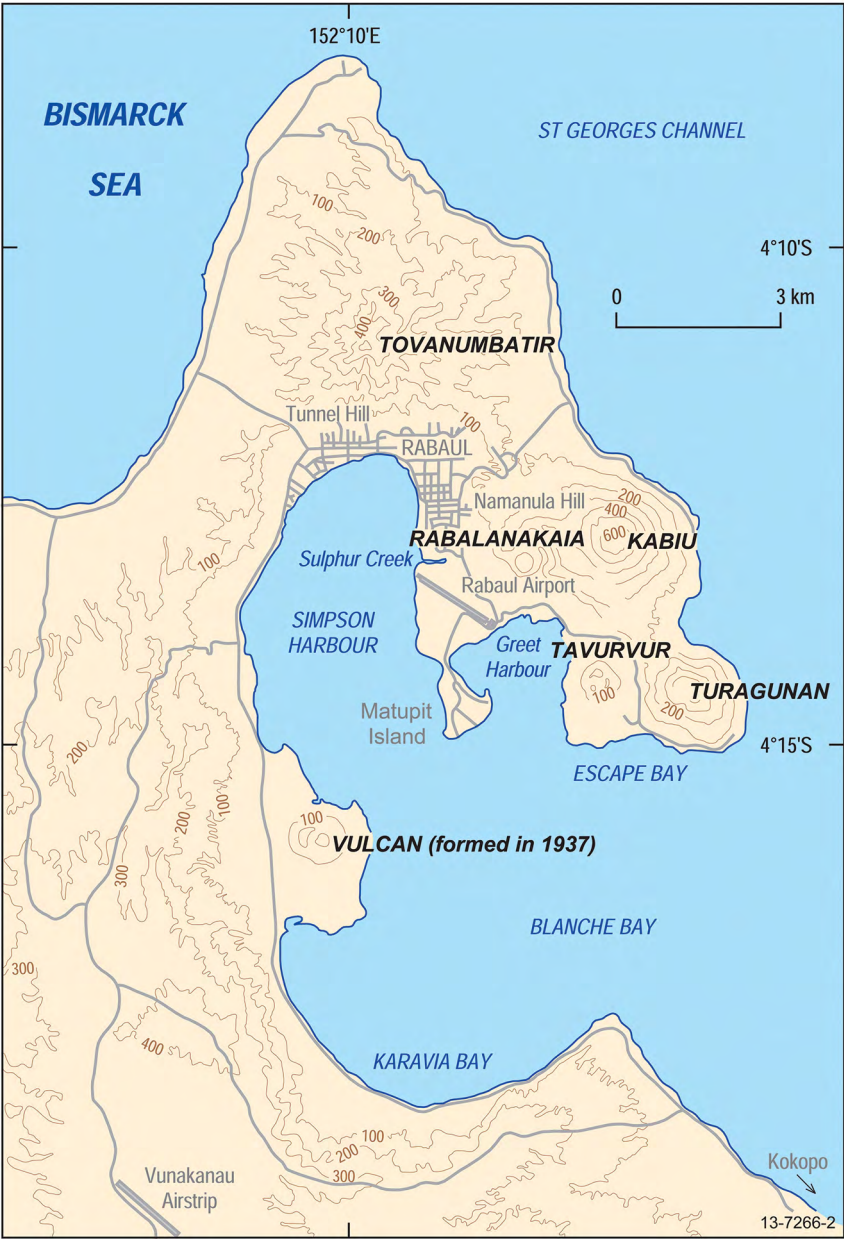


# Introduction

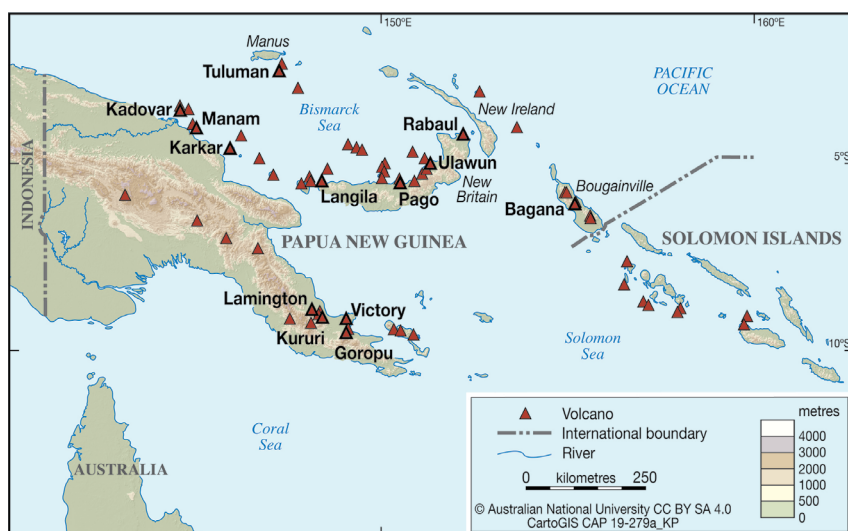
More than 500 people, mainly local Tolai villagers, were killed in 1937 by a volcanic eruption on the shores of Blanche Bay in the north-eastern Gazelle Peninsula area of East New Britain (Figures 0.1 and 0.2). Both Vulcan and Tavurvur volcanoes were in simultaneous activity for a short while in 1937. This disaster took place during colonial times when Australian authorities used Rabaul town as their administrative capital, subjugating the Tolai to a different way of doing things. The disaster was the central theme of *Volcano Town: The 1937–43 Rabaul Eruptions*, a book we wrote about 40 years ago (Johnson and Threlfall 1985). The primary aim of the book was to present photographs of the 1937–43 eruptions and their damaging effects for the benefit of people throughout the Blanche Bay area in the early 1980s who were concerned that another disastrous eruption might be imminent.

