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## Overriding Semiosis: The Catastrophe of the Ambrym Eruption of 1913

Moreau Yoann <sup>a</sup> and Aurora Vincent<sup>b</sup>

<sup>a</sup>Mines ParisTech, Crisis and Risk Research Center, Sophia Antipolis, France; <sup>b</sup>Department of French, Columbia University, New York, NY, USA

### ABSTRACT

The 1913 volcanic eruption on the island of Ambrym (Vanuatu) struck both groups composing the island's population at the time, the Islanders and the British Presbyterians who had come to 'civilise' them. Through the lens of Peirce's semiosis, particularly his notion of the 'indexical sign', this article examines the chronological development of the two groups' divergent, and also at times convergent interpretations of the eruption as a sign. This semiotic analysis is then extended into the island's socio-historical context, from the Presbyterians' first attempts at missions to the catastrophic upheaval that decimated the island's population until the 1940s, to study how the two groups interpreted themselves, each other, Western Christianity and the traditional Ambrymese belief and authority system.

### KEYWORDS

Catastrophe; Ambrym; semiosis; volcanic eruption; colonialism

In December 1913, a cataclysmic volcanic eruption struck the island of Ambrym in the Franco-British condominium territory of the New Hebrides (Vanuatu). At that time the population of Ambrym was composed of two distinct groups forming a temporary, unstable society: the Indigenous Ambrymese and the European colonisers. Among these colonisers were the British Presbyterian missionaries who, after repeated, failed efforts at implantation and proselytisation on Ambrym, had finally installed a successful mission in 1892, headed by the tenacious Doctor-Reverend Robert Lamb. The missionaries, who had nicknamed the island of Ambrym 'the Mother of Obscurity', saw their role as bringing the 'light' of civilisation to the 'dusty natives' (Lamb 1905, 37). To do so, they would bring the legal framework of the British Empire to settle disputes; they would establish a hospital to bring medical care; they would operate a school to bring education; and finally, they would bring Christianity to save the 'heathen' from damnation.

In 1899, the 'capable surgeon and devoted missionary' Doctor-Reverend John T. Bowie replaced Doctor-Reverend Lamb, who had caught tuberculosis in 1897 (Frater 1922, 11). Bowie's work built on Lamb's success: local conflict diminished, the hospital welcomed more and more patients and had to be refurbished with a new operating theatre, the school was spreading literacy among the Ambrymese and conversions were proceeding apace (Cawsey 2017, 231). Yet for the more traditional-minded of the Ambrymese, the

success of the British, who were quickly destroying their beliefs and values, seemed a curse. The eruption of 1913 took place in this double cultural context, and the two populations in question interpreted the eruption in very different ways.

On the afternoon of 6 December 1913, the twin ‘eyes’ of the Ambrymese volcano, the volcanic cones of Benbow and Marum, began spewing plumes of sulphurous smoke, and lava flowed down their flanks into the Plain of Ashes, a vast, ancient caldera 12 km in diameter. Around 5pm, fires broke out in the surrounding bush and spread across the mountains. At 2am, in the orange-glowing night, the lava flows, one 800 m in width, reached the ocean, making it boil over dozens of metres.

Faced with this eruption, we find, on one hand, a synchronic difference of interpretation between the Ambrymese and the Presbyterian missionaries, and on the other, a diachronic development of interpretation within each group. How did the two populations experience the eruption? Were there divergences but also convergences in the way they lived and perceived the catastrophe?

To examine this question, we shall first gather the accounts left behind of the catastrophe by the two communities: first-hand accounts left by the colonisers on one hand, and on the other, the oral tradition left by the native Ambrymese. Then, taking the eruption as an event which gave rise to culturally determined interpretations, we shall apply Charles Sanders Peirce’s definitions and categories of signs to analyse the two groups’ interpretations, both synchronically and diachronically, and to postulate the catastrophe as a degree zero of the sign, an index overriding cultural differences.

## The British Accounts

British reactions and interpretations include the first-hand accounts of Dr Bowie himself, of Reverend Maurice Frater, a Presbyterian missionary based on the nearby island of Paama who sailed to Ambrym once the eruption had begun, and of the writer Robert James Fletcher, who was working on the island as land-surveyor, charged with marking out legal property boundaries for the Franco-British Condominium in order to settle the property lawsuits that had been plaguing Ambrymese and colonisers alike.

### *6 December – First Reaction: Contemplation of the Volcanic Eruption*

On the first day of the volcanic eruption, 6 December, the British, unlike the Ambrymese Islanders, did not immediately deem the eruption a mortal threat. Fletcher, Frater and Bowie were all initially blind to the peril, and interpreted it as an awesome spectacle, a wonder of nature to behold. In an act of British phlegm, Fletcher grabbed his folding chair and his scotch and went out to contemplate the lava flow. As he wrote to his old friend and colleague, Bohun Lynch, on the morning of 7 December:

Yesterday, I spent the evening sitting on a folding chair on the shore, to contemplate the most beautiful spectacle a man could wish to witness. The moonlight was splendid. The waves were breaking on the reef with a noise like thunder and forming a broad, white and radiant strip. In the bush, the fire roared and bellowed, the great trees came crashing down with a roar. The ravines bubbled like giant serpents of flame that crawled towards the sea. And I was there to smoke a good pipe and to drink a glass of whisky and water from time to time, absolutely incapable of imagining that I was running the least danger. (Fletcher 1923, 93–94)

Frater also mentions the act of contemplating the eruption and first described it from the island of Paama, just 26 km from Ambrym:

