

*Environmental Conservation and Mining:
Between Experience and Expectation in the
Eastern Highlands of Papua New Guinea*

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When the clock struck midnight on 31 December 1999, a bolt of lightning flashed across the sky above Crater Mountain in the Eastern Highlands of Papua New Guinea. When the lightning illuminated the mountaintops, a giant golden man appeared in the sky. The Man looked toward Maimafu, a rural settlement on the slopes of Crater Mountain, and then walked across the mountaintops toward a settlement known as Gquasa. When the Man stopped walking, he looked toward Maimafu again and then disappeared.

The Man walked with long, slow strides, “like a white man.” His arms were too long and his knees were slightly bowed. He was so tall and thin that he could not have possibly been human—“a real man made of flesh and blood would have fallen over his legs were so long”—and he was so gold that it hurt to look at him. The people who saw him assumed that he could be seen from miles away. During his walk across the night-darkened mountaintops he looked to the north, south, east, and west. He seemed to take in the features of the landscape, pausing at the site of an ancient landslide, turning his head slowly from side to side as he walked “on the tops of the trees across the forest.” When he stopped and looked toward Maimafu, his gaze burned down on the village, and the blinks of his eyes lit the night sky “like a Coleman lantern.”

Roughly six hundred Unavisa Gimi-speaking people live along the ridgetops that are known collectively as Maimafu Village, located in the Lufa District of the Eastern Highlands Province.¹ For the past thirty years their lands and lives have been intertwined with environmental conservation projects and gold prospecting. This paper examines conservation and mining as they have helped to create local ideas about “development”

and local expectations concerning the future. While environmental conservation and resource development might seem to be antithetical—and in many ways they are, in terms of social, economic, and environmental impacts—in this instance the residents of Maimafu have interpreted the promises they make about the future in similar ways.

In this paper I argue that the Man's appearance is another event associated with the politics of conservation and mining, and that it expresses the unease people feel over the contradictions of modernity that they are faced with when it comes to questions about the future (see Robbins 2001). I also argue that this unease can be seen in an examination of some residents' descriptions of their participation in a "study tour" to the Porgera mine. With this, I hope to contribute to a growing body of ethnography that critically analyzes mining and mines as productive social sites (see esp Ballard and Banks 2003).

CONSERVATION AND MINERAL EXPLORATION AT CRATER MOUNTAIN

Since the early 1990s Maimafu has been a part of the Crater Mountain Wildlife Management Area (CMWMA). This wildlife management area was an Integrated Conservation and Development Project, the goal of which was to conserve biological diversity through the integration of rural peoples into commodity markets via scientific tourism, ecotourism, and handicraft production. The premise behind the project was that income-generating enterprises, which depend on in situ biological diversity for their raw materials and local residents for their labor, would encourage people living in these areas to conserve. These enterprises, or "businesses" (to use the local term), have been less successful than the residents of Maimafu would have liked.² At their core such projects link the value of forests, plants, and animals to promises of income, health care, access to education, and access to markets.

Although the Crater Mountain Wildlife Management Area was not started until the 1990s, the history of conservation-related actions around Crater Mountain begins in the 1970s. In 1973, anthropologist Gillian Gillison arrived in a Gimi-speaking village to the north of Maimafu to conduct ethnographic fieldwork and to try to understand Gimi social life from the point of view of women (G Gillison 1993, xiii). At the time she was married to David Gillison, who was so influenced by his time with the Gimi that he became a wildlife photographer and a conservation enthusi-

ast (G Gillison 1993, xiii). During his time in Papua New Guinea, David Gillison began to worry that his Gimi friends did not know how to manage their forests in a sustainable manner. He argued that this fear was based on his friends' articulations of loss and decline with regard to birds of paradise (D Gillison 2002). When he returned to New York City after Gillian Gillison's initial fieldwork, he befriended several people at Wildlife Conservation International (the international conservation arm of the New York Zoological Society, which is now known as the Wildlife Conservation Society, or wcs) and made them aware of his wife's work, and the value of and diversity in the Gimi forests.

David Gillison returned to Gillian Gillison's field site among the Gimi several times in the 1970s and the early 1980s. While in Papua New Guinea, he made connections with people in the capital, Port Moresby, and elsewhere who were interested in conservation, and spent time walking around the villages in the vicinity of Crater Mountain talking with people about conservation. During this time several men from Maimafu heard about his presence and took trips to go see this "white man," and by the late 1970s several powerful men from Maimafu had "converted" to the belief that if they allowed an environmental conservation project to take place on their lands they would benefit from it in the form of cash income, tourist visits, and social relationships with outsiders.

In 1987, then graduate students Debra Wright and Andrew Mack came to the forests to the south of Crater Mountain to locate a suitable site for their doctoral field research. Mack wanted to study the role of cassowaries in seed dispersal, while Wright wanted to study fruit choices by cassowaries. During their initial field visit, they identified a site north of the confluence of the Pio and Oh rivers, where the Sera River flows into the Oh, where there seemed to be an abundance of large fruits. They went back to the United States and raised the money to return to Papua New Guinea and build a research station. After they returned, they built and lived at the station from 1989 to 1993. They worked with the local landholders, the Pawaia people, and established a set of social relations with them in which some Pawaia came to the station and worked as field assistants.

Because of the social relations established between David and Gillian Gillison and the Gimi peoples, and Mack and Wright and Pawaia peoples, when the Research and Conservation Foundation of Papua New Guinea (RCF)—a national nongovernmental organization started by David Gillison with support from the Wildlife Conservation Society—began dis-

cussions with people around Crater Mountain about the possibility of creating a wildlife management area on their land, people saw it as a continuation of existing social relations and agreed to participate. At the time the Research and Conservation Foundation was established, the vanguard in conservation ideology was the Integrated Conservation and Development Project. When the Crater Mountain Wildlife Management Area was officially established, people in Maimafu took part in it because they saw it as a vehicle through which they could take part in social relationships that would allow them access to the goods and services that they defined as development.

Throughout the history of the wildlife management area, conservation-related actors explained conservation to Gimi in terms of regulating hunting, setting aside bits of the forest for conservation, creating a set of conservation laws to regulate land use, and working with conservation scientists to build conservation-related businesses such as ecotourism. Repeatedly Gimi were told that if they worked with conservation scientists and practitioners they would receive the benefits of development. The Maimafu Gimi interpreted these interactions with conservation practitioners as promises of future social relationships that would help them to access the things they think of as development: reliable medical care, markets for buying goods and selling coffee, adequate education for children, and reliable transportation to and from Maimafu in terms of air travel or road building. Gimi saw themselves as entering into long-term exchange relationships with conservation-related actors that would also benefit the conservationists, through the Gimi's regulating of hunting and the like. The majority of conservation-related actors working with Gimi peoples perceived the proposals in a different way. They saw themselves as promising Gimi that they would teach them how to gain access to markets where they could sell biodiversity-based goods (handicrafts, ecotourism, and their labor as guides for research biologists) and with the resulting cash income Gimi could then pay for medical care, education, and other goods and services. Thus the Gimi saw the conservation proposals as being about exchange relationships, while the conservation actors did not (see West 2006).

During the time when conservation-related actors were working with Gimi to create the Crater Mountain Wildlife Management Area, gold prospectors were also making trips to the Crater Mountain area (Macmin 1997, 2). This is not surprising, given that many contemporary mining projects "have been located in Greenfield territories or frontier zones, among relatively remote or marginalized indigenous communities—often

precisely those communities that have been the classic focus of ethnographic research” (Ballard and Banks 2003, 288), and are also in precisely the places that have been targeted by transnational environmental conservation organizations since the late 1980s.

The first exploration trip around Crater Mountain was in the fall of 1970, and similar exploration was undertaken again in 1971, 1972, and 1977 by CRA [Conzinc Riotinto of Australia] Exploration Proprietary Limited; 1983 and 1984 by Esso; 1988, 1995, 1996, and 1997 by Broken Hill Proprietary (Macmin 1997; Highlands Pacific Group employee, pers comm, Dec 2004). The current exploration license (EL 1115—Crater Mountain) was first granted in 1994 and covers “a rectangular area of 700 Km between 6 39’S 144 56’E and 6 28’S 145 15’E and lies 50 Km south-west of Goroka” (Macmin 1997, 1). Crater Mountain sits in the center of this area. According to people in and around Maimafu, the prospectors who have visited their lands over the past thirty years have said, with each visit, that if a mine is established, people will be given roads, schools, hospitals and jobs. They were told that if a mine is established, “Maimafu will become a town.”

In the late 1990s there was a revival in interest in Crater Mountain. After spending about US\$1 million on a test drill program at the Nevera Prospect Area (at the north end of EL 1115) on land owned by residents of Gquasa village in 1998 and locating “a major gold bearing hydrothermal system,” Macmin considered it “prudent to defer further valuable exploration funds” from Crater Mountain (Macmin 2000).³ The reason given for this deferral was the current low value of gold on the world market, but the “Crater deposit” was still, at that point, termed a “company maker” for Macmin (Macmin 2000).