This apprehension was because of the increased numbers of local earthquakes being felt by people and recorded by the Rabaul Volcanological Observatory (RVO) as well as the slow rise of part of Matupit Island (changes had begun to be noticed about 10 years earlier). The years 1983–85 became known as the ‘crisis’ period. The great majority of people in the Blanche Bay area in the 1980s were post–World War II newcomers or else were too young to remember the eruptions of 1937–43. Our earlier book, *Volcano Town*, thus was very much a ‘public awareness’ document for local consumption rather than an account suitable for a wider audience beyond the shores of Papua New Guinea (PNG), including an academic one.



**Figure 0.1. Blanche Bay area in the early 1980s.**

The volcanic peaks of the Blanche Bay area, including the active volcanoes of Vulcan and Tauruvur, are shown in this map of the north-eastern Gazelle Peninsula from the early 1980s (adapted from Johnson and Threlfall 1985, 4). The street layout for Rabaul town is shown as it was before the 1994 eruption destroyed most of the town's eastern part.



**Figure 0.2. Volcano distribution in Papua New Guinea and Solomon Islands.**

The triangles in this map of modern-day Papua New Guinea and Solomon Islands represent volcanoes that have known or inferred Holocene eruptions, or those with possible Holocene eruptions, together with three active geothermal fields (not named on this map) where there is no known Holocene volcanism (adapted from maps by Simkin and Siebert 1994, 58; Siebert, Simkin and Kimberly 2010, 75). Rabaul (including neighbouring Tavui) is home to the easternmost volcanoes of the zone known as the Bismarck Volcanic Arc that runs westwards through New Britain along the southern margin of the Bismarck Sea to the Schouten Islands (which include Kadovar and Bam) in the far west (Carey 1938). The Rabaul volcanic complex (Figure 0.1) is still recognised today as PNG's highest-risk volcanic area on account of the frequency and size of its past eruptions and the close proximity, and therefore vulnerability, of nearby communities (Lowenstein and Talai 1984; RVO 2014).

There were several motivations for us in returning to the 1937–43 eruptions in Blanche Bay. First, Vulcan and Tauruvur volcanoes were again in eruptive activity in 1994, damaging much of Rabaul town, with those at Tauruvur continuing intermittently until 2014. We were interested therefore in seeing how these 'twin' eruptive periods from two different times compared with one another. Second, wideranging disaster-management and geoscientific investigations have been prolific in recent decades, including ideas on how the volcanic systems in Blanche Bay 'work' and how at-risk communities can be better prepared for likely disasters. This work began when the RVO was re-established in 1950, accelerating through the following decades and including geological studies of volcanic deposits produced by eruptions many times the size of those in 1937–43. Much of this investigative work

after 1975—when PNG achieved its political independence—was funded by international development-assistance agencies. We were motivated, then, to attempt a summary of all this work while remaining focused as far as possible on the 1937–43 eruptive period.

Third, we wanted to deal in greater detail with the historical Tavurvur and Vulcan eruptions of 1878 that took place well before the town of Rabaul was established. We mentioned the 1878 eruption only briefly in *Volcano Town*, mainly because there are no known photographs of the activity but, again, we want here to make comparisons with 1937–43 using what sources we could find. Next, there was the need to cover in greater detail the history of how Rabaul town came to be established in German colonial times in such a volcanically vulnerable location despite knowledge of the 1878 eruption and given that the town would be seriously affected by the eruptions of 1937 and 1994.

Our final motivation was our own frustration at not having provided a suitable bibliography in *Volcano Town*. This oversight has been addressed here in our new book. Copies of much of the quoted material are available digitally in an RVO information management system, and we have made publicly available our own research papers through donation to archives in Canberra, as listed in Appendix 1. Acronyms and abbreviations are listed in Appendix 2 and a short glossary of some volcanological terms is provided in Appendix 3.

We have attempted to be consistent in our spelling of the names of geographic features in the north-eastern Gazelle Peninsula. The choice of name, however, is not so straightforward as some features have several names, ranging from origins in local dialects through to European languages, especially English and German. A good example is the naming of the active volcano known widely as ‘Vulcan’, also spelt ‘Vulkan’—and named after the Roman God of Fire—but also known and possibly in some cases misspelled as Vulcan Crater, Kaia, Rakaia, Raluan, Baluan, Keravia, Kalamanagunan and so forth. European colonists might ask local people for the name of a place, or peak, or river, but the final spelling they recorded would depend on the language and dialect being spoken (Linggood, Fellmann and Rickard 1940). For example, the settlement and river now known and spelt most commonly as Kerevat would also be spoken as Keravat. Another example is Rapindik, or Rapidik, both of which are used by the Tolai. Rapidik is the spelling used by speakers of the Raluana dialect, meaning ‘the secret

place' and associated with the meeting of secret societies such as the *tubuan*. Rapindik, however, is used most commonly as the spelling in official volcanological reports written in English. The common-use spelling of placenames in modern published maps of the area has been influential in our choices of spelling, rather than any consistent usage that may have existed in 1937–43. However, in the case of 'Dawapia Rocks'—for the steep-sided volcanic pinnacles in Simpson Harbour that are also known as the 'Beehives' or 'Beehive Rocks' or simply Dawapia or Davapia—we can be criticised for mixing the Tolai and English origins of the name.

This text is taken from *Return to Volcano Town: Reassessing the 1937–1943 Volcanic Eruptions at Rabaul*, by R. Wally Johnson and Neville A. Threlfall, published 2023 by ANU Press, The Australian National University, Canberra, Australia.