, nor could we obtain from the natives any information regarding it.7

In addition, Anglican missionary A.K. Chignell in December 1909 observed that Victory volcano had ‘white steam, or spirals of darker smoke ascending from a dozen fissures in its rugged crown’, and went on to record local stories of past eruptions and the transfer of vulnerable homes on the mountain to safer places near the coast.8

And Resident Magistrate W.M. Strong in 1916 reported:

Reliable native accounts [telling of] … an extensive eruption — one or more villages were overwhelmed — and the Awanabairia people, who then lived on its slopes, fled to their present home at Lakwa.9

5 Whittacker et al. (1975, Documents D1–57).
6 Joyce (1971).
8 Chignell (1911) pp. 1–2.
There are other reports, several of them derivative, and oral history too, about the Victory eruption or eruptions that produced these effects. Some refer to night-time glow from the volcano and others to how ships used the glow for navigational purposes, and there are reported observations of water vapour being emitted from the volcano as late as the 1930s. No documents by eyewitnesses of the Victory eruptions have been found, however, and therefore separating fact from fiction is difficult. Nevertheless, the available evidence is indicative of explosive eruptions having taken place at Victory, probably in the late 1880s, impacting on some villages, possibly disastrously, and almost certainly producing pyroclastic flows rather than the ‘landslides’ inferred by McGregor.¹⁰

¹⁰ A great deal of information on the nineteenth century eruption at Victory was compiled in the 1970s by J.R. Horne, a former Territory of Papua New Guinea agricultural officer in the Northern Province of Papua. I am grateful to Mr Horne for access to his unpublished work and to the valuable references contained in it. See also Smith (1981).
The amount of geological knowledge that had emerged from British New Guinea by 1890 was limited and, indeed, had been obtained largely incidentally by explorers and general naturalists primarily interested in other matters. The Queensland Government geologist A. Gibb Maitland visited some coastal areas in 1891, using the British New Guinea Government yacht Merrie England as his base, but his fieldwork was restricted by the movements and requirements of the administration staff on board. Nevertheless, Gibb Maitland summarised in his valuable report the known geological findings up to that time, and he included his own descriptions of the youthful volcanic nature of the D’Entrecasteaux Islands, where there are hot springs and obsidian, as well as volcanic cones such as make up Dobu Island.12 None of the D’Entrecasteaux volcanic cones, however, are as large as the towering Victory volcano on the mainland that MacGregor had observed the year before. Gibb Maitland thought the nearby, lofty, Mount Dayman was also the remains of a volcanic cone, but he was mistaken.

Gibb Maitland pronounced the geological pioneer of British New Guinea to be John MacGillivray, the talented naturalist who had accompanied Captain Owen Stanley during the British scientific voyage of the HMS Rattlesnake to the Coral Sea coast in 1849. This claim is despite the restrictions on landings for fieldwork along the New Guinea coast that were imposed on the frustrated scientists by the wary Stanley, who considered that ‘… the natives are warlike, very numerous, well armed and very treacherous … [and] will certainly consider the first party who attempt to advance towards the interior, whether by land or water [to be invaders]’.13 MacGillivray was one of a large team of surveyors and scientists on board the Rattlesnake, which also included the young T.H. Huxley, later to become a major proponent of Charles Darwin’s theory of evolution. No observations of volcanological significance, however, were made from the Rattlesnake. This is hardly surprising as no volcanoes are visible from the New Guinea coastline that was visited by the vessel, although young ash layers are now known to mantle much of this part of the New Guinea cordillera that, somewhat ironically, was named after the reluctant captain — the Owen Stanley Range.

**Evan R. Stanley in Papua**

A young Australian graduate in geology, Evan R. Stanley — he was no relation of Owen Stanley — arrived in Papua from the University of Adelaide in 1911 as the territory’s first government geologist. That year is additionally significant because Europeans in 1911 became aware of oil and gas seepages in the lower

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11 Gibb Maitland (1891–1892).
Vailala River area, west of present-day Kerema on the Gulf of Papua. This discovery marks the beginning of oil and gas exploration in south-eastern New Guinea and the triggering of periods of intensive geological mapping and exploration that led, secondarily, to the discovery of many volcanoes on the mainland. New South Wales Government geologist, J.E. Carne, investigated the oil find in 1912, as well as earlier reports of coal in the Purari River.

