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## The Mobile Workshop

Clapperton Chakanetsa Mavhunga

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Mavhunga, Clapperton Chakanetsa.

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# 1 How *Vanhu* Managed Tsetse

Writing in 1932, the white South African antiquarian B. H. Dicke commented on how *mhesvi* had spectacularly saved people living north of the Limpopo River from certain conquest by the Boers, the Cape descendants of Dutch settlers. Locals warned two such Boers, Hendrik van Rensburg and Louis Trigardt, about the “dangerous” *mhesvi*-infested belt ahead. “That warning was not heeded,” Dicke said:

The tsetse fly ... destroyed the trekkers’ draught animals and forced them gradually to abandon all their wagons in the same manner as it caused the *voortrekkers* ... to leave their wagons behind, one after another, on the road they were traveling to Delagoa Bay. Without wagons the van Rensburg group of *voortrekkers* was unable to avail itself of the usual Boer tactics of forming a *laager*, and ... he was at the onset deprived of his chance of offering successful resistance by the tsetse-fly.

In 1847 the Boers defeated [Mzilikazi] in Southern Rhodesia. In 1851 they defeated Sechele in Bechuanaland. In both instances the Boers took no advantage of the situation [because] the fly cut off the supply base, and would have isolated men who might have settled in the country of the defeated chiefs. ... *It was the tsetse-fly that saved all those chiefs.*

By the time the fly-infested areas contracted and passages opened through them, British influence had secured a footing in Bechuanaland and Southern Rhodesia. But, without the fly there would not have been an independent Lobengula [the Ndebele king] to grant concessions, there would not have been a Chartered Company, and South[ern] African history during the last forty-odd years would have run in entirely different channels. (Dicke 1932, 795–796; emphasis added)

Dicke’s conclusion is that all people north of the Limpopo River owe *mhesvi* a huge debt of gratitude for saving them from certain conquest. This raises a question: How did *vanhu* (people) relate to *mhesvi* in general?

This chapter uses the accounts of *vachena* as eyewitness confessions to *vatemala*’s understanding of *mhesvi*. This is a *vachena*-compiled archive, in which white travelers and settlers tell their own stories. I do not care

much about everything else they say; I do take interest in their accounts as bearing witness and confessing to *vatema's zvokwadi* (truths, facts; singular *chokwadi*) about *zvipukanana*, especially since these often were the only facts available to aid their survival in this tropical environment. What masquerades as a colonial library—an archive assembled by colonists and filtered through their biases and priorities (Mudimbe 1988)—turns out to be also *vachena's* confessions of what *vatema* were doing. The “coloniality” of what Mudimbe called a “colonial library” turns out to be something of a ruse, even for such institutions as the church and later the “colonial state,” forced by hardship to appropriate local idioms as opposed to handing out the fruits of so-called civilization to “the native.”

It would have been easy for me simply to resort to ethnographic accounts and interviews of elderly people in their eighties and nineties (born in the 1930s–1940s) whose parents were already adults when *vachena* occupied *vatema's* lands (in the 1890s). Their accounts have been used like this before: as “oral traditions” or sources of evidence that reveal *vatema's* voices without filtering them through *vachena's* subjectivities. Such a method would be perfect if I was looking for the “unfiltered African voice.” I prefer instead to hear nineteenth-century *vachena* confessing on paper, in their own words, what they saw and experienced while traveling in the Southern African countryside. Indeed, the last half of the nineteenth century constitutes the critical moment of encounter between *vanhu vatema* and white hunters, missionaries, traders, and self-styled “explorers” that yielded the archive upon which this chapter is based. From the 1850s to *vachena's* partition of *vatema's* lands in the 1890s, these travelers published papers on *vatema's* understandings of *mhesvi*, its movements, and its management in journals that professed to be scientific and professional.

### Strategic Deployments

Where Dicke attributes to *mhesvi* the continued independence of people along and north and east of the Limpopo, I look for the *ruzivo* of the locals that enabled them to practice what I call *strategic deployment*. By this I mean the transformation of natural features such as steep mountainsides, swamps, and forests into pest-control infrastructure without even touching them—for example, people placing the *mhesvi* between themselves and their enemies. In that way, people turned *mhesvi* into a weapon against their aggressors (without touching it). Alternately, such *mhesvi*-infested areas were simply avoided.

