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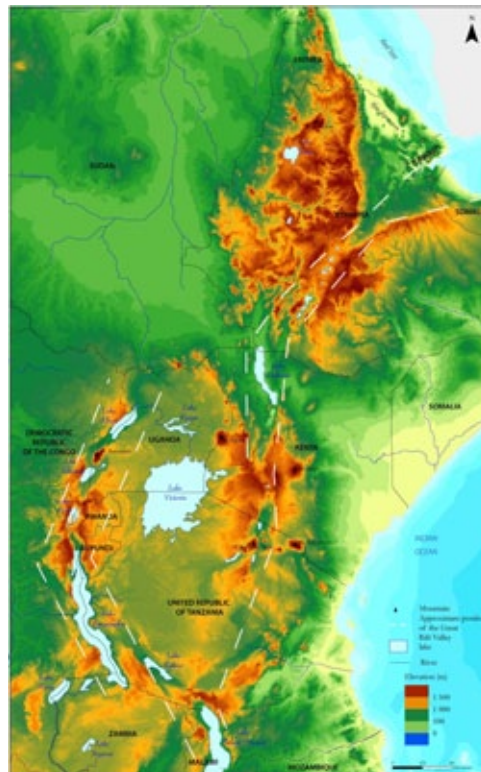
Christopher Conte

## Africa's Mountains: Collecting and Interpreting the Past

### Introduction

Highland landscapes are central to Africa's agrarian history. People have successfully managed them for agriculture and pastoralism for thousands of years. In eastern Africa, the subject of this essay, highlands offer a very attractive place to live; they are well watered, cooler than the surrounding savannas, and historically malaria free. Not surprisingly, then, the high country tends to be more densely populated than the iconic East African plains that lie below. This essay addresses the challenges of collecting and interpreting data for the environmental history of East Africa's highlands, here defined as an ecological category that includes steep-sided mountains as well as the Great Rift Valley's more gently sloping escarpments with their hills and plateaus situated well above 2,000 m.

Over the past two centuries, many highland regions across eastern Africa have witnessed pulses of violence stemming from conflicts over land, water, and forest. Of course, crisis and upheaval always stand out in the historical record, but highland history is also filled with less visible, but no less important, examples of landscape restoration and the creation of ecological health and productivity. As a whole, mountains in eastern Africa tend to be intensively managed environments susceptible to dramatic ecological transformations.



**Figure 1:** Map of the Great Rift Valley. Source: "Africa: Atlas of Our Changing Environment" (Nairobi, Kenya: United Nations Environmental Programme, 2008).

## The Context

My first introduction to African highlands came at Narok, Kenya, where I taught high school as a Peace Corps Volunteer from 1981 to 1983. Narok High School (2,200 m above sea level) sits on a rolling hillside two miles north of Narok town (1,900 m). Narok, in the Maasai language, means black, and refers to the color of the river that runs through town. The river is blackish red because of cedar resins that leach into the river from riparian forests at the headwaters. From Narok, the dirt and gravel road leading north toward my school climbed from a dry, windy, and dusty flood plain in town up to the well-watered hills of the Mau Escarpment, a massive wall of long ridges that hover above the Great Rift Valley in western Kenya. Sitting on a pile of gravel beside my house in town and looking in the other direction, to the south, I could see the Loita Hills. The lush pastures of these rolling hills, many of them extinct volcanoes, were grazed by Maasai cattle in the dry season. The Mau uplands to the north had also been a dry season grazing area.<sup>1</sup> In addition to pastoralists, I heard about people called Okiek (often derogatorily, Dorobo), a foraging group that used the upper Narok River valley and the Mau forests in the early 1980s.<sup>2</sup> After independence in 1963, the Kenyan government began to open a large portion of this rainy and cold hill country to exploitation for lucrative commodities like timber and wheat, which meant the eventual exclusion of pastoralism. Since the 1990s, the Mau has become known as a magnet for the large-scale immigration of landless people from neighboring highland regions in central and western Kenya. The immigrants, mostly small-scale farmers, have settled in for the long haul. In only a few decades, the Mau landscape had been changed from the forest and pasture used by Okiek and Maasai into fields of wheat, gardens, tree groves, and residence compounds, all managed by recent immigrants.