The colonies of Australia federated in 1901 to form the new nation of the Commonwealth of Australia, and consequently Britain gave up its New Guinea possession to the new nation, which, nevertheless, remained very much a part of the British Empire. South-east New Guinea in 1906 was proclaimed a colony — the Territory of Papua — following passage of the Papua Act by the Australian Parliament in late 1905. Hubert Murray became the new Territory’s Lieutenant Governor, occupying this influential position until 1940, and sending his young officers — assistant resident magistrates and patrol officers also known as kiaps — into the unexplored Western and Delta districts of the Territory. The Australian Government was aware of the success of oil exploration in Persia. It was aware, too, of the exploration support being provided by the British Government, whose navy in 1914 was switching from coal to oil. Australia therefore secured the services of geologists from the Anglo-Persian Oil Company in assessing the Territory’s oil-producing potential.

**Figure 31. Evan R. Stanley with his family in Port Moresby in 1919.**

Source: The Stanley family and H.L. Davies.

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Evan Stanley became involved with the oil explorers, but his main purpose was geological mapping and assessment of mineral potential in general.\textsuperscript{15} Australian gold prospectors had been attempting the retrieval of alluvial gold in south-eastern New Guinea since the 1870s, and miners had been active at officially declared goldfields during British New Guinea times, including at Sudest, and on Misima and Woodlark islands, as well as on the mainland at Milne Bay, Yodda and Lakekamu.\textsuperscript{16} None of the gold miners came away as wealthy men. Many were simply ‘gully rakers’ and ‘tucker men’ — those prepared simply to scratch out enough gold to maintain the barest of livings yet retaining dreams of wealth.

Figure 32. Areas in eastern Papua mapped by Evan R. Stanley and consisting of geologically youthful volcanic rocks, include Mount Victory, which is labelled on his map as an active volcano — see the arrow on the right. Mount Lamington and the Hydrographers Range (left) are grouped together and are not identified as volcanically active. C.D., N.D., and so on refer to the names of administrative districts.

Source: Stanley (1924, including the geological map).

Stanley was an energetic and conscientious field geologist, and a prolific reporter of his geological findings. He published in 1924 a landmark report of his and others’ work, accompanied by a coloured geological map, and including a review of what was known about the volcanoes of the Territory of Papua. The volcanic nature of the D’Entrecasteaux Islands, as described by Gibb Maitland, was confirmed, but Gibb Maitland’s mistake — that Mount Dayman was a volcano — was repeated. Victory and Trafalgar were shown as being made up

\textsuperscript{15} Davies (1987).
\textsuperscript{16} Nelson (1976).
of young volcanic rocks, and Victory was identified as ‘apparently the only active volcano in the Territory’. A significant point, particularly in view of what would happen in 1951, is that Stanley mapped the Quaternary volcanic rocks of the Hydrographers Range and Mount Lamington — both to the west of Victory — as a single geologically youthful unit, although did not point out that Lamington is younger than the rocks of the Hydrographers Range. Nor did he mention the presence of a crater at the summit of Mount Lamington, or the youthful, solidified, lava masses near the crater. Presumably, however, he must have realised that an eruptive centre, or centres, lay somewhere within the mapped area of Mount Lamington. Stanley would have been able to see all of these young volcanic features from the air, if aircraft or aerial photographs had been available to him.

There is, finally, another significant aspect of Stanley’s volcano-related work. He identified the near-coastal Aird Hills, at the head of the Gulf of Papua in the far west of the territory, as volcanic and mapped a young volcanic area to the north of it that includes Mount Favenc. These are indications of discovery of the huge Fly-Highlands volcanic ‘province’ that extends northwards into the high cordillera of New Guinea — so high, indeed, that there were glaciers on the summits of its impressive volcanoes during the Pleistocene. Stanley’s map, therefore, hints at the existence of two separate volcano groups. First is the then better known one in eastern Papua, which includes Victory and Lamington volcanoes. Second is a western group that includes the southerly volcanoes of the Aird Hills and Favenc.