The following are several examples. The first is that of “*bantu*”-speaking herders of *mombe* (cattle), whom archaeologists say had moved south through a strip of land between the Kgalagadi and upper Limpopo because this area was a *mhesvi*-free “corridor” in the period prior to 1 CE. They would have stayed north of the Limpopo, but they were pushed through the *mhesvi*-infested belt into the Transvaal by “*bantu*,” migrants from the Cameroon-Nigeria borderlands who arrived in the region around 300 to 500 CE. *Mhesvi* ensured that no cattle-keepers could settle on the Limpopo Valley without losing their *zviphuyo* (Dicke 1932, 793). We have no record— orally, ephemerally, or textually—of what these early peoples called this deadly *chipukanana*.

In a second example, the rulers of the sprawling Munhumutapa kingdom deliberately left an area near the Indian Ocean unsettled because of the presence of *mhesvi* and *hutunga*. Munhumutapa (the king) ruled over his *vedzimbahwe* subjects, among whom the *chipukanana* was (and is still) called *mhesvi*. The presence of *mhesvi* in the eastern territories of Munhumutapa comes from Portuguese documents. In 1569, two Portuguese travelers—the army captain Francisco Barreto and the Jesuit friar Father Francisco Monclaro—left for Munhumutapa at the head of a formidable expedition of five companies, each two hundred harquebusiers strong, backed by a corps of cavalry and cannon and twenty small ships. Trouble started when the mission reached Sena, 120 miles inland. The horses started dying—along with cattle and, soon, even the troopers. Monclaro concluded that the local Swahili guides had poisoned the grass and the waters and asked Barreto to see to their execution. Barreto was eager to oblige—but the deaths continued. Only fifty men survived. Barreto was not among them (Monclaro [1571] 1975). As it happens, the expedition at that time was trudging through thick *mhesvi* and *hutunga* country.

This instance of strategic deployment in the environment, where settlements were positioned in such a way that invaders or attackers encountered the deadly *zvipukanana* first before reaching the inhabitants, is not just a Southern African phenomenon. The historian and philosopher Lansiné Kaba chronicles a spectacular example from sixteenth-century Mali. It is 1591. The famed empire of Songhai is facing an unprecedented invasion from the forces of the Zargun Pasha of Morocco, who are armed to the teeth with the very latest guns. Songhai’s beleaguered warriors are armed only with bows and arrows and spears. The forces of Songhai lure the Moroccan invaders into “an extremely unhealthy site on the Niger River infested with mosquitoes and tsetse flies.” The war rages until 1595 as exhaustion, thirst, starvation, destitution, and sickness from *mhesvi* and *hutunga* destroy the

horses and decimate the invaders. The Pasha requests six fresh army corps worth of reinforcements, “but they, too, fell victim to Songhai’s attacks and tropical diseases” (Kaba 1981). Morocco wins but is mortally wounded.

Back in Southern Africa we find our fourth example: that of three northbound refugees fleeing from the Zulu king Shaka from the 1820s to 1840s, avoiding the thinly populated Limpopo Valley *mhesvi* belt (Dicke 1932, 794). One group—that of Zwangendaba—blundered into the *mhesvi*-infested Dande-Mutoko-Nyanga-Mudzi-Gorongosa-Tete area south of the Zimbabwe River and the equally heavily infested Luangwa and Shire Valleys north of it—with heavy consequences (Barnes 1951). The Kololo under Sebetwane suffered a similar fate before eventually arriving in the Linyati River-Mapfungautsi plateau area in 1840 and establishing their kingdom near the majestic *Mosi oa Tunya*, but with far fewer herd animals (Ford 1971, 335).

The third group under Mzilikazi was more knowledgeable about *mpukane* (*mhesvi*) presence and chose its routes more wisely. In the 1820s, this Ndebele group migrated north through a chasm between the windward slopes of the uKhahlamba Mountains in the west and the *mpukane*-infested Lebombo Mountains to the east to save their cattle herds from the deadly *mpukane*’s bite (Fuller 1923, 8). The further north they went, the less their knowledge applied. They eventually settled in the western part of *dzimbahwe* after realizing that the presence of *mpukane* was blocking their path north across the Zambezi, but only after severe losses of *inkomo* (or *izinkomo*, as cattle are called in *isindebele*). Mzilikazi had no choice but to settle around what later became *Bulawayo* (the place of the killed). West was the Kgalagadi desert, the northeastern and southeastern fringes bursting with hungry *mpukane* (Dicke 1932, 794). To the east stood the not inconsiderable power of *vedzimbahwe*, as well as the kingdom of Gaza, established by another of the Nguni kings, Manukusa Soshangane. It is from the Gaza that an account of the use of *cordons sanitaire* in the management of *inthesi*, which the locals called *ndedzi*, will later come.