On 12 June 2002, New Guinea Gold Corporation (NGG) sent out a press release announcing their acquisition of “up to 100% ownership of seven Papua New Guinea gold and gold/copper projects” (NGG 2002). With the transaction on which this press release was based, Macmin (Papua New Guinea) Limited retained at least 75 percent ownership of the five gold projects it had been pursuing in Papua New Guinea as well as the two copper/gold projects. After this acquisition, Macmin sold all of its Papua New Guinea properties to their own Canadian subsidiary. Because the subsidiary is not wholly owned, the deal was loss making, but Macmin gave up total control at a loss in an attempt to raise more funds to continue exploration in Papua New Guinea in general. To date, Macmin has invested US\$12 million dollars in exploration in Papua New Guinea.

On 6 January 2004, a story in the *Papua New Guinea Post-Courier* reported that Macmin Silver Limited, a subsidiary of New Guinea Gold, had signed a joint venture agreement with Celtic Minerals Limited, which gave Celtic a 75 percent interest in the Crater Mountain project (*PNG Post-Courier* 2004a). On 5 February 2004, New Guinea Gold issued a press release regarding the returns at Crater Mountain from a trenching program carried out in December 2003 (NGG 2004). The story was picked up by the *Post-Courier* and ran as a feature on the finance page on 9 February 2004 (*PNG Post-Courier* 2004b). In the press release New Guinea Gold announced their application for an expanded exploration license they had filed with the PNG Department of Mining. According to the release they filed for this expanded license because Crater has such a favorable geological setting in terms of its potential for a “major gold bearing mineralised system.” The *Post-Courier* story announced the trenching data (9.97 grams per tonne gold in one trench) and quoted Peter McNeil, the director of New Guinea Gold, as saying that they have “never had results of this magnitude right at the surface.” The results indicated that this was a potentially lucrative new prospect, with an extremely rich vein, which the company continually likens to the Porgera area (Macmin 2000).

In 2004 Triple Plate Junction, a gold and mineral exploration company with interests in Vietnam and Papua New Guinea, partnered with Macmin and Celtic and began to carry out further exploration in the Nevera Prospect Area. In 2005 they began exploration in the Nimi Prospect Area (on the south end of EL 1115), on land owned specifically by people from Maimafu village.

People who live in Maimafu have little access to Papua New Guinea’s print media, but people from Maimafu who live in Goroka, the capital of the Eastern Highlands Province, can access it daily. The promises that people from Maimafu understand to have been made by the various companies that either have conducted explorations at Crater Mountain or have issued press releases about the prospects at Crater Mountain are derived from a combination of conversations with mining company employees, gossip generated by stories published in the newspapers, and general gossip brought back from Goroka to Maimafu. Their understandings of these promises are also connected to stories that Maimafu’s two elected village ward councilors bring back from Port Moresby, where they frequently travel to “do business with companies.” People from Maimafu believe that if a mining company decides to come and “build a mine” at Crater

Mountain that they will be given a road, a school, and a hospital, and that mining company officials will come to Maimafu to live with them and teach them the things they need to know to access wealth and power. They also think that, like conservation projects, mining will allow them to create social relationships with people from elsewhere who could help them access the things that they think of as development.

This exploration site, the one where people assume “a company” will build “a gold mine,” sits on the border of Maimafu and Gquasa, on the border of the Crater Mountain Wildlife Management Area, and on the border of the Nevera Prospect Area and the Nimi Prospect Area. On 31 December 1999, when the Man stopped his walk, looked toward Maimafu, and then disappeared, he was standing at this site.

THE PORGERA STUDY TOUR

The Man and his appearance have been widely discussed in Maimafu over the past few years. One interpretation of the Man, known as “Man i lait” in Melanesian Pidgin,⁴ was offered repeatedly in 2001 during my ethnographic interviews with men who had recently been on a “study tour” to the Porgera gold mine in Enga Province. They all said, in various ways, that he was a sign that the gold mine would come. Different people explained why the Man was a sign of this and evaluated this prophecy in very different ways. The variations within this interpretation included identification of the Man as the devil, as a man from the past, as a sign of danger, and finally as a sign that Jesus is coming. One man said that the Man was like the mine, stunning and confusing and terrifying to look at, and yet strangely inviting. He said he felt a pull to “follow the Man.” Although each of the different kinds of explanation for the Man is important, my focus here is on the set of explanations offered by men who took part in the study tour. Their explanations show the Man as a kind of local interpretive tool people use to figure out how certain divisions can be crossed and certain gaps can be bridged.

The Research and Conservation Foundation of Papua New Guinea takes men who live in and around the Crater Mountain Wildlife Management Area on study tours a couple of times a year. Tours include varying sites: the botanical gardens in Lae, the national museum in Port Moresby, a logging site in the Gulf Province, and the Porgera mine. These trips are meant to teach the men about the work done on their lands by scientists and conservation practitioners and the ravages done to nature

in Papua New Guinea by logging and mining. These tours become filters through which some people find and make meaning in their lives, come to understand the promises of modernity, and imagine what their future will be like. Men incorporate their experiences on the tours into their personal biographies and interpret them through local and individual history and local symbolic and social articulations. Elsewhere in Papua New Guinea, these tours come to serve as “reference points” in people’s life and labor narratives (Errington and Gewertz 2004, 202).