As a doctoral student in 1990, I had planned to return to Kenya to study the social and ecological history of the Mau Escarpment, but the political tension in Kenya convinced me to apply for funding in neighboring Tanzania. The large influx of people into the Mau region has not played out without conflict. During the presidential elections of 2007, the tension exploded into deadly ethnic violence that claimed the lives of several thousand people in Kenya's Rift Valley Province, which includes the Mau. Of course, this was not

1 For Maasai environmental history, see the works of Richard Waller, for example: "Ecology, Migration and Expansion in East Africa," *African Affairs* 84 (1985): 347–70; "Tsetse Fly in Western Narok, Kenya," *Journal of African History* 31 (1990): 81–101.

2 Any hike down to and along the Narok River would reveal their ladders wedged into the rocks below their beehives.

the first such episode in the history of Kenya's highlands. The Mau Mau rebellion of the early 1950s, one could argue, constituted a similar sectarian and bloody conflict over the most productive agricultural lands in Kenya.

Land conflicts are not exclusive to Kenya. One of my MA students faces similar challenges on Mozambique's Gorongosa Mountain, which occupies the southernmost extension of Africa's Great Rift Valley. At Gorongosa, upland communities are exceedingly unhappy about the central government's extension of Gorongosa National Park onto areas that they farm. According to the terms of the mountain's annexation as park property, those living above the 700-meter elevation gradient must abandon their homes for an uncertain resettlement in another area. The government has taken the position that the mountain watershed, which supplies the park wetlands, is under threat from small-scale agriculture and must be strictly protected within the park. In a series of protests, mountain dwellers have taken to setting forest fires and destroying the tree nurseries set up by the national park for restoration efforts. Trees have become a symbol of oppression. Complicating matters further, in a protest against their exclusion from political power, the former Mozambican rebel group RENAMO has reformed itself on the western side of Gorongosa Mountain.<sup>3</sup> Government troops have responded by setting up a series of checkpoints along the area's main roads. The atmosphere remains tense and has swirled into deadly violence several times over the past few months.

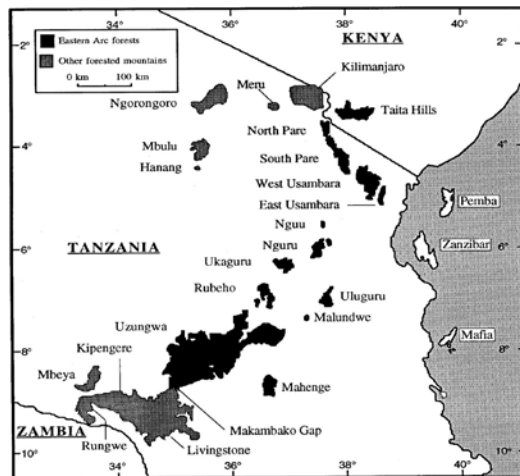
Kenya and Mozambique are but two examples of challenging political and economic contexts that face researchers. Rwanda, Burundi, and the eastern Democratic Republic of the Congo contain heavily populated highland areas where historical research is both exceedingly problematic and a potential tool for explaining and defusing the tension. In what follows, I outline my own research experience in the Usambara Mountains of northeastern Tanzania. The Usambaras have seen many battles over resources, but although low-level violence has occurred, it has not reached the levels apparent in Kenya or in the lakes region of the western Great Rift Valley. Nonetheless, even in a relatively peaceful place like the Usambaras, many people have only a very tenuous claim to the land on which they make a living.<sup>4</sup>

3 The civil war in Mozambique lasted from the late 1970s until 1992. The peace negotiations legalized RENAMO (short for *Resistência Nacional Moçambicana*) as a political party.

4 For a discussion of land tenure history see Christopher Conte, *Highland Sanctuary: Environmental History in Tanzania's Usambara Mountains* (Athens, OH: Ohio University Press, 2004), 115. Land use is tied more to rights of access than to ownership with title deeds. Most land owners have a number of very small and dispersed garden plots. For those who hold no land rights, space may be borrowed or rented. Many of these landless people are women, and they are vulnerable to eviction and drought.