The final example comes from *vedzimbahwe*, caught between the Gaza, Ndebele, and *mhesvi*, who chose to build their settlements on hills rather than retire to the safety of the *mhesvi*-infested lowlands, where they would live but lose their cattle. At least on the highlands, *vedzimbahwe* could spot their enemies from afar, use *moto* (fire) and *hutsi* (smoke) to alert (signal) others, and roll loose rocks on to the clambering attackers (figure 1.1). Altitude ensured that the damp, warmer, and pest-friendly valleys were avoided, except for short durations when *vedzimbahwe* came down in the dry winter to pasture their *zvifufuyo*.



**Figure 1.1**

*Vedzimbabwe's* nineteenth-century practice of building on hilltops to command the view of the country below and deploy light, smoke, and sound as sentinel systems against surprise attack.

Source: *Zambezi Mission Record* 1914.

Further south in the valleys of the Umfolozi and Hluhluwe Rivers, the Zulu successfully kept their cattle safe from *mpukane* through strategic cattle migration and grazing. In summer, they drove their herds into the highlands, returning them to the lowlands in the cold, dry winter. *Mpukane* coming out of *egobolondweni* (*zvikukwa* in *isizulu*; literally, “[that which lives] in the shell”) under cold, wintry conditions did so in a labored way and found it difficult or impossible to transmit *hutachiwana*. Therefore, even if they emerged, *mpukane* were too weak to fly and bite and were virtually harmless. As Burt (1946) and Fairbairn and Watson (1955) showed, the Zulu grazing management system was designed strategically to utilize lowland *idlelo* (pastures) in the season in which *mpukane* was free of *isihlungu* or *igciwane* (*hutachiwana* in *isizulu*), steering clear of them when *mpukane* was infected and deadly.

The Orma of Kenya used the same grazing system, evacuating cattle from the riverine grazing landscape in summer and returning in winter only when it was dry and tree foliage had dropped. Their grazing philosophy held that “when undergrowth and the canopy opened up the habitat of *mhesvi* would shrink and grazing become possible. In the areas such as the delta known to harbor mosquitoes and flies that bite cattle, the Orma burn

the dry cattle dung to create smoke screen for repelling mosquitoes" (Oba 2009, 35). By contrast, *vachena's* land tenure systems were fixed and left no flexibility to deploy flight as a way of avoiding *mhesvi*. This weakness of the extension of *vachena's* enclosure system of individuated property rights is also reflected in the sleeping sickness disaster the Belgian authorities created in the Semliki Valley of Congo (van Hoof 1928).

Those *vanhu* and *zvipfuyo* inhabiting *mhesvi*- and *hutunga*-infested areas for sustained periods acquired physiological defenses or tolerance of *hutchiwana* (i.e., trypanotolerance), which they transmitted to their offspring. Elsewhere in Africa, *mombe* breeds like the Ndama and Muturu (Dwarf Shorthorn) of Nigeria and Ghana, and the Ngoni breeds near Lourenço Marques—both very short—were highly disease resistant owing to long exposure to tropical disease agents, including *mhesvi*, ticks, and varieties of flies (Chandler 1952, 1958). Nobbs (1927, 336) remarked that the *kasiri* of *vedzimbahwe* was, compared to *vachena's* breeds, "more resistant to disease" and suffered "less than improved cattle from redwater and gallsickness, and epizootics appear[ed] sooner to lose their virulence." There is no reason to suggest that this variety of *mombe* had not been "salted" as well through centuries of the gene line's exposure to *mhesvi* bites.

Some people could be carriers of the sleeping sickness trypanosome without expressing any symptoms. This was so in the Zambezi Valley, where "healthy carriers" had existed in high proportion and visitors became infected in places where locals were perfectly healthy (Blair 1939). At different times between 1850 and 1890, Robert Moffat, David Livingstone, John Kirk, and Frederick Courteney Selous traveled along and crossed the Zambezi, and either they or their companions were struck with "fever." It is easy for us as readers to deduce that the fever was malaria; it is always easy to say *hutunga* caused the *nyong'o* (malaria) and killed people while *mhesvi* killed *mhuka*. Yet the fever occurred in what became the epicenters of *gopé* in the twentieth century. Assertions that *gopé* was a new disease in Southern Rhodesia (Fleming 1913) become suspect.