In December 1913, the age-long sleep of these extinct craters was broken, and the imprisoned giants awoke to life [...] the natives, in their picturesque mode of speech, saying that Ambrim danced. Then, from the newly-formed vents, was seen to rise, dark as the blackest London fog, a dense cloud which shot up like a pillar and spread out in all directions like a gigantic mushroom. In a short time, ash and cinders began to fall, making a noise like hailstones and smothering Ambrim and the adjacent islands in a thick layer of volcanic ash. [...] Towards evening the atmosphere cleared, and the approach of darkness removed all doubts, revealing one of the most awful and one of the most magnificent sights that it is possible for the eye of man to behold. Over an area of ten miles the earth seemed to have opened up, and out of this huge fissure tongues of living flame were shooting up into the sky. (Frater 1922, 12)

Dr Bowie also speaks of the beauty of the volcanic spectacle:

The sight was magnificent as well as awe inspiring. The lava, which was quite incandescent, came quickly on, burning up great forest trees, tossing them all aglow in the air, emitting sparks like a thousand catherine-whells. Soon after 3 a.m. the lava plunged with a savage hiss and a mighty roar into the sea. The sight was then superb, and never to be forgotten. (Marshall 1914, 389)

On 6 December, the Europeans, overwhelmed by the eruption's beauty, observed it as a grandiose spectacle, without feeling themselves in the least threatened.

During the night the doctor [Bowie] and staff watched the fire and the erupting volcanoes, never dreaming that their lives were in danger. The worst that could happen, the doctor imagined, would be a flow of lava down the valley behind the mission station; but, as the place was encircled with a high ridge of hills, it seemed impossible for such an event to occur. (Frater 1917, 16)

The Ambrymese, on the other hand, as we shall see later, were not subject to this initial blindness, which delayed by one whole day the colonisers' reaction time.

### **7 December – Second Reaction: Feeling of Imminent Catastrophe**

On 7 December, as the eruption progressed, Fletcher, Frater and Bowie all began to perceive the eruption as an immediate threat to their lives, and accordingly formed new interpretations. For Fletcher, it was panic inspired by the imminence of death:

This letter, I am beginning, at least, in bizarre circumstances. Pay good attention. I expect every hour (even every minute or from one second to another) to be engulfed by a flow of lava thrown up by a volcano, with pestilence and death. (Fletcher 1923, 94)

For his part, Bowie gave a rather clinical description of seemingly unbelievable phenomena, yet accompanied his descriptions with scientific explanations.

An explosive eruption blew the hospital and other buildings into the air. The force of the eruption was terrific. First a great sheet of what appeared to be electric flame flashed from the ground, and immediately following was a mighty roar and crash like myriad thunder-claps one piled on another. The heat, too, was intense. We could see for an instant only the corrugated iron spreading out like scintillating glass, and then it was gone. Explosion then followed explosion almost continuously for four days at least. Sometimes there would be a short interval, but the intervals did not last long. (Marshall 1914, 390)

According to Bowie, the island had become unrecognisable, whole lands had disappeared, a peninsula had formed, forests and whole villages had burned, ash and dead animals were strewn everywhere. Near Dip Point, six new craters surfaced, and torrents of water and lava flowed there for days, forming a hill more than 150 m high (Marshall 1914, 391).

Tellingly, Reverend Maurice Frater reinterpreted the sight of the eruption aesthetically, as religion modulated through art:

The journey down the Ambrym coast was fearsome in the extreme. A heavy pall of livid smoke lay over the island, ash and cinders were falling all around, and the sea was covered with floating debris and pumice-stone. Several volcanoes were belching out near the sites of villages. At intervals, tremendous explosions occurred, when all nature seemed to reel. The scene resembled pictures of the Judgment Day which the old painters were accustomed to paint—heaven and earth in ashes is burning. (Frater 1922, 15–16)

### **7 December – Third Reaction: General Evacuation**

For Bowie, who was witnessing the destruction of over ten years of hard work as the new crater engulfed his hospital, the newly perceived danger posed by the eruption gave rise to the interpretation ‘need for British calm and organisation’. His bravery was described by a British eyewitness, Mary Wright, in a letter to her sister:

Dr. Bowie and the other missionaries were out in launches rescuing the people, their own lives being in peril all the time. They behaved like heroes ... About 9 o'clock the rest of the refugees arrived at the station. The lava flow was passing close to his village and most of the people had fled, except the very old and those with young children. We set about rescuing them ... Hundreds of heathen natives came to the station. They seemed to feel safe near Dr. Bowie. Wherever he moved they followed in a procession ... Dawn found us still on the beach. About 5 o'clock, Mr. Stephens arrived from Craig's Cove and said a lava flow would probably reach there by daybreak ... We packed a few things together and waited. There was no panic. The doctor told me to take the bedridden in the hospital to Malekula. Mrs. Weir and Mrs. Fleming, who were in the hospital, were in a very delicate state but behaved like bricks and never murmured. There were several natives who were very ill. We got safely into a launch and set off ...