## Conservation Biology, the Human Sciences, and Natural History: Intellectual Discourse and Landscape Health

Figure 2:  
Detail map of  
Eastern Arc  
Mountains.  
Source: P. J. Platts  
et al., "Delimiting  
Tropical Mountain  
Ecoregions  
for Conservation,"  
*Environmental  
Conservation*  
38, no. 3 (2011):  
312–24, ac-  
cessed through  
Dryad Digital  
Repository,  
<http://datadryad.org/resource/doi:10.5061/dryad.c5310>, on  
16 June 2014.



The Usambaras form part of the Eastern Arc Mountains, a series of geographically isolated massifs, or inselbergs, rising from the surrounding plains. The mountains were uplifted over thirty million years ago. They are now heavily weathered and intersected by numerous stream valleys. Farmers cultivate both the valley bottoms and the steep slopes surrounding them to grow a variety of food and cash crops. In some regions of the mountains, people invest

sustained labor in building and maintaining farming terraces and irrigation furrows.

The massifs run roughly north to south from the Kenya-Tanzania border to Malawi, most of them less than 100 km from the Indian Ocean coast. Their location, just south of the equator and relatively near the ocean, exposes them to monsoon seasons associated with the annual movements of the Intertropical Convergence Zone. Once the monsoon storms hit the mountains, their rain falls differentially over the rugged terrain, with the southeast-facing slopes receiving the most intense precipitation. Rainfall amounts decrease as one moves to the northwest. The complex topography also creates a number of microenvironments along elevation gradients. In the Eastern Arc, long-term climate stability, elevation, aspect, slope, geology, and biological evolution have combined to foster very high levels of species endemism and diversity in mountain forests.<sup>5</sup>

Since the 1880s, the Eastern Arc has attracted the interest of European natural scientists. Important work was done on biological diversity in old growth forests during the German era (late 1880s–1916). More recently, the Eastern Arc Mountains have become

5 Neil Burgess et al., "The Biological Importance of the Eastern Arc Mountains of Tanzania and Kenya," *Biological Conservation* 134 (2007): 209–31.

internationally known as biodiversity hotspots deemed worthy of intensive study and strict protection. Organizations like the International Union for the Conservation of Nature, the World Wildlife Fund, various offices of the United Nations, and many other organizations seek to save the Eastern Arc forests from loggers and small-scale farmers. Working in concert with these international efforts and as part of the Convention on Biological Diversity, the Tanzanian government has designated some Eastern Arc Forests as National Parks (Udzungwe and Amani), thus giving them strict legal protection on paper. Conservationists have generally supported government actions that restrict access to forests, and have worked together with the governments of Kenya and Tanzania to increase the number of designated conservation areas across the Kenyan and Tanzanian highlands. Much published work in the social sciences and the humanities has sharply criticized these efforts on the grounds that they unfairly displace farmers.<sup>6</sup> The situation has led to a sharp divide between conservation approaches in the academy.

Natural scientists who advocate for forest preservation in the Eastern Arc portray mountain forests as fragments reminiscent of much larger tracts in former times. The remaining pieces serve as extraordinarily valuable places for the study of the earth's evolution over very long timescales. Despite a long history of human interaction with the land, research and advocacy from the biological sciences tends to assume human activity is axiomatically destructive. While ecological degradation is part of human habitation in the Eastern Arc, farming and herding communities have been using the mountain forests intensively for iron smelting, agriculture, and pastoralism for more than two millennia. Forest regrowth is also part of the history of human land use.<sup>7</sup> Human history and forest history have long been intertwined in important ways.

### **The Practical Issues of Working in East Africa**

Without significant collaboration and help from African colleagues in the archives and institutions of higher education, and without the generosity of Tanzanian citizens across

6 For Mt. Meru and Arusha National Park, see Roderick Neumann, *Imposing Wilderness: Struggles of Livelihood and Nature Preservation in Africa* (Berkeley: University of California Press, 1998). For a broader vision of conservation as an industry in Africa, see Daniel Brockington and Katherine Scholfield, "The Conservationist Mode of Production and Conservation NGOs in sub-Saharan Africa," *Antipode* 42 (2010): 551–75; for the Eastern Arc Mountains, see Christopher Conte, "Forest History in East Africa's Eastern Arc Mountains: Biological Science and the Uses of History," *Bioscience* 60 (2010): 309–13.