Australians in the Territory of New Guinea after 1920

The Australian military gave up its control of what had been German New Guinea in 1921, as a consequence of the signing of the Treaty of Versailles following the end of the First World War. It handed over the newly named Mandated Territory of New Guinea to an Australian civil administration, which would be accountable to the Australian parliament and the League of Nations. Thus were formed separate Australian administrations of two contiguous colonial territories, which, for the next 20 years, would be characterised by a strong degree of mutual independence, a lack of close collaboration, competition at times, and even resentment when the old goldfields in Papua became worked out and gold diggers in the Mandated Territory discovered the rich auriferous gravels of the Bululo River system. These riches were in addition to the militarily acquired plantations, road networks, administrative system and ready-made
towns, such as Rabaul, that had been taken from the Germans. Some Australian administration officials became either ‘Papuans’ or ‘New Guineans’ in their loyalties. From 1921, however, both administrations, would start to benefit from a new event — the arrival of aviation in Papua and New Guinea — and so would the study of volcanoes.

Captain Frank Hurley, traveller and photographer, led a privately funded, public-interest expedition to New Guinea in 1922. He did not achieve his aim of flying across the island, but one of his aircraft — a Curtiss Seagull biplane flying boat — took off from Port Moresby’s harbour on 5 September 1922 in the first known flight of an aircraft in Papua and New Guinea. Use of aircraft for aerial reconnaissance would later greatly assist the Europeans of both territories in their explorations, and the oil geologists would benefit and learn the skills required from aerial photography and airborne observations to determine the geological structures of the country, including faults, folds and dipping strata. Volcanologists, furthermore, would see the way in which volcanoes were laid out and identify features, such as craters and calderas, that were not visible from the forest floor. They would be able to observe eruptions during aerial inspections, and pilots would become front-line observers of eruptive activity. Some would have to learn techniques of avoiding high-rising, aircraft-damaging, ash plumes.

The legendary ‘Sharkeye’ Park, an Englishman, together with Jack Nettleton, who had been part of the Australian expeditionary force that had invaded Rabaul in 1914, found gold in a young volcano on Koranga Creek on the Bulolo in 1922, and worked it for a year before outsiders heard of the discovery. But a goldrush to the area did not start until 1926 when Bill Royal climbed high into the Upper Edie Creek south of Koranga and found New Guinea’s richest alluvial field. One of the world’s last gold rushes was triggered, and hundreds came to the Morobe Goldfield in search of wealth. Amongst them was Michael J. ‘Mick’ Leahy, who had been cutting wood for railway sleepers in Queensland and who had left his truck by the side of the road in Townsville when he heard about the Upper Edie gold strike. Leahy did not achieve wealth from gold but he prospected for mining companies and this allowed him, together with his brothers Pat, Jim and Dan, his friend Mick Dwyer, and Patrol Officer Jim Taylor, to achieve fame through exploration of valleys in the highlands, making remarkable ‘first contacts’ with Melanesian communities, cutting rough airstrips for hair-raising landings by supply aircraft, and also identifying volcanoes.

19 Nelson (1976).
20 Leahy (1936, 1994).
Leahy and Dwyer in 1930 looked out into wide grass-covered valleys in the eastern highlands and realised that they

had discovered a totally new country. This land was populated by tens of thousands of Stone Age natives, whose village fires at night extended in the distance as far as the eye could see across the grass valleys and ranges. [Then, looking down on the eastern end of a highland valley river system, and from] the bloated bodies of natives floating aimlessly in the current … [and from] the innumerable skulls and bones littering the sands, we concluded that there must be an even larger valley or valleys … coming in from the west and that the native population must be huge.\(^{21}\)

The Melanesians of these populated valleys met Leahy and his companions in the following years in a dramatic series of ‘first contacts’ during which the gold-seeking Europeans would find out more about the great Wahgi Valley, its peoples and three extinct volcanoes that dominate the central highlands — Hagen, Keluwere and Ialibu. Leahy and his party climbed to the summit of Keluwere — which is today better known as Giluwe — on 15 June 1934, measuring there a height of 4,100 metres above sea level. Leahy wrote in his diary for that day: ‘There is no doubt that it [Giluwe] was one of the many gigantic volcanoes which in the dim past formed this portion of New Guinea’. He also wrote in his later memoirs that:

It must have been a tremendous mountain in its active days. The whole Hagen district must have been a frightening, awe-inspiring area when Hagen, Keluwere, and Ialibu, three points of a volcanic triangle, were active. The local legend of dust from above, which accumulated on the roofs of houses and made them collapse, was amply supported by physical evidence in the present ash beds above lava flow level. Still, the country appeared to have been free from such activity for so long that the legend seemed unbelievable.\(^{22}\)

Leahy is here referring to a legend that is widespread throughout the highlands, yet whose volcanological significance would not be properly addressed until the 1970s. Young ash layers are common throughout the region, but which, if any, of the highlands volcanoes produced them? What volcanological information is contained in the legends? When did the ash falls take place? Are all the highlands volcanoes as extinct as Hagen, Giluwe, and Ialibu seem to be?

\(^{21}\) Leahy (1994), pp. 9–11. The bodies and bones were presumably the result of tribal warfare.

\(^{22}\) Leahy (1994), p. 201. There is some uncertainty as to whether Leahy heard about the dust-fall legend in the early 1930s, as it is not mentioned in the edited version of his journeys published in 1936 or in his diary for 1934 which is held by the National Library of Australia in Canberra (NLA MS384).
Figure 33. The strikingly craggy, alpine-type scenery of the summit of Giluwe volcano was formed by glaciation about 15,000 years ago. Glacial moraines are seen dominating the foreground and middle slopes.

Source: D.H. Blake. Geoscience Australia (GIL69-4-10).

The name ‘Hagen’ was used by Leahy for this imposing volcano because he believed it to be the mountain that German geomorphologist W. Behrmann had seen from ranges south of the Sepik River in 1912. Leahy later, however, began to have doubts about this usage because he could not see the Sepik Basin when he climbed the volcano, and Lutheran missionaries later told him that the mountain was too far inland to be seen from the low country. Mount Hagen — Hagen Gebirge — was in fact named in 1896, but not recognised as a volcano, by the German botanist Carl Lauterbach, who had been on an expedition to the Ramu River valley. The mountain was named after Kurt von Hagen, a Prussian military officer who was briefly Landeshauptmann in German New Guinea, until he was shot dead by a Buka policeman in 1897. Behrmann himself was part of the Sepik River Expedition of 1912–1913, and took part in land expeditions southwards from the Sepik. He came within viewing distance of the grass-covered lower slopes of Mount Hagen, which, like Lauterbach, he did not recognise as a volcano. Easy access to the heavily populated highlands would have been possible from that point, but Behrmann turned back because his supplies were running out.\(^{23}\)

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\(^{23}\) Löffler (1977) and Firth (1983). I am grateful to Dr Löffler for additional information about the naming of Hagen volcano used in this paragraph.
Australians in the Territory of Papua before 1938

Europeans were making further volcano discoveries on the Territory of Papua side of the border with New Guinea, although the mountains here were being identified mostly as prominent peaks rising impressively from the flat Fly River plateau. The Mackay-Little Expedition of 1908, for example, was in the Upper Purari looking for coal deposits that had been reported earlier by McGregor, and the party struck out westwards reaching and naming Mount Murray. This inactive volcano would also be used as a geographical marker for later European explorations. Two government patrols of particular significance were undertaken in the mid-1930s — the first by J.G. ‘Jack’ Hides and L.J. ‘Jim’ O’Malley in 1935, on the Strickland-Purari Patrol; and the second by Ivan F. Champion and C.T.J. ‘Bill’ Adamson in the following year, on the Bamu-Purari Patrol.24

Hides and O’Malley travelled eastwards from the headwaters of the Strickland River, between Sisa and Bosavi mountains — both of which are now known to be Pleistocene volcanoes — and then north into the populous Tari River valley where the Huli people encountered them in a series of ‘first contacts’. Anthropologists would later collect stories from the Huli of mbingi, or ‘time of darkness’ and, with others, would interpret what these tales — the same ones mentioned by Leahy — mean in terms not only of modern volcanic eruptions and ash falls, but also of the Huli’s unique, and apocalyptic, world view. Hides and O’Malley climbed eastwards out of the Tari valley between two peaks, the southern one of which they named Mount Champion, but which today is known as Kerewa, a Pleistocene volcano. The northern mountain is Doma Peaks, a volcano that much later would be discovered to have thermal activity and therefore possibly a potential for future volcanic eruptions. Hides and O’Malley completed their famous journey by patrolling south-eastwards through the headwater tributaries of the Purari to Mount Murray and then to the navigable Kikori River. An appreciative Australian public was made aware of their arduous journey when Hides published his successful book *Papuan Wonderland* in 1936. Hides did not refer to volcanoes there, but he did write that the Leonard Murray Mountains — his name for Bosavi — ‘appeared like a giant Fujiyama [the famous Japanese volcano], drawing themselves together from the plateau’.25