Not long after we left, Mrs. Bowie and Mrs. Bailey had to fly for their lives ... They were joined by a number of natives from the station. Mrs. Bowie told the natives to look after themselves. They would not leave her ... Eventually they were rescued by boats. Dr. and Mrs. Bowie lost everything they possessed. All the natives on the station were rescued. Dr. and Mrs. Bowie say they do not mind about their own losses, being thankful that so many lives were saved. (Cawsey 2017, 231)

### **Consequences: The Departure of Presbyterians and Arrival of Adventists**

The eruption would signal Bowie's definitive departure from the archipelago to Dunedin (New Zealand) where he would superintend another hospital. The British Presbyterians left the island, and would never again play an important role in Ambrymese society. In its report on the Ambrym eruption, the Presbyterian Mission Synod attributed the destruction of its mission to divine judgement, a judgement that in the light of their failure to return to Ambrym, they seem to have taken as final:

The Synod stands in awe before the Power that at a stroke has removed an entire Mission and turned the scene of the strenuous life and labours, first of Dr. Lamb and then of Dr. Bowie,

into a haven for ships; but nevertheless believes that Power is also Wisdom and Love. (Garrett 1992, 97)

For a few years, Ambrym was once again inhabited only by its Indigenous population. But the Presbyterian Mission would soon be replaced by a mission of Seventh Day Adventists, who had a similarly dim view of Ambrymese culture and the same desire to replace the Islanders' traditions with 'civilised' Christianity. After first contact between the Ambrymese and the Adventists not long after the eruption, in March 1915, Adventists from Australia came to stay in Ambrym in 1922, as they assert, at the invitation of the Ambrymese themselves.

About June or July 1922 [Donald Nicholson, an Adventist missionary] made another trip to Ambrym and on arrival at Baiap, he said another surprise awaited him. As the vessel came into the anchorage, he noticed about a hundred people waiting on a point of land that jutted out into the sea. These were men and women who had formerly attended the Presbyterian Church. This group had decided that they wanted the Seventh-day Adventist Church to be established in their village. They were already resting on Saturday and observing it as best they knew how and were not working in their gardens on Sundays. (Parkinson 2005, 33–34)

Nicholson's account bears all the hallmarks of missionary proselytism: the Islander population hungering for salvation, already respecting the Adventist code of resting on Saturdays, actively inviting the Adventists to come to their rescue, and the fruition of the strategy in the later 'spiritual harvest'. In this triumphant missionary discourse, the Presbyterians' loss was the Adventists' gain, and also, in their opinion, a gain for the Ambrymese, who were raised from their abject condition into communion with God.

### **Ambrymese Accounts**

We have only second-hand accounts of the Ambrymese population's interpretations of the 1913 eruption. These accounts are of two types: first, documents written at the time by colonisers, which refer to Ambrymese behaviour. These accounts must be treated with caution, for we cannot know how influenced they are by their writers' subjectivity, all the more so because the cultural differences are significant, and the political, moral and economic stakes tend to warp facts in order to better support proselytisation, unfair trade practices and, more generally, the colonisers' interests.

The second type of source at our disposal is that furnished by the oral accounts of Islander descendants. These accounts must also be treated with caution, because we cannot judge to what extent they have been re-scripted or skewed over the three generations that separate modern-day Ambrymese from those who experienced the catastrophe. In order to provide a chronological account of events, the contemporary colonisers' and later Islanders versions will be treated together.

### **6 December – First Reaction: Immediate Fear**

During the volcanic eruption, Western sources all reference the terror that overcame the Ambrymese. 'At the same instant, terrified natives from the inland villages arrived with the news that the earth had opened some distance up the valley and the molten lava had formed a lake of fire' (Frater 1917, 499). Fletcher, himself afraid, speaks of the fear of the Ambrym Islanders:

There was no safe place. My boys and I could do more from tiredness. We ran into groups of natives from the bush fleeing in all directions, naked and mad with terror. The seashore was covered with a foot of ash, mixed with dead and boiled fish, with tortoises, birds with burned plumage, and others rejoining paths of flight. (Fletcher 1923, 96)

Journalists writing for *The Sydney Morning Herald* gave this account:

On the evening of 6 December, the volcano of Ambrym broke into violent eruption; smoke and flame shot from the crater and great streams of lava poured down the sides of the mountains. The natives fled panic-stricken to the coast and entering their canoes sought safety in the adjoining islands ... (*The Sydney Morning Herald*, 20 December 1913; quoted in Cawsey 2017, 229)

These same journalists indicated that the Islanders' fear was so great that when they had fled, they had abandoned their weaker relatives to their fate:

The steamer France [...] happened to be in the vicinity and, for five days, the vessel was busily engaged rescuing the natives and transferring them to Malekula. [...] Nearly 600 hundred natives, chiefly old men, women and children were rescued by the steamer; most of the young able-bodied having escaped in their canoes. Too anxious to save their own skins, they rushed helter-skelter to the shore and tumbled into the canoes, caring nought for those left behind. (Cawsey 2017, 230)

The sources are unequivocal concerning the Islanders' reactions: they were panic-stricken, they fled in all directions, they stampeded towards the boats in their desire to leave the island, just as the colonisers did. But one crucial difference is indicated by Robert Fletcher, in his letter dated 7 December. On 6 December, as he was enjoying the spectacle while sipping whiskey, Fletcher wrote:

My boys were in a blue funk and but for the sight of a Winchester would have escaped by swimming. I wanted them to stay because the natives in the village are inclined to be fractious and attribute the eruption to observations which I had made of the summit two days before. (Fletcher 1923, 94)

Already, on the evening of 6 December, the Islanders of Ambrym had understood there was danger, had produced an explanation of that danger (Fletcher's breaking of a taboo in violating the summit of the volcano), and had deemed it urgent to seek refuge on another island. Fletcher, however, suspecting no danger, found their behaviour irrational and unpredictable.