These few opening examples show that people across Africa did not always avoid *mhuka* or live separate from them, but instead learned to coexist with them. Suppression of thicket formation, shifting cultivation, grazing, and controlled late-season burning all were deployed to keep vegetation low and *mhesvi* at bay. To create a *mhesvi*-free zone, people simply hunted all *mhuka* in each area of land separating *sango* from *musha* (village). All *mombe* were banished to one side in summer when *mhesvi* was active, then brought back in winter when *mhesvi* was least active. In times

of drought, these areas became *mafuro* (pastures) of last resort, avoided when seasons were normal.

### **Mhesvi Management Techniques: A Survey**

Whereas *vachena's* control of *mhesvi* was based on *exterminating* the *chipukanana*, that of *vatemala* prior to the coming of *vachena* was based on *managing* it. *Vatemala's* approach was rooted within a deep spiritual ethic toward earth's endowments, not a lack of means of mass destruction (Mavhunga 2014, 23–40).

Edges were generally spaces of exile or refuge. Those defeated in war, running away from succession disputes, or dispossessed of their land were forced into flight. Unless they waged an assault to displace others or found refuge under powerful protectors, these fugitives were forced to *mhesvi*-, *hutunga*-, and drought-infested margins to eke out a challenging existence. The margins between powerful polities were not necessarily no-man's lands. The margin was also a space deliberately left unsettled as security against pestiferous intrusion, so that the deadly predators and *zvipukanana* would destroy or weaken the inhabitants of outlying areas before they reached the king or chief. With that in mind, the following are brief surveys of *ruzivo rwemhesvi* in different societies in the region.

#### **Batswana**

*Vachena* traveling in the upper Limpopo found Batswana using various methods of movement management or traffic control to mitigate the effects of *tsetse* on their herds. One was to travel by night while the *setshidinyana* (insect) was sleeping. In 1877, local Batswana guides told the Englishman Thomas Baines to “leave ... before dark so as to be able to get into a definite track, and yet not so soon as to rush into the fly until it has retired for the night” (Baines 1877, 65–66). He followed that advice and did not suffer molestation from the *setshidinyana*. *Basweu* (*vachena*) like Baines usually arrived in the Southern African winter (starting in May) and hunted until October, when the rains began (and fevers erupted), trees were leafing again (and spotting became difficult), and Batswana leaders enforced the closed season to allow *diphôlôgôlô* (*mhuka*) to breed and replenish. In the hot and humid summer months, *dikgomo* (cattle) grazed in *mafulô* (pastures) in which, barring known riverine fringes, *tsetse* was absent. The rules against taking *dikgomo* into the *diphôlôgôlô*-rich and *tsetse*-infested areas were strictly enforced in summer.

Then, in the dry winter months, as *mafulô* became depleted and crops in the uplands were harvested, *dikgomo* could be systematically driven through tsetse-infested areas to *mafulô* in tsetse-free fields. For this *dikgomo* movement, Batswana counted on the cold nights, while tsetse's body and wings were numb with cold and the passage from *motse* (village) to the winter *dikgomo* posts was safe. The ground frost in late May through to early July made for perfect conditions to move *dikgomo*. Then, in September–October as the rains broke, it was a matter of waiting for the heaviest downpours or a cold day on which to drive the herds back from their winter grazing.

### Batawana

What is now called the Kalahari is *vachena's* corruption of an African name, based on a combination of ignorance and arrogance in pronouncing names *vatemala* had given their neighbors, lands, rivers. Places. "These are the lands of Bakgalagadi," Batswana had told them. *Vachena* could only manage "Kalahari."<sup>1</sup>

On the northern fringes of the Kgalagadi lies Lake Ngami, an *endorheic lake* (a water body that does not flow into the sea) that formed a shallow belt of the Okavango Delta. Ngami fed off the seasonal waters of the Taughe River, tributary of the Okavango. It is one of the fragmented remnants of the ancient Lake Kgalagadi. When Ngami was full, the Taughe flowