Exploring a Volcano in 16th-century Indonesia

Manuel Borges

Nestling deep within the vast Indonesian archipelago, the Moluccas were once responsible for producing some of the rarest and most precious spices on earth. These were harvested by the natives and distributed across the world through a long chain of merchants, until they reached Europe, where they would sell at a great profit in the markets. Alluded to by Marco Polo in his book, the exact location of the distant 'Spice Islands' nevertheless remained for a long time elusive to Europeans, if not almost in the realm of fantasy.

The Portuguese reached the islands in 1512 after the governor of India, Afonso de Albuquerque, launched an expedition to locate them from Malacca, having captured this Malay city the year before. This expedition nearly floundered halfway through, but Ternate was reached by a party of men led by Francisco Serrão, who then negotiated a treaty with its ruler, *Boleife* or Abu Lais.¹ Feeling that the position of his new-found allies on the archipelago was not solid enough to support him and hoping to attract more trade to his realm, Abu Lais later wrote to King Manuel requesting the construction of a fort.² Manuel on his part wished to secure the region against Spanish intrusion and construction was commenced in 1522 by António de Brito. However, its most noteworthy commander by far was António Galvão.

António Galvão was a man fascinated by the odd and the unusual.³ Appointed as commander of fort São João Baptista on Ternate, this seventh Portuguese captain of the Moluccas found the region on a war-footing upon taking office in October 1536, with every major ruler of the archipelago having since united in a revolt against the Portuguese. His sole ally was the unpopular Sultan Hairun of Ternate, while most Ternatean chiefs had rallied with their clans around a rival claimant. However, with the reinforcements he had brought over on two carracks, Galvão managed to force the islanders to a peace after a few months campaign. He then embarked on a reconstruction program of the war-torn islands, in which he had the full backing of Hairun, now undisputed ruler of Ternate by virtue of his rival having perished in action.⁴

Formerly in a state of perpetual conflict between rival kingdoms, clans, piratical raiders and cannibal tribes, islanders and Europeans, the region was now reduced to an unusual *pax*, marked by the monotonous harvesting of the precious clove that grew in the lowlands, between the sea and the mountainous interior, covered in an almost impenetrable mantle of green. The Portuguese *casados* had their properties to manage and Eurasian families to look after, but boredom is likely to have affected the garrison and the agents of the royal trading post, with little to do but fiscalizing what little there was to fiscalize, trade in what little there was to trade as the clove was a royal monopoly, getting involved in pastimes

¹ Andaya, *The World of Maluku*, pp. 115-16.

² Andaya, *The World of Maluku*, p. 116.

³ Castanheda, *História*, book IX, chapter IX.

⁴ These events were recorded in: João de Barros, *Ásia*, 1988, ed.; Fernão Lopes de Castanhedas *Historia do Descobrimento e Conquista da Índia pelos Portugueses*, 1933 ed.; Gaspar Correias *Lendas da Índia*, 1862 ed., and the anonymous *Treatise on the Moluccas*, 1970 ed.

or with women. Galvão meanwhile, must not have found much trouble keeping busy, as he was positively drawn to the country.

Presumably in the archives of his official residence or the royal trading post, Galvão found an unsigned manuscript filled with geographical and ethnographical information.⁵ As stated in its preamble, the author intended to fulfill the wishes of the king of Portugal who wanted accurate information about the land in which he kept a garrison. It is a geo-ethnographical report similar in tone and style to the *Suma Oriental* of Tomé Pires or the *Book of Duarte Barbosa*. In the spirit of the book, Galvão sought to learn everything he could about his surroundings. He inquired among the locals about their land, history and their traditions, although by his own admission their oral accounts proved quite frustrating for providing little besides vague and contradictory information, sung in verse.

'The island of Gumnape, now called Ternate, is much to be admired, for it casteth out fire', Galvão noted in *The Discoveries of the World*.⁶ The captain recorded a number of bizarre and fantastic things in his book, but among what he collected from the neighbouring sultan of Tidore he related the existence of hens that were 'blacke in their flesh', perhaps one of the earliest European references to the Javanese *Ayam Cemani* breed, as well as 'parats which prattle much, which they call noris', a reference to the *Lorius Garrulus* or chattering lory, prevalent in the northern Moluccas.⁷ There were 'very tasty bush crab, so strong in their claws that they break the iron of a shortspear' — another early reference, this time without doubt to the coconut crab.⁸ 'There be others also in the sea, little and hairie, but whosoever eateth of them dieth immediately,' which seems to correspond to the *Zosimus Aeneus* and *Atergatis Floridus*.⁹ He was so amazed by flying fish that for a while they became known as 'Antónios' in the region.¹⁰

There was, however, nothing quite as fascinating as the volcano of Ternate, *Gunung Gamalama*.¹¹ 'It releases fire through its highest point, such a wondrous thing that they know not to speak about anything other'.¹² While on Ternate, the captain had the chance to witness a few small eruptions that shook the island, released thick smoke, launched red-hot stones and

⁵ Now known as *A Treatise on the Moluccas*, its author, or authors, remain unidentified. Regarding this problem, see the analysis published by Hubert Jacobs as part of his 1970 edition of *A Treatise on the Moluccas* and J. H. F. Sollewijn Gelpke in *Heady Perfumes of Spice and Gold*.

⁶ Galvão, *The Discoveries of the World*, p. 119.

⁷ The royal trading agent Gabriel Rebelo wrote a few decades later that 'of these parrots, called nores, there are some which if taught speak well' in Rebelo, *Informação das Cousas de Maluco*, 1856, p. 166. Some of Galvão's naturalistic observations predate those of the eighteenth-century Swedish naturalist Carl Linnaeus, who is considered to have first described and named some of the species in the region, but they were overlooked or entirely dismissed as fantasy by even rather recent scholars and never seriously studied.

⁸ Galvão, *The Discoveries of the World*, p. 120. In his translation, Admiral Bethune omitted the fact that these crabs were land-bound and mistranslated "azagaya" as "pickaxe".

⁹ Galvão, *The Discoveries of the World*, pp. 120-121.

¹⁰ Rebelo, *Informação das Cousas de Maluco*, p. 164.

¹¹ The royal apothecary, naturalist and diplomat Tomé Pires never went to Ternate but he had already noted that 'This island has a peak in its middle which produces sulphur and burns in great quantity' ('*tem esta ilha no meio um pico que dá muito enxofre que arde em muita quantidade*') in Pires, *Suma Oriental*, 1978 ed., p. 340. 'It blows smoke through many parts, far from the main pit, when it throws out with impetus, which happens many times, at which it causes such an earthquake that it seems to those above that the hill (which they call Guno) is to fall' (*...arrebenta fumo por muitas partes, longe da principal cova, quando ella bota com ímpeto, o que acontece muitas vezes, nas quaes faz tamanho terremoto, que parece aos que estão em cima que cae o monte...*) according to Rebelo, *Informação das Cousas de Maluco*, 1856 ed, p. 181.

¹² Deita fogo pello mais alto, cousa tam espantosa q' se nam sabe la falar em outra', in Galvão, The Discoveries of the World, p. 119. Bethune omited this part.

ash on the fortress and projected impressive flames in the dark of night. Although the locals had already seen it many times, they would always stop to admire it. Galvão theorized that strong winds ignited the fire and that they raged all the more intensely whenever the airflow changed direction or storms raged.¹³

Some information circulated among the islanders regarding the volcano: it supposedly featured two craters, one of which released fire, while another held boiling water. Folk tales claimed that giants inhabited the crater, fed on wild beasts and kindled the volcanoes fire in order to warm themselves.¹⁴ It was still a very rugged and dangerous climb, and for that reason the Ternateans avoided its heights, while no Portuguese had yet reached such a place. Galvão wrote, 'There were some princes of the Moores and couragious Portugals which determined to goe neere to the firie place to see what it was, but they could never come neere it'.¹⁵ He therefore secretly decided he would be the first. This was by no means an easy undertaking. The rocky geological giant rises 1,700 metres above sea level and it was covered to about half its height by a thick mantle of tropical forest.¹⁶

Leaving the fortress in good order, Galvão departed with three Portuguese companions and a number of servants under the pretext of touring the island for a few days.¹⁷ He lodged a short distance away at a place where he enlisted the aid of a number of Ternatean farmers who would serve as guides. Some of Galvão's closest companions must have known of the expedition's true objective because the following morning many of the farmers realized where the captain intended to go and fled. Undeterred, Galvão proceeded with the men he had left.¹⁸

They trekked along rocky tracks that sometimes forced them to climb with ropes or proceed on all fours, or even to slash open an entirely new path.¹⁹ They investigated a freshwater spring that was so frigid that all found it impossible to submerge their hands in it. 'It appears that nature has provided there this cold, as in other waters immense heat', Galvão observed.²⁰ They reached a point where a very large boulder topped by a large tree blocked their advance. None had ever passed through there, the farmers claimed, but Galvão demanded that their chief find a way to overcome the obstacle because he had promised to show him the crater. Also, they had already advanced so far that they would not turn back.²¹ Men climbed in pairs, or three at a time, and hacked down the foliage with hatchets.²² The timber was then piled on the ground, allowing the remaining men to climb more easily.²³

They then proceeded through very thick bush, so tall that it blocked out the sun, and near the peak they found the ground rooted out by boars, with many trees torn down or broken due to falling stones launched by the volcano, which terrified them, but in due time they

¹³ Castanheda, *História*, book IX, chapter IX.

¹⁴ Ibidem.

¹⁵ Galvão, *The Discoveries of the World*, p. 119.

¹⁶ Barros, *Ásia*, decade III, book V, chapter V.

¹⁷ Castanheda, *História*, book IX, chapter IX.

¹⁸ Ibid.

¹⁹ Barros, Ásia, decade III, book V, chapter V.

²⁰ Galvão, *The Discoveries of the World*, p. 119. The existence of this unusually cold spring was later confirmed by Gabriel Rebelo, who wrote that 'almost at one edge there is an unusual spring of water so cold that you can't drink it but a little at a time' ('*está quasi no cabo hua singular fonte de tão fria aguoa, que se não pode beber senão a tragos*') in Rebelo, *Informação das Cousas de Maluco*, 1856, p. 182.

²¹ Castanheda, *História*, book IX, chapter IX.

²² Ibid.

²³ Ibid.

found their way across.²⁴ A partly burnt bamboo grove was their final obstacle before they reached an ash-covered clearing, at the centre of which was the crater.²⁵ The Portuguese and the Ternateans would not dare step beyond the bamboo grove, but once Galvão pressed on, he was followed by Miguel Anjo, a Ternatean Christian who egged on the rest to continue, which they did out of embarrassment.²⁶

They found the crater to be large and round, while smoke rose from certain spots.²⁷ The crater formed spiraling rocky pits with natural steps, which the Portuguese were able to climb down to inspect some rocks covered in 'green and yellow spots'.²⁸ They then sought to locate the hot water lagoon but the wind suddenly picked up and they raced out of the crater as fast as they could before the volcano ignited, as they feared it would, or were suffocated by the smoke.²⁹

The journey to the crater of Gamalama thus undertaken successfully, the party returned to the fortress where most people had already presumed them dead. The Ternateans in particular were so impressed that they looked at Galvão and his party 'as if to a strange thing ...,³⁰ Behind Galvão a path two leagues in length, leading directly to the crater, was left open.³¹

The captain was succeeded in office in October 1539 and returned to Portugal. While there, he penned a number of works on geography, history and ethnography, one of which was *The Discoveries of the World*, only published posthumously by a friend. Richard Hakluyt later edited it into English in 1601.³² João de Barros, official chronicler of the Portuguese Crown, knew Galvão and recorded his activities as part of his long chronicle *Ásia*, dedicated to the earliest activity of the Portuguese beyond the Cape of Good Hope, as also did Fernão Lopes de Castanheda, a servant of the University of Coimbra, who wrote the *History of the Discovery and Conquest of India by the Portuguese*.

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²⁴ Castanheda, *História*, 1933 ed., book IX, chapter IX. 'The elders state that they saw one as large as a good chest fall beyond the reef, which may not be, though I saw the largest ones fall from above further away like a cannonball...' ('...contão os velhos, que uirão cahir hua por dalem do recife tamanha á vista como hu bom caxão, o que não pode ser, ainda que vi em cima a cairem as maiores mais longe, como a roqua da bombarda...') in Rebelo, Informação das Cousas de Maluco, 1856, p. 182.

²⁵ Ibid.

²⁶ Ibid.

²⁷ Ibid.

 ²⁸ Barros, *Ásia*, decade III, book V, chapter V. Castanheda, *História*, 1933 ed., book IX, chapter IX.
²⁹ Ibid.

³⁰ '...Olhavam para ele e para os que foram com ele como para coisa estranha' in ibid.

³¹ Rebelo, *Informação das Cousas de Maluco*, p. 182. About a century later, the Dutch Nikolaas de Graaf would report that climbing the volcano had become a recurrent activity on Ternate, in Lach, Donald and Kley, Edwin, *Asia in the Making of Europe*, III, book 3, 2018, p. 1415.

³² Marcocci, Giuseppe: *The Globe on Paper: Writing Histories of The World in Renaissance Europe and the Americas*, Oxford University Press, p. 78.

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