### **1913–1940 – Consequence: The 'Great Terror'**

The eruption marked the beginning of a dark period into which Ambrymese society was plunged between 1913 and 1940, when the islanders, at each other's throats, apparently blamed neither Christianity nor Western influence, but rather their own specific cultural traditions (*kastom*) for their predicament. After conducting fieldwork in the north of Ambrym in 1995, anthropologist Knut Rio wrote:

In a historical survey of deserted villages that I conducted in the area, this situation of peace and tranquillity was in people's discourse strongly opposed to the historical period that I am tempted to call "the Great Terror". Along with many other Melanesian islands, Ambrym was heavily depopulated between 1913 and 1940. In the area concerned in my survey, a population of about 3,000 people, spread out over 30 villages, was seriously decimated

by these developments, and in 1940 only five villages remained, with a population of only 300 to 400 people. From one perspective, we can account for this radical disruption by referring to the new diseases, rifles and alcohol that were introduced to the island by missionaries, traders and colonial personnel. But according to North Ambrym people themselves, the many deaths were considered unanimously to be caused by *kastom*. (Rio 2002, 130–131).

Although the Ambrymese unanimously believed that *kastom* was at fault in their problems, this ‘Great Terror’ may be seen as an unintended consequence of European colonialism in general, and of Protestant proselytisation in particular. Traditional Ambrymese society had been ‘graded’ (Eriksen 2012, 105), relying on the consensus of multiple elders forming a male-dominated elite of Big Men (*vanten hanglam*) who climbed their hierarchy by successive initiatory rituals involving the slaughtering of pigs and the cooking on taboo fires (Tonkinson 1982, 310–311; Bolton 1999, 2–3; Forsyth 2009, 64). Sorcery remained the sole prerogative of this elite, and the higher the initiates rose in the hierarchy, the greater their powers of sorcery were reckoned to be.

The European assault on this traditional system was multifaceted. First, as Tonkinson (1981, 79) writes, from their arrival onwards, the Presbyterians relentlessly characterised the Islanders’ sorcery as evil. Where once the *vanten hanglam*’s use of magic had been considered beneficial, the Presbyterians changed the local perception of sorcery into a form of malevolence (Tonkinson 1981, 86; Rio 2002, 133). Eriksen (2012, 108–109) shows that this weakening of the traditional system was furthered by the effects of Presbyterian egalitarianism. As the Presbyterians stressed personal relationships with God, rather than reliance on a priestly elite, and valorised the active role of women in their religion, they implicitly eroded the exclusively male initiates’ prestige and authority. At the same time, with the new geographic mobility afforded by colonial economy, Ambrymese men often left Ambrym to work on plantations on other islands where sorcery was not restricted to an elite (Tonkinson 1981, 79). Upon these men’s return to Ambrym, they would claim the use of sorcery for themselves, effectively democratising sorcery, making it available to individuals outside the elite who thereby lost their prerogative. Soon everyone, men and women alike, was able to poison, bewitch and visit catastrophe on everyone else (Rio 2002, 132).

Similarly, Anglo-French colonisation had weakened the *vanten hanglam* through the imposition of the concept of chief. The colonisers, in their mission to bring their legal framework to the island, had overturned the traditional political structure of multiple elders holding authority gained by ritual rather than by inheritance, and had replaced that more graded and diffuse system with the designation of singular chiefs, ‘generally mission-nominees and “policemen” who acted as the executive arm’ (Forsyth 2009, 72). The very position of chief mentioned in the European establishment of local ‘courts’ and ‘police’ was a Western creation imposed because the colonial forces preferred to have one person in charge, answerable to them, who would be in a position to enforce their laws:

In south-east Ambrym, as in many other parts of the country, the graded society collapsed rapidly following early contact with Europeans ... a few of the grade names or titles have been handed down as personal names, leading some men to assume that their forebears who had achieved a high rank were therefore chiefs. On the basis of this belief some men have pressed claims to be chiefs, thus confusing the achieved and non-inheritable ranked



status with that of ascribed, inherited chiefly status. Such confusion is widespread. (Tonkinson 1982, 311)

The democratisation of sorcery and the drastic shift effected in the Ambrymese political structure through the concept of chief went hand-in-hand with a global process of cross-cultural change. With the colonisers' arrival, there began a vast and complex process of acculturation, which involved the syncretic coevolution of the Islanders' and colonisers' modes of existence on the level of the individual, and the violent reorientation of Ambrymese cultural structures in the face of Western civilisation, which itself was barely changed, on the broader sociological level. Certain Islanders adopted the perspectives, values and customs brought by the foreigners, and, reciprocally, certain foreigners reconsidered, and in some cases recast, their modes of existence in line with the 'savages' (Rio and Eriksen 2013). Though individuals 'converted' on both sides, on the larger, sociological level, the colonisers' avowed proselytism and the unequal power relationship between the two populations rendered this double influence asymmetric: Ambrymese society emerged much more altered from this contact than did Western civilisation, of which Lamb, Fletcher, Frater and the others are just a few of the representatives. In this long history of cultural domination and exchange, it is logical that the Ambrymese would have felt the need to re-appropriate the marks of their culture and to redefine their identity and their history at the moment of Vanuatu's independence, in 1980. In many ways, the concept of *kastom* conveys the complex longing for what is now held as belonging to their 'native identity' or 'specific syncretism' (Lindstrom 2008).

It was against this background of long, dramatic cultural upheaval undergone by his society that Harold Tamar, modern inhabitant of Ambrym and source of Ambrymese oral history, gave his account of what happened in December 1913 in 2008.<sup>1</sup>

### **1892–1913 – Historical Causes: Colonial Irruption and Family Disputes**

Following a series of attempts to set up a Presbyterian mission in Ambrym, in 1862, 1883, and 1885, Doctor-Reverend Robert Lamb and his wife arrived in 1892 to take up residence at Dip Point. In Ambrym accounts, it was an internal conflict that had brought about the colonisers' arrival. Disputes among families had been undermining social relations for several years, and the Lambs were welcomed in this context, in the hope that they would be able to act as intermediaries. As Harold Tamar tells it:

Before, in the times when all the elders were present, there was conflict, there were fights among the families. A man named Pacan was the source of this dispute. Out of fear, he ended up fleeing to Queensland and stayed there for a while. When he returned, the Elders took him off the boat that was bringing him back with all his things and they beat him. Pacan died. This war, this fight, lasted too long. The Elders say about ten years. So they invited the missionaries in to come establish peace. (Moreau 2017, 236)

From the point of view of local history, the missionaries had been invited to Ambrym by the Ambrymese themselves. The installation of Lamb's mission was the result of strife in the community, and was the object of a quickly concluded transaction. Robert Lamb's journal corroborates this version. Though he only briefly mentions his first contact with the Ambrymese, he proudly recounts his negotiation with the 'chief', Mal-Pang-Kumu. This chief demanded payment in pigs and tobacco, but Lamb refused to pay in this

traditional currency because ‘pigs belonged to a culture that used pigs for pagan rites and sacrifices’ (Lamb, quoted in Miller 1989, 106). He ended up paying the Chief in coin for the plot at Dip Point.

Despite many losses and personal tragedies (famines, fires and the death of their children), Robert Lamb and his wife were the first to establish a lasting mission on Ambrym. Tuberculosis would force them to return to New Zealand in 1896, but Doctor Bowie, who followed them, took over a mission that was already working wonderfully, from the point of view of health care, education and conversion rates. However, despite the care offered by the Presbyterians, in their mission to bring the light of Christianity to Ambrym, they also relentlessly denigrated traditional religious practices as evil and damnable, particularly their custom of sorcery and pig-slaughtering (Forsyth 2009, 70).

While the Presbyterians had indeed won over many converts among the Ambrymese, the overturning of societal and religious traditions did not sit easily with some of the elders. Harold Tamar provides a version of events that meets with consensus today among his fellow citizens:

The pupils [of the Presbyterians] left for anywhere and broke the laws of our customs. The Elders said: Christianity has arrived and we are going to lose our customs! They said to themselves that they would all lose their customs. (Moreau 2017, 238)

Trees were felled and sacred fires were transgressed. With anger, the elders watched the community’s rules erode as the Presbyterian school filled with ever more converts. At the beginning of 1913, the history of Christian conversion on Ambrym reached its high point and the process of cultural transformation accelerated.

### **November 1913 – Direct Cause: The Eruption as Magical Weapon**

In November 1913, the Ambrym elders, whom Harold Tamar calls the Big Men of the bush, were in agreement: Christian conversion and sociocultural change were perceived as too great a threat, and the enormous baptismal meal organised by the Presbyterians for 28 November finally pushed the elders and other members of the population to react. According to Harold Tamar,

This happened on 28th November 1913. On this day, the missionaries made an enormous meal. All the main chiefs were there, the Mél, the Naim Meleun, those who had abandoned the sacred fire and become Christians. [...] Doctor Bowie baptised them, he directed the sabbath, he made them become Christians. He invited everyone, a big line with everyone, all the women, the children, the big men. Every one together. When the Big Men of the bush heard the news, they said: ‘no, this school has arrived and is affecting our customs, it will make us lose our customs’. (Moreau 2017, 239)

In his account, Harold Tamar describes the Ambrymese Islanders as divided into two groups: on one side the ‘chiefs’ and the Christian converts, who were open to the Presbyterians’ invitation, and on the other side the Big Men of the bush, who would not participate in the baptismal meal and who saw the Presbyterians as a threat. It was these recalcitrant Big Men of the bush, and not the compliant ‘chiefs’ set up by the colonisers, who in order to deal with the destruction of their traditions chose the strongest strategy at their disposal: calling upon the volcano to erupt. Only the *Lin Mal*, the sorcerer possessing a hereditary power of speaking to the volcano, could summon an eruption. Seeking by all

means necessary to eject the intruders from their island, the Big Men of the bush appealed to the Lin Mal, who responded:

Ok. In the next two weeks I will visit them. [Harold Temar emphasises, while providing the incorrect date of 13 December, instead of 6 December:] within the very two weeks of the visit that Lin Mal had announced, on the 13th [*sic*] of December 1913, the volcano came. Fire destroyed everything. (Moreau 2017, 239)

The statement that Big Men ‘called upon the volcano to erupt’ is a classic explanation of catastrophe in Vanuatu (Douset 2016), as is violation of taboo sites, such as, in the eyes of the Ambrymese working for him, Fletcher’s braving of the mountain summit.

According to Harold Temar’s account, the elders had recourse to ‘sacred fire’ and magic to end their profound cultural crisis. In other words, if we believe the story told in Ambrym today, what happened in the night of 6–7 December 1913 was not a volcanic eruption, a natural event, but an act of sorcery commissioned by the elders to end a catastrophe of another nature, the destruction of Ambrymese culture under colonisation and Christianisation. For Faith Bandler, daughter of the Ambrymese Islander Wacvie Mus-singkon, who had left his island in 1883 to work on a plantation in Queensland, the threat came not from nature, but from white people:

Storms, downpours, earthquakes and volcanic eruptions followed a cycle to which the people had adapted; the foreigners were clever and tricky. They were hard, rude and brutal; no one knew just when they would be furious, or when they would destroy what was sacred and eternal. (Bandler 1979, 18)

The unexpected and unacceptable was not felt as coming from nature, but rather from humans, from the foreigners with their habit of violating taboo, traditional moral values, sacred places, stones and trees. From the Ambrym elders’ point of view, what happened on 6 December was a magical intervention made with socio-political aims rather than a geological phenomenon. For them, the catastrophe was not natural, but cultural.

## Semiotic Analysis

### *The Eruption as Sign*

For all present on Ambrym, the volcanic eruption of 1913 acted as a sign, which is defined by semiotician Charles Sanders Peirce as ‘something which stands to somebody for something in some respect or capacity’ (Peirce 1932, 135). Peirce divided signs into three categories, each having a more necessary relationship to its signified than the last: the symbolic sign, the iconic sign and the indexical sign.

The symbolic sign has neither a primary nor a secondary physical connection to its signified, but rather is culturally learned, as a vowel of the alphabet stands for a sound, a word stands for a concept, or the colour of a traffic light is learned to mean ‘stop’ or ‘go’.

The iconic sign has a physical resemblance or connection to whatever it represents; it shares a likeness with what it stands for. For example, a swath of material, a paint chip sample and even a photograph all bear a connection or necessary physical resemblance to their signifieds.

The indexical sign, on the other hand, is a sign perceived as providing evidence; it is understood to be in a direct relationship with what it represents. ‘Smoke’ is indexical when it is interpreted as furnishing proof of fire; ‘bloody knife’ is indexical when it is

interpreted as proving an attack; a scream in the street is indexical if it is interpreted as meaning that something may be happening, even if we do not know what that something is.

In the schema of this triadic semiology, both the British and the Ambrymese populations saw the lava, both smelled the sulphur and heard the roar and immediately perceived them as *indexical signs*: everybody viscerally felt that there was an eruption. As this indexical sign passed into further interpretation, however, it bifurcated, acting as a different category of sign for each population. The Ambrymese, with their long history of living with a volcano, quickly interpreted the eruption as a further indexical sign giving evidence of imminent catastrophe, and thus immediately necessitating flight. The British, on the other hand, quickly interpreted the eruption as a symbolic sign – referring back to a system of aesthetics (Romantic awe before the unchained force of nature), to things read or seen (paintings of the Judgement Day), or to a code of stalwart heroism (Doctor Bowie maintaining a ‘stiff upper lip’ in cataclysm) – an interpretation that delayed their flight by a day.

### **Polyvalent Signs: Synchronic and Diachronic Interpretations**

What therefore happened on the night of 6 December 1913? For all parties, there was a volcanic eruption but, for the colonisers, its explanation was geological, whereas for the Ambrymese, it was the consequence of a profound cultural disorder stemming from the colonial missions on Ambrym. As one of us has written elsewhere, there was asymmetry in the perception of catastrophe, which is that which

overrides the plans of individuals and societies, that which does not enter into a strategic framework: for the Ambrymese, the eruption was wanted; for the settlers it was endured. For the settlers, colonization was considered as civilizing and saving, voluntary and positive; for the Ambrymese it was endured and unwanted, experienced as destructive and it created a fear of collapse. (Moreau 2014, 276)

The catastrophe for the Ambrymese Big Men of the bush was not the eruption of the volcano, but the irruption of Western political systems, religions and values into their culture. Where the Presbyterians interpreted their mission as ‘light-bringing civilization’, the Big Men of the bush interpreted that same mission as the possible end of their culture. For the Big Men, the solution to the Presbyterian attack on *kastom* was therefore to bring more *kastom*, to marshal the forces that *kastom* put at their disposal, and we can only imagine how strengthened they felt in their beliefs when the volcano they were sure they had awakened erupted precisely beneath the Presbyterian settlement, exploding it, swallowing it whole and sending its ruins to the bottom of a newly formed inlet.

We have discussed the semiologist Charles Sanders Peirce’s tripartite division of signs (symbolic, iconic, indexical), but the semiological innovation for which he is most famous today is rather his redefinition of the sign. Peirce took the two-part definition of the sign inherited from Aristotle and St. Augustine (sign on one side, meaning on the other) and added another facet, a further sign to which the first sign gives rise, or its interpretation. For example, the indexical sign ‘lava’ produced the meaning ‘eruption’ for Ambrymese and missionaries alike, but the further signs to which ‘eruption’ gave rise through interpretation were quite different: for the Ambrymese, the interpretation of the eruption

immediately gave rise to the meaning ‘flee’, while for the missionaries, it first gave rise to the meaning ‘behold’.

In fact, in the accounts we have studied in this paper, we find a series of large polyvalent signs reinterpreted symbolically, both synchronically and diachronically: 1 – the Ambrymese, 2 – the Presbyterians, 3 – the Big Men of the bush, 4 – the eruption, 5 – the departure of the Presbyterians, and 6 – tradition.

Amongst the concepts acting as symbolic signs for the Ambrymese we find:

- (1) In 1892, before the arrival of Reverend Lamb, the *Ambrymese* considered themselves as a population suffering from social conflict, needing to involve a third party to settle their disputes.
- (2) In autumn of 1892, Doctor-Reverend Lamb and the *Presbyterian mission* were therefore interpreted initially as intermediaries who could bring the help the Ambrymese needed. Later, notably after the baptismal meal given by Doctor-Reverend Bowie in November 1913 (and probably before), for at least the part of the Ambrymese population represented by the Big Men (though surely not for the Ambrymese converts) the Presbyterians were reinterpreted as an intrusive irruption into their society, an existential threat to their way of life. For the Big Men who refused Christianity, the true catastrophe was clearly British acculturation.
- (3) From 1913 on, *the Big Men* considered themselves as the keepers of aboriginal culture and of traditional authority. We do not know how the Big Men were perceived by the part of the Ambrymese population that was willing to convert, but the fact that the Big Men did not attend the Presbyterian party given in November 1913 hints at tension between the two groups, and may also explain the period of fratricidal war of magic and poison that followed the departure of Bowie’s mission.
- (4) On 6–7 December 1913, the *eruption*, for the Big Men of the bush as described by Harold Tamar, was a desired occurrence, a traditional, magical solution to the threat posed by the Protestants. For certain others, it was the result of the violation of sacred sites. For the entire Ambrymese population, to judge from their reaction as described by Western journalists, the eruption was a terrifying danger to be fled.
- (5) After December 1913, *the departure of the Presbyterians*, for the Big Men of the bush and for modern Ambrymese represented by Harold Tamar, meant a rebuilding of their identity and customs. For the converts (to judge from the welcome they would give the Adventists a few years later in 1922), the departure of the Presbyterians was probably viewed as a tragedy.
- (6) *Tradition*, for the Big Men of the bush in 1913, was the sacred way synonymous with Ambrymese identity. Later, at the time of Knut Rio’s fieldwork in 1995, the idiosyncratic notion of *kastom*, while still flagging Ambrymese identity for the Ambrymese population, was also unanimously blamed as the source of the violence and decimation they suffered during what Rio termed the Great Terror, between 1910 and 1940.

Amongst the concepts acting as symbolic signs for the Missionaries:

- (1) For the British who established the Presbyterian mission in 1892, *the Ambrymese* were indeed suffering from social conflict, but even more fundamentally, they were

suffering from their need of Christianity and civilisation. For the British, the Ambrymese were a ‘dusty people’, a lost flock in desperate need of guidance.

- (2) Thus, from 1892 to 1913, the *Presbyterian missionaries* considered themselves as the bearers of civilisation: hygiene, medical care, education and, most importantly, salvation. Later, after 1915, and even more so after 1922, the Adventists interpreted the Presbyterians as forerunners who had laid the initial groundwork, and whose work now had to be continued and corrected.
- (3) For the British in 1913, the Ambrymese *Big Men of the bush* were seen as backward people refusing civilisation and salvation, upholding ‘obscurity’.
- (4) On 6 December 1913, the Presbyterians interpreted the *eruption* as a geological catastrophe inspiring great awe; awe which, on 7 December, gave way to a new interpretation as mortal danger. After 7 December, the Presbyterians again reinterpreted the eruption in hindsight, now as a tragedy which, at least in the Synod’s report, may also have indicated the will of God.
- (5) For the Presbyterians after 7 December 1913, their *departure* was an unfortunate necessity: they had spent a great deal of money on and devoted a lot of effort to the Ambrymese mission, which, due to an unforeseeable natural catastrophe, had ended in failure through no fault of their own. They saw no other choice but to leave and abandon the Ambrymese to their obscurity. In 1922, however, for the Adventists, the departure of the Presbyterians was interpreted as an opportunity: the Presbyterians’ loss was their gain.
- (6) Finally, for the Protestants from at least 1892 and throughout the duration of the Adventist mission, *tradition* was viewed as the source of Ambrymese problems, a stubborn form of obscurantism that needed to be combatted and finally replaced with the light of civilisation.

The result is a crossed semiosis of two intertwined catastrophes.

### Conclusion: Degree Zero of the Sign

Within those synchronic cultural variations and diachronic evolutions of interpretations, we find an example of what later semioticians, such as Umberto Eco and Roland Barthes, building on the theories of Peirce, would term ‘unlimited semiosis’ (Eco 1976, 69–72) or ‘semiological chain’ (Barthes 1957, 222–223): each sign corresponds to a meaning, but creates a new sign, its interpretation, which in turn acts as a sign, creating a new interpretation, which again becomes a sign with a new interpretation, and so on through history. Despite the differences and disagreements, which were both intra- and inter-cultural, it is also telling to note that there was a precise moment when the interpretation in everyone’s semiological chains matched: on 7 December 1913, the second day of the eruption, everyone was interpreting the sign ‘eruption’ as mortal danger necessitating flight, despite the slight but crucial difference in reaction time.

Semiologically, consensus was not reached on the level of iconic or symbolic signs (geological phenomenon vs agency of Ambrymese sorcerers vs divine act vs violation of taboo). Rather, the eruption was unanimously recognised as indexical evidence of a peril requiring immediate reaction. Beyond cultural differences and personal backgrounds, there was a congruence of will to escape from a mortal threat.

At the moment of a catastrophe, what is happening is only felt without being clearly defined, it is not accurately perceived but is *experienced* (Peirce 1932, 1.335). If at first it cannot be grasped as an event, it can be felt and lived as *a state* (1932, 1.307). In a catastrophe, the usual processes of cognition are saturated and rendered inept, leaving only 'our original faculty of recognizing fact' (1932, 1.376). Thus, from a semiological point of view, catastrophe is indexical, in as much as it forces each person to focus on the unprecedented. A catastrophe overrides semiosis, as a 'tremendous thunderbolt [which] indicates that something considerable happened, though we may not know precisely what the event was' (1932, 2.285).