7 See James Fairhead and Melissa Leach, *Misreading the African Landscape: Society and Ecology in a Forest-Savanna Mosaic* (Cambridge: Cambridge University Press, 1996).

the country, I could not conduct historical research there. Even with their help, assembling and executing a research plan takes time, local knowledge, patience, and funding. Unfortunately, grants and fellowships for Africa research in the social sciences and humanities are limited in number. By the standards of the natural sciences, humanities research in Africa draws very small amounts of money. Given this paucity of major funding, multi-year research stints in Africa have become a rarity. Nonetheless, many American Africa specialists do piece together smaller grants for shorter stays.

The Tanzanian National Archives, a rich source for environmental history, are in Dar es Salaam, Tanzania's lively capital city of several million people.<sup>8</sup> Before moving to the sources, however, researchers must collect adequate permissions from the relevant agencies in the host country, a process that usually takes a couple of weeks.<sup>9</sup> "Dar" is expensive, hot, and crowded. Simply moving from office to office by vehicle can take hours and much energy. Once the paperwork is in place, however, researchers receive fairly open access to important archives and government collections. The German and British colonial documents include scientific reports from scientific research stations, administrative reports on agriculture and forestry, and annual and semi-annual District and Provincial reports on local political conditions.

Unfortunately, insects have eaten many of the German administrative reports, but some remain readable. These archives constitute the bread and butter of most scholarly studies of Tanzanian history. Other important environmental history materials are in the survey office near the harbor. They hold aerial photographs, maps, and tracings.

Mining district and provincial offices can yield vital information. In 1992, I was lucky enough to gain access to a number of files from the District Natural Resources Office in Lushoto. An officer for the Ministry for Natural Resources generously opened a closed closet door and pulled out a stack of files that turned out to be reports from British forestry officers for the period between the early 1920s and the 1950s. Among other documents, the files included "safari reports," a daily accounting of the obser-

8 Dar's population is anybody's guess. Census data puts the figure at 4,364,541. See *2012 Population and Housing Census: Population Distribution by Administrative Areas*, National Bureau of Statistics, Ministry of Finance, Dar es Salaam, Office of Chief Government Statistician, President's Office, Finance, Economy and Development Planning, Zanzibar, March 2013.

9 In Tanzania, one cannot conduct any research, be it archival or in the field, without a permit from the Tanzanian Commission on Science and Technology. Photography requires permission from the Ministry of Information. Researchers must also be Tanzanian residents.

vations of forestry officers who were riding on horseback or walking the Usambara Mountain Forest Reserve boundary survey line that the Germans had established in the early 1900s. The reports added surprising depth to the forestry files and reports from the National Archives.

### *Oral History and Landscape Readings*

Although important, the colonial sources contain very few African voices. In the Usambaras, most men and women have invested much labor into gardening or herding cattle in the mountains. In the 1990s, I found that important indigenous knowledge remained with my informants, but that was 20 years ago. Some elders could walk the hillsides and point out small dams and furrows and tell the stories associated with the place. Knowledgeable informants could also describe a particular landscape's value in economic, ecological, or cultural terms, telling the stories of places imbued with spiritual and aesthetic value. Some of the elders reached back into the German era for memories of labor requirements, evictions, and allegorical tales from the early missionaries.

### *The Fieldwork*

When I arrived in August of 1991, I gathered my permissions and went to work in the Tanzania National Archives. In October, I rented a house in the central part of the mountains at a place called Mkuzi and purchased a small 1972 Suzuki jeep (800 cc engine). Every day during my first few weeks, I walked local roads and paths, greeting people along the way. Rural people in Tanzania are generally highly sociable and so greetings often led to conversations, which inevitably turned to my intentions. People often suggested names of knowledgeable informants. The hikes also helped me to get a feel for the landscape and how people worked on it and moved across it.

English was not an option in most of these interactions. Field research with oral informants requires at the very least a basic fluency in Kiswahili, Tanzania's national language, and some familiarity with the vernacular languages spoken in a given region. People in the Usambaras usually speak two or more languages. Therefore local, multilingual research assistants are absolutely essential to gathering and interpreting oral testimony. I got lucky when I happened to give a lift to a local high school teacher. After I laid out my plans to my passenger, he told me about one of his colleagues who might be interested in working with me. That is how I came to meet Peter Mlimahadala, a high school teacher who had recently finished a BA in history from the University of Dar es



Salaam. Peter belonged to the Mbugu ethnic group, and he spoke the other two indigenous languages of the Usambara Mountains, Kishambaa and Kipare. Peter is also blind and had attended the Irente School for the Blind in Lushoto, where he learned to type and to read braille. Peter was a brilliant conversationalist and he developed into a charismatic and dogged interviewer. Peter's grandfather, Mlimahadala, had been a highly respected and well-known chief in the central region of the Usambaras, so his name lent a certain weight to our various encounters. We had the good fortune to conduct almost all the interviews in the vernacular with Peter immediately translating for me into Kiswahili, which most informants also spoke fluently. They could therefore point out mistakes or omissions in Peter's translation to me.

**Figure 3:** Mbamba ceremony. The *regulo* (district chief) of Kanda carries out the Mbamba ceremony on behalf of the author. It is customary practice for a visitor to Gorongosa Mountain to obtain the blessing of the *regulo* for a safe journey. Photo courtesy of the author.



Despite their importance, oral history and traditions rarely lend themselves to easy interpretation and integration into a text. Memories do not come to mind without interference from the contemporary context. In the case of the Usambaras in 1991, the German aid agency, Gesellschaft für Technische Zusammenarbeit (GTZ), was in the process of implementing the Soil Erosion Control and Afforestation Project (SECAP), which in many ways mirrored very similar colonial efforts in the 1940s and 50s. People often wanted to discuss their grievances with SECAP in the context of earlier colonial efforts, which they likewise saw as unjust impositions.

I worked from a set of questions and talking points that I continually refined and revised. Peter and I discovered quickly that individual informants had different sets of expertise, experience, and knowledge. As our body of evidence grew, we developed follow-up questions and often visited informants for subsequent sessions. Stories of “hungry years” surfaced again and again in the recollections of agrarian history. While the famine histories emphasized the causes of crises, they tended also to explain strategies for mitigation. The process might involve gardening in marginal areas—since rain-fed agriculture was impossible, difficult-to-work places like swamps were cleared, burned, and cultivated—or implementing technological fixes like irrigation.

The forest itself is a historical source. As I mentioned above, some pieces of old growth forest still cover the Usambara Mountains. The botanical composition of the fragments can reveal much about settlement history. A grove of camphor and mahogany trees, for example, may point to abandoned garden sites. Detailed landscape readings are available in the documentary sources as well. The quality of the descriptions varies from slipshod reminiscence to careful observation of biogeography, demography, settlement patterns, and agricultural potential.

### An Accessible Past: Public History

In the future, environmental historians of East Africa’s highlands should expand their audience from scholarly circles and give an accounting to the people about whom they write. A publically accessible and well-informed interpretation of a place’s history can enrich a community, especially in places where people are at odds over land. Recall the Mozambican student who is writing an environmental history of the southern Rift Valley at Gorongosa National Park, a place riven by violence between 1978 and 1992. In an effort to support the process of social and ecological restoration, he intends to make available the hundreds of stories he has collected from elders. Stories of societal health and biological productivity might then be told alongside those of violence and warfare.



**Figure 4:** From left to right, Seuya, Baharia, and Mlimahadala, 1992. Mzee (term of veneration for an elder) Seuya was a priest and held a great deal of cultural and historical knowledge about the Mbugu people. He was well into his nineties at this time. Baharia was Seuya’s nephew and helped to clarify when Seuya’s memory failed him. Mlimahadala was the author’s research assistant.