Champion and Adamson undertook their well-organised government expedition in 1936. This Bamu-Purari Patrol was preceded by aerial reconnaissance, and its course was better navigated than was Hides and O’Malley’s Strickland-Purari Patrol. Champion used astrofixes, for example, and a heavy radio receiver was carried for communications. Champion had accompanied Charles Karius in

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1927–1928 in an epic crossing of New Guinea from the Fly to the Sepik, well to the west of the Fly-Highlands volcanoes, and he would later become involved, as a senior officer of the Administration, in overseeing the relief effort following the 1951 Lamington disaster. Champion and Adamson, who approached Bosavi from the south-west, noted the existence, well away from the main mountain, of a crater lake and ‘much loose volcanic rock’. These are part of a volcanic field formed by eruptions from many small volcanic centres south-west of Bosavi. The party spent many days on the northern flank of Bosavi prospecting for gold, but none was found. Champion wrote that ‘This mountain massif may be likened to a giant octopus, the peaks being at the head, and the spurs the long arms which run out for miles with deep gullies between’.26 Champion also noted the dominating presence to the north of a conical mountain, named Sisa, as the patrol moved eastwards to Lake Kutubu. Champion and Adamson travelled to the northern sides of Giluwe and Ialibu and then, on their return journey, between Suaru and Karimui mountains, down to the Purari River near Mount Favenc. All of these named mountains are Pleistocene volcanoes.

Figure 34. The deeply eroded volcano of Mount Bosavi may originally have been as high as 3,800 or 4,400 metres above sea level, as suggested by the two dashed lines. The lower reconstructed profile may be the more likely. Bosavi today is still an impressive volcano, even in its eroded state, rising from the Fly River plateau in forested and still sparsely populated country, and occupied by a breached crater that has been enlarged by erosion. The mapped extent of Bosavi is greater than that of any other volcano in Near Oceania.

Source: Adapted from Mackenzie & Johnson (1984, Figure 25B).

The oil company geologists were making geological discoveries, especially after Oil Search Limited in 1936 was granted Special Permit 5 enabling aircraft-supported exploration from the Gulf of Papua up to the border with the Mandated Territory. One of the company’s geologists, S.W. ‘Sam’ Carey, published in 1938 what, for its time, was a groundbreaking and scientifically influential paper ‘The

26 Champion (1940), p. 199.
Morphology of New Guinea’.27 Carey, who would later achieve fame as an ardent exponent of the theories of continental drift and of an expanding Earth, took the report of the Champion and Adamson patrol as a basis for his identification of several volcanoes in what he called the ‘Southern Foothills’ of New Guinea, but, curiously, he did not refer to Hagen, Giluwe, and Ialibu volcanoes further north in the central cordillera. The reasons for this are unclear, but the omission gave the false impression, to readers of the peer reviewed scientific literature at least, that the impressive Fly-Highlands volcanic province was not as extensive as it is now known to be.

Geological surveys of New Guinea were interrupted by the Second World War and the full extent of the Fly-Highlands province would not be fully appreciated by the wider geoscientific community until the 1960s, when the eruptive potential of these magnificent volcanoes would also become better understood. Volcanological attention would be directed, anyway, to Rabaul volcano as a result of eruptions in 1937, and to the volcanoes in south-eastern New Guinea where the most deadly natural disaster in historical time in Near Oceania would be produced by Lamington volcano in 1951. The Fly-Highlands volcanoes were, as a result of these events, to an extent sidelined.

Figure 35. The considerable extents of the volcanoes of the Fly-Highlands province are shown clearly by the areas of volcanic deposits and rocks mapped by geologists during the 1960s and 1970s.

Source: Adapted from D’Addario et al. (1975). See also Mackenzie & Johnson (1984, Figure 1).

27 Carey (1938). See also Noakes (1939).
References