Frederick Errington and Deborah Gewertz have argued that today in Papua New Guinea such study trips are not “designed primarily for conversion and for subsequent broadcasting of newly realized truths to a home audience. Instead, they are meant to hone the professional and technical skills of selected individuals” (2004, 201). The point is not to transform an entire group of people, but rather to enhance the skills or knowledge of certain individuals “who are already substantially extracted from a ples [place]-centered identity” and who already have been greatly influenced by ways of knowing that are not village centered (Errington and Gewertz 2004, 202). The Research and Conservation Foundation modeled their study tours on others that have taken place in the country, as there is a long history of them and an entire industry in the country that teaches people how to “train” local people in various ways (Errington and Gewertz 2004, 44).

Early on in their work in and around Maimafu, the foundation saw mining as a threat to the conservation of biological diversity, and it stressed this when applying for funding to create the CMWMA Integrated Conservation and Development Project:

One of the few options for significant income generation in these areas is the selling of natural resources, particularly forest resources. An attractive factor from the landowner’s point of view is that a sale of a forest resource requires little to no labor input on behalf of the landowner and the cash returns are large as well as rapid. . . .

The Macminn [sic] mining company in Australia holds the exploration rights for mineral deposits in the CMWMA. Over the next two years, they will be exploring the north flank of Crater Mountain, assessing deposits on land belonging to Ubaigubi. Villagers from Gimi Valley have made several forays into the CMWMA to discuss oil development with landowners from Heroana [sic] and Pawaiia [sic]. Landowners have agreed that this is something they would like to pursue cautiously, but at the moment there is no evidence of any major investors in such a project. It is difficult to predict what kind of impact would stem from oil development. (RCF/WCS 1995, 12, 13)⁵

This concern over mining in Maimafu was articulated again in a 1999 report made to the Biodiversity Conservation Network, the major funding source for the Crater Mountain Wildlife Management Area: “The Maimafu people are telling us one thing and saying another thing to the company. They say that they have categorically denied the company access to their land, but secretly they agree that mining should go ahead. This is not surprising when money is involved” (BSP 1999, 153).

The Research and Conservation Foundation decided to counter the threat from mining by taking adult men from Maimafu on a “study tour” to the Porgera mine in 2001. The men who took part in the mining study tour were impressed in the beginning, as reflected in these comments from Moses:⁶

We went on the plane and they picked us up in cars when we landed. They picked us up in two cars. These were big cars. You could make the windows go down with your hand. They picked us up in the cars and we went on a long road for a long time. We went and we went. Finally, we got to Porgera. By that time it was night so we went to a hotel. It was not a guesthouse, like the one in Goroka. It was like the Bird of Paradise Hotel. We spent the night in a hotel. We slept in the hotel. The hotel, it was . . . [long pause] . . . We slept on white beds. In the morning we got up and they had tea for us. We had tea at the hotel and then the boss of the mine picked us up in cars. These were not big cars, they were little cars. We all got in the little cars and we went. We went to what we thought was the bush. The road went to the bush. But when the cars stopped it was not the bush. We got out of the cars and they told us to take off our shoes. We took them off, those of us that had shoes on, and everyone put on boots. They gave us boots to wear. Then they gave us eye-glasses to wear. Then they gave us hats to wear. The hats were hard.

The men who went on this tour were some of the most powerful men from Maimafu. They were also some of the most well traveled men from the village. These men were extraordinarily impressed by the cars in which they rode and by the hotel where they spent the night. In Papua New Guinea very few people own cars. The local buses, called “PMVs,” are either minivans or large flatbed trucks. Cars are seen as a marker of extreme wealth in the Eastern Highlands. In and around Goroka one hardly ever sees a car on the road.

Moses continued:

So we had the shoes and the hats and the glasses and we went toward a gate. This was the first gate, the first one. When we started walking, the first gate was about as far from where we are now as Johan’s house. We got to that gate

and the police at the gate checked us over. They checked us over and then they let us through this first gate. But I noticed that the people outside the gate, all of the landowners, they were not allowed to go into the gate. Only the men who work in the mine are allowed to go into the gate. The other people just sit outside the gate. I wondered if they just sat outside of the gate all day. They just stayed outside. So suppose they want to come and look in the buildings at the mine, they cannot. Suppose they want to go and talk to the boss of the mine, they cannot. If they come from town to look, they have to stay outside of that first gate. They can't get inside.

During the tour, the men from Maimafu met with many of the contradictions of modernity and capital. One contradiction is that not everyone benefits from them; some people are left behind. The gates to the mine became a metaphor for those people who are "locked out" of the promises of modernity. This locking out caused many of the men on the tour a great deal of anxiety. They had assumed that "when the mine comes," everyone would have access to the social relations that would bring access to "development." To visually experience people being on one side or the other of "development" was quite powerful.

In addition to the first gate, there was a second gate:

After we went inside the first gate, about the same distance from where we parked the cars to the first gate, there was a second gate. After that gate there were other gates that some of the workmen went to and went inside. There were also buildings that people went inside. We got through that one and then inside there was a mountain. They call it a fire mountain.

The next part of the narrative concerns the nature of mining, not only the way that mining is carried out but also the impacts of mining actions on the natural environment after the actions of mining. Moses continued:

Now I want to explain to you. The town, the town where we spent the night, they have things that the company that owns the fire mountain built for them. The company gave them. They have a school and a hospital. But these people that live near this place, near the fire mountain, they don't have anything. This is the bush. It is really the bush. They don't have a town or anything. They have bad houses like our houses right next to the fence and in the bush near this place. But they do not have a town. So the company only built things in the town.

The company, they built things in the town, and all of the people that work in the mine, they come from the town. These people have a good life. If they work in the mine then their children get to go to the school. When the boys finish their fifth year they get to go to school in Australia. The company pays

for this for the people who work in the mine, but not for the people that don't work in the mine. The people that don't work in the mine, they spend the day sitting at the fence and looking inside the fence.

But back to my story. When we got inside we met a white man. He was a giant man. He said to us that there was a problem with all of the people who live around the mine. He said that they all have a problem. He said that "here we have marijuana and the people smoke it all the time." He told us that the people sitting outside of the fence also drank all of the time too. He said that all of the young school-age boys have heads that are messed up from smoke and drink and that they don't want to go to school.

After we talked to him we had lunch and we talked to some of the people who were outside of the fence. They said that the mine did not build them houses. They said that the mine said that they would build them houses and they did not do it. Near the mine they said that there was only one man with a good house. He has a two-story house, but he built it. The mine did not build his house. They said that it is hard to build a house there now. It is hard to find trees and they don't have Kunai grass. They have to use pit pit.⁷

Now let me tell you about the mountain. This mountain with the gold in it is gigantic. It is not like any mountain we have here. We have a good place here, but we don't have any kind of mountain like this. We saw that the company goes inside of the mountain. They go inside of the mountain with giant machines and they break stones up that are as big as the mountains that we have here. They have machines that could break apart all of our mountains easily.

While we were there, one of the landowners came to the office and wanted to talk. The man in the office said that he was busy, that we had come from a long way away to visit and that he was too busy to see them. The landowner said, "That is what you always say. You are always too busy to hear us, to hear our concerns." This is what happened.

The men from Maimafu were keen observers of the social relations of mining—good anthropologists, if you will. They saw the mining town, the town that the company built for its employees, but they also saw the fringes of the town and the areas where people who have not benefited from the mine come and spend time. Another of the most observed effects of the mine was the devastation of the forest around the mine. The men from Maimafu say that the company representatives tried to limit the contact between them and the local residents, but that some of them spoke with the people living around the mine when the company representatives were not paying close attention. The people they conversed with told them that the animals in the forests around the mine have completely disappeared. They were told that people living near the mine do

not eat meat at all unless they buy chicken, tinned fish, or pork from the town. They were also shown some of the local gardens. Concerning these gardens, another man, named Beni, said:

The gardens only have sweet potatoes. They don't have bananas, they don't have greens, they don't have pumpkin, they don't have onions, and they don't have sugar cane. If they want any of these things they must go to Hagen or Wabag and buy them and they must bring them back.

The final question I asked during interviews concerning the mining trip was, "Now that you have seen this mine at Porgera, what do you think about the Crater Mountain mine?" A man named Marva responded:

I am not happy about it now. I have seen a mine and it is not good. But it is hard. It is good and not good. The company comes inside and they do give things to some people. But what if you are not one of the people that get a job or a nice house? What if you have to sit outside of the fence? What if you are a person outside and all you can do is watch?

Look, the landowners, even the ones who got the good houses from the company, their forest is gone. Their mountain is gone. Their game is gone. Their clean water is gone. They do not have clean water. So how can it be good if the company comes?

I am on the side of RCF. I stay with them. In the morning I hear the birds cry. I hear that and it is good. In the morning I walk outside my house and I look over there [toward Crater Mountain] and I see the mountain and it is good. Sometimes in the morning I see the mountain and the sun come upon it and it is good. I see the trees and hear the birds cry. When I see the sun look down on the forest it is good. I go and I walk to the place you can get water from the side of the mountain and I drink it and it tastes good. I stand on the ridge my house is on and it is not too hot, the sun is in the sky, but we get a breeze here. We get a breeze that is good wind.

Marva, like several of the men who visited Porgera, is a village leader who has been deeply involved with the conservation ecologists and activists working in and around Maimafu. His comments demonstrate his connection with conservation as he mentions birdsong and visual nature as two of the things that will be lost if "a mine comes" to Crater Mountain. Pointing to the aesthetics of one's surroundings (Carrier 2004, 1-3) as the most salient loss possible with mining is a way of parroting the conservation discourses so often heard around Maimafu when outsiders from conservation organizations are visiting. But aside from this one mention of birds and breezes, the men from Maimafu noticed and reported the

social conditions around the Porgera mine, not the environmental ones. They did not, for the most part, discuss the river running bright red with tailings or the enormous hole in the earth that is the mine. This focus on the social relationships of mining makes sense given that the Gimi natural world is made through social relationships and thus is of secondary importance (West 2005).

During their trip, the men heard two distinctly different narratives about the mine. On the one hand they heard the official narrative produced by the company officials and company workers who took them on their tour. On the other hand they heard the counter-narrative produced by people living on the outskirts of the mine and not working for the mine. The company told them that they had built houses, a school, and a hospital. They told them that the people around the mine and their children had every opportunity to access development but that the people, for the most part, did not do so because all they wanted to do was smoke marijuana and drink beer all day. The people living on the outskirts of the mine said that the company had promised to build everyone nice houses and give everyone jobs and that they had not done that. They said that the young men who went to the school and then finished the sixth grade could not find work anywhere so they came home and out of boredom they smoked marijuana and drank. They said that the mine was the cause of the alcohol and drug abuse. The men from Maimafu took these narratives home with them and decided that they did not want mining to take place on their lands. But in 2003, when mining company representatives and individuals looking to begin alluvial gold mining around Crater Mountain started coming, once again, to Maimafu, people changed their minds. Once again these outsiders promised the residents of Maimafu that if mining begins at Crater Mountain, a “road will come,” and that hospitals, schools, and stores will be built.

CONCLUSION

Arjun Appadurai has described the dualistic nature of anthropological analysis of non-Western societies in his early examination of the social lives of commodities. Appadurai argued that societies are too often represented as having either “market exchange” or “reciprocity,” and that these representations “parody both poles and reduce human diversities artificially” (1996, 12, 13). This kind of “either/or” analysis is similar to recent analyses of modernity within anthropology. Recently, a debate has

emerged in which modernity is argued to be either global or local (see Englund and Leach 2000). Joel Robbins summed up this debate by arguing that its participants attempt to theorize “the relation between the two polar processes of the modern encompassing the indigenous and the indigenous encompassing the modern” (2001, 901). In his critique of Harri Englund and James Leach’s attack on the “meta-narratives of modernity,” “modernist anthropology,” and the ways in which they see theorists of modernity losing ethnographic authority (2000), Joel S Kahn has argued that ethnography is made richer by those who theorize modernity (2001, 651). He also cogently argued that ethnographers are, because of the socio-historic circumstances of their informants, always pulled into encounters with modernity. As capital has remade the world in its image over the past few hundred years, there are few places where people’s social lives are not tied to “commodification,” “instrumentalization,” and “rationalization” (Kahn 2001, 664–665).

In his analysis of the debate engendered by Englund and Leach (Robbins 2001), Robbins drew on Bjorn Wittrock’s notion of the “promissory notes” of modernity (2000), highlighting the institutions, practices, and conceptions that make up modernity and focusing on the relation between these promises of modernity and the institutions from which they flow (Robbins 2001, 902). He argued that these promissory notes offer new possibilities, and I read this to mean that they offer new ways to both be in the world and to imagine the world. They offer a new present, an imagined future, and a lens through which to understand the past.

The Porgera study tour was a point of articulation between mining and conservation at which people could see the similarities in the kinds of promises each makes and how different the outcomes of the two might be. With conservation, people have been told that they will make social connections and relations that will help them access the things that they term “development.” With mining, people have come to believe that they will be given “development” and make social connections and relations that will allow them to access things that they have not thought of yet as “development.” With the study tour, men came to understand what two possible futures could look like: Maimafu or Porgera.

Since they were “contacted” in the early 1950s by Australian colonial patrol officers, people living on the slopes of Crater Mountain have heard promises about their future. First, with the patrols onto their territory in 1952, 1953, and 1954, they were promised jobs and waged labor on plantations that would transform their lives. Next, with patrols in the late

1950s, they were promised cash income from agriculture if they would begin growing and harvesting coffee. In the 1960s, patrol officers promised them governmental infrastructure that would include schools and health clinics, and the Christian missionaries who began to visit the region during this decade promised them both “development” and “salvation.” In the 1970s the promises of conservation and mining began. For the Gimi in Maimafu and around Crater Mountain, all of their intercultural contact with outsiders has led to promises being made. Very few of these promises have been realized.

Mybo, an elderly man from Maimafu, remembers his father telling him that the Australian colonial patrol officers were going to help build a road from Maimafu to the “head of the road” in Ubaigubi in the 1960s; there is still no road to Maimafu. Kobe, an elderly woman, remembers talks with her now-deceased husband, before they were married, about the coffee business they would build together. Today, people grow coffee, but since there is no road, market access is very difficult. Kama, a lay missionary, remembers going to church meetings as a small boy and hearing that the church would provide schools and health clinics. Today Maimafu has no teachers and no medical care. The list of promises could go on forever. Both gold prospecting and environmental conservation have made the same promises of development that other intercultural interactions have.

People from Maimafu want medical care, education, jobs, roads, and commodities like tin roofing material, trade-store goods, blankets, and shoes. These are some of the promises of modernity in rural Papua New Guinea. The Maimafu Gimi imagine that they will see these promises met through the social relationships that they form with people from elsewhere, or outsiders. Today, the majority of outsiders that they interact with are either conservation ecologists and activists or mining company employees. The residents of Maimafu seek to establish social relationships with these outsiders because they see material items and access to services as possibly provided through them. Indeed, it is only through social relations that material items and access to nonmaterial things come into being for Gimi. For Gimi there is no difference between things and access and social relationships.

Throughout this paper I have shown that Maimafu Gimi see certain divisions as particularly salient. They see town and bush, and inside-the-fence and outside-the-fence, as important divisions. And they think that these divisions are going to be bridged by social relationships. So social

relations with miners and conservationists will provide access to goods and services and help to bridge spatial, social, and ideological divisions. The image of the Man moving across the night sky, from Maimafu to the mining test site, makes sense then, as it is a person, and most likely a European—he walked “like a white man”—who will bridge the gaps and provide the social links between the other salient division for Maimafu Gimi, developed and not developed.

The Man is the collective imagining and embodiment of the anxiety people feel over making a choice between mining and conservation. His midnight walk bridged the gap between here and there, mine and forest, developed and not developed, and other salient divisions in Gimi ideas about their lives today and their possible lives tomorrow. His appearance is one more event in the long history of mining, conservation, and promises.

* * *

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Notes

1 Both “Maimafu” and “Crater Mountain” are particular kinds of spatial productions that are tied to the area’s history of interaction with the agents and processes of the state, conservation, and anthropology (West 2006).

2 Elsewhere I examine the successes and failures of these enterprises (West 2000; 2006). Generalizing here, it can be said that scientific tourism has added significantly to the local economy while ecotourism and handicraft production have not. None of the income generated by these enterprises begins to approach the income generated by local coffee production.

3 Macmin is listed on the Australian Stock Exchange and works in gold, silver, and base metal exploration in both Papua New Guinea and Australia. All of the Macmin activity in Papua New Guinea arises from a US\$40 million exploration program by the US-based company Exxon beginning in the 1980s. Macmin now owns the database from the Exxon program (Macmin 2000).

4 Gillian Gillison reported that a similar golden man appeared around Ubaigubi several times in the 1970s and 1980s (pers comm, circa 2002). She

heard stories about him but did not pursue them, as they were very vague. It has been suggested that the Man is some sort of manifestation of what has been thought of as the cargo-cult culture of Melanesians (Berndt 1954). This is the idea that there is something inherent in Melanesian culture, or even the Melanesian psyche, that leads to cargoism or the connection of material gain to supernatural forces (Lindstrom 1993, 65). One could read the Man's appearance as the beginnings of a kind of cult or social movement surrounding the material gain that people wish to access through both mining and conservation. Yet, Lamont Lindstrom has argued powerfully that explanations of cargoism and cargo cults might well reflect our projections onto Melanesians more than Melanesian social movements or Melanesian understandings of how the world works (1993). In addition, as I argue in the beginning of this article, the Maimafu Gimi see both conservation and mining as ways to access social relationships that will give them access to the things they terms as development and not as ways to access material gain as such. A reading of these events as related to cargo cults would "overwhelm" other possible explanations or readings and assume that a kind of "cargo thinking" is always behind how people in Papua New Guinea think about and see the world (Lindstrom 1993, 62).

5 In addition to the exploration for gold near Crater Mountain, there has been oil exploration in the area since the 1990s.

6 The narrative about the study tour was one of many similar narratives I collected in 2001 and 2002. I interviewed each of the men from Maimafu who had been on the tour and they all had similar stories to tell. I have chosen this narrative because of its clarity and brevity. All names are pseudonyms.

7 Kunai grass (*Imperata cylindrica*) is commonly used for thatching the roofs of traditional homes in Papua New Guinea. Pit pit is a kind of wild sugarcane (*Saccharum* spp.); the stalk is edible.

References

Appadurai, Arjun

1996 *Modernity at Large: Cultural Dimensions of Globalization*. Minneapolis: University of Minnesota Press.

Ballard, Chris, and Glenn Banks

2003 Resource Wars: The Anthropology of Mining. *Annual Review of Anthropology* 32:287-313.

Berndt, Ronald M

1954 Reaction to Contact in the Eastern Highlands of New Guinea. *Oceania* 24 (3): 190-274.

BSP, Biodiversity Support Program

1999 *Biodiversity Conservation Network 1999 Annual Report: Final Report*. Washington DC: Biodiversity Support Program.

Carrier, James G

- 2004 Introduction. In *Confronting Environments: Local Environmental Understanding in a Globalizing World*, edited by James G Carrier, 1–29. Walnut Creek, CA: AltaMira.

Englund, Harri, and James Leach

- 2000 Ethnography and the Meta-Narratives of Modernity. *Current Anthropology* 41 (2): 225–248.

Errington, Frederick, and Deborah Gewertz

- 2004 *Yali's Question: Sugar, Culture, and History*. Chicago: University of Chicago Press.

Gillison, David

- 2002 *New Guinea Ceremonies*. New York: Harry N Abrams Inc.

Gillison, Gillian

- 1993 *Between Culture and Fantasy: A New Guinea Highlands Mythology*. Chicago: University of Chicago Press.

Kahn, Joel S

- 2001 Anthropology and Modernity. *Current Anthropology* 42 (5): 651–681.

Lindstrom, Lamont

- 1993 *Cargo Cult: Strange Stories of Desire from Melanesia and Beyond*. Honolulu: University of Hawai'i Press.

Macmin

- 1997 EL 1115 Crater Mountain Site Report. Unpublished manuscript, copy in author's files.
- 2000 Macmin N.L. Current Projects Crater Mountain. 9 February. <<http://www.macmin.com.au/Crater.html>> [accessed 9 Feb 2002]

NGG, New Guinea Gold

- 2002 New Guinea Gold Corporation (the Company) to Acquire up to 100% Ownership of Seven Papua New Guinea Gold & Gold/Copper Projects. News Release, 12 June.

- 2004 Crater Mountain Trenching Returns High Gold Results. News Release, 9 February.

PNG *Post-Courier* (Port Moresby)

- 2004a Macmin Silver Ltd. Signs Joint Venture Agreement with Celtic Minerals Ltd. 5 January.

- 2004b High Gold Results at Crater Mountain. 9 February.

RCF/WCS, Research and Conservation Foundation and Wildlife Conservation Society

- 1995 Crater Mountain Wildlife Management Area: A Model for Testing the Linkage of Community-Based Enterprises with Conservation of Biodiversity. Biodiversity Conservation Network Implementation Grant Pro-

posal. Goroka, PNG: Research and Conservation Foundation of Papua New Guinea; New York: Wildlife Conservation Society.

Robbins, Joel

2001 *God Is Nothing but Talk: Modernity, Language, and Prayer in a Papua New Guinea Society*. *American Anthropologist* 103 (4): 901–912.

West, Paige

2000 *The Practices, Ideologies, and Consequences of Conservation and Development in Papua New Guinea*. PhD dissertation, Department of Anthropology, Rutgers University, New Brunswick, New Jersey.

2005 *Translation, Value, and Space: Theorizing an Ethnographic and Engaged Environmental Anthropology*. *American Anthropologist* 107 (4): 632–642.

2006 *Conservation is Our Government Now: The Politics of Ecology in Papua New Guinea*. Durham, NC: Duke University Press.

Wittrock, Bjorn

2000 *Modernity: One, None, or Many? European Origins and Modernity as a Global Condition*. *Daedalus* 129 (1): 31–60.

Abstract

Since the 1970s the residents of Maimafu village, a rural settlement in the Eastern Highlands of Papua New Guinea, have been affected by both an environmental conservation project and a series of gold mining explorations on their lands. The paper examines this history of conservation and mining and shows how residents of Maimafu have struggled to interpret the promises made by ecologists and miners. Using stories about a mining study tour some residents took to the Porgera mine, the paper also discusses how people come to imagine what their future might look like if mining begins taking place on their lands.

KEYWORDS: Papua New Guinea, Porgera, Maimafu, mining, conservation, development, expectations