Stones falling from the sky and lava flowing from the mountains were, for all parties, indexical signs, experienced and then interpreted as necessitating escape. When faced with the force majeure of the volcano on 7 December 1913, Ambrymese and British alike experienced a degree zero of sign, a something, an *It*, that aroused the same visceral interpretation 'impending death' shared by 'all beings whose senses are sufficiently developed' (1932, 1.315).

It seems that there exists a semiological level deeper than language, education, culture, one interwoven with instincts, feelings and sensations. This raises the hypothesis, to be elsewhere elaborated, that while catastrophes certainly give rise to a multiplicity of symbolic and iconic interpretations, still they possess a common indexical ground. Anchored in raw existence, the indexical signs that characterise catastrophe are experienced viscerally and remain, as Peirce (1932, 1.310) put it, 'completely veiled from introspection'. Thus, on 7 December 1913, the degree zero sign 'eruption', in its emotional, indexical interpretation, overrode all symbolic and iconic interpretations, and transformed, for one day, the fractious and mutually hostile populations of Ambrym, into a single community of feeling, which may very well be a signature of catastrophe.

## Note

1. Harold Temar was interviewed by S. Hosni in her doctoral thesis (Las-EHESS, Dir P. Descola). As part of common research for Terrain, Soraya Hosni and Yoann Moreau freely exchanged their data on disaster management. Soraya Hosni having not yet published on this subject, we refer to the works of Moreau (2014, 2017), with our translation, from French to English.

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## ORCID

Moreau Yoann  <http://orcid.org/0000-0003-1178-3517>

## References

- Bandler, Faith. 1979. *Wacvie*. Adelaide: Rigby.  
Barthes, Roland. 1957. *Mythologies*. Paris: Seuil.

- Bolton, Lissant. 1999. "Chief Willie Bongmatur Maldo and the Incorporation of Chiefs into the Vanuatu State." State, Society and Governance in Melanesia Discussion Paper 2. Canberra: State, Society and Governance in Melanesia Project, Australian National University.
- Cawsey, Katherine Stirling Kerr. 2017. *The Kerr Brothers in New Hebrides. Book 1. Anglo-French Experiments in Entente Cordiale*. Hall, ACT: Stringybark.
- Dousset, Laurent. 2016. "La sorcellerie en Mélanésie. Élicitation de l'inacceptable." *L'Homme* 2 (218): 85–115.
- Eco, Umberto. 1976. *A Theory of Semiotics*. Bloomington, IN: Indiana University Press.
- Eriksen, Annelin. 2012. "The Pastor and the Prophetess: An Analysis of Gender and Christianity in Vanuatu." *Journal of the Royal Anthropological Institute* 18 (1): 103–122.
- Fletcher, Robert James. 1923. *Isles of Illusion: Letters From the South Seas*. Edited by Bohun Lynch. Boston, MA: Small Maynard and Company.
- Forsyth, Miranda. 2009. *A Bird That Flies with Two Wings: Kastom and State Justice Systems in Vanuatu*. Canberra: ANU Press.
- Frater, Maurice. 1917. "The Volcanic Eruption of 1913 on Ambrym Island, New Hebrides." *Geological Magazine* 4 (11): 496–503.
- Frater, Maurice. 1922. *Midst Volcanic Fires: An Account of Missionary Tours among the Volcanic Islands of the New Hebrides*. Boston, MA: Pilgrim Press.
- Garrett, John. 1992. *Footsteps in the Sea: Christianity in Oceania to World War II*. Suva: Institute of Pacific Studies.
- Lamb, Robert. 1905. *Saints and Savages: The Story of Five Years in the New Hebrides*. Edinburgh: William Blackwood & Sons.
- Lindstrom, Lamont. 2008. "Melanesian Kastom and its Transformations." *Anthropological Forum* 18 (2): 161–178.
- Marshall, Patrick. 1914. "The Recent Volcanic Eruptions on Ambrym Island." *Transactions and Proceedings of the Royal Society of New Zealand* XLVII: 387–391.
- Miller, Graham. 1989. *LIVE: A History of Church Planting in the Republic of Vanuatu*. Vol. 6. Port Vila: Presbyterian Church of Vanuatu.
- Moreau, Yoann. 2014. "Anthropological Approach to Vulnerability and Major Hazards." In *Vulnerability of Coastal Ecosystems and Adaptation*, edited by André Monaco and Patrick Prouzet, 263–306. New York, NY: John Wiley & Sons.
- Moreau, Yoann. 2017. *Vivre avec les catastrophes*. Paris: Presses Universitaires de France.
- Parkinson, Les. 2005. "Establishing the First Permanent Base of Operations in Vanuatu - Part 8 (Final): Big Bay Santo Island and Ambrym Island." *Journal of Pacific Adventist History* 5 (1): 33–34.
- Peirce, Charles Sanders. 1932. *Collected Papers of Charles Sanders Peirce*. Edited by Charles Hartshorne, Paul Weiss, and Arthur W Burks. Vols. I and II. Cambridge, MA: Harvard University Press.
- Rio, Knut. 2002. "The Sorcerer as an Absented Third Person: Formations of Fear and Anger in Vanuatu." *Social Analysis* 46 (3): 129–154.
- Rio, Knut, and Annelin Eriksen. 2013. "Missionaries, Healing and Sorcery in Melanesia: A Scottish Evangelist in Ambrym Island, Vanuatu." *History and Anthropology* 24 (3): 398–418.
- Tonkinson, Robert. 1981. "Sorcery and Social Change in Southeast Ambrym, Vanuatu." *Social Analysis* 8: 77–88.
- Tonkinson, Robert. 1982. "National Identity and the Problem of Kastom in Vanuatu." *Mankind* 13 (4): 306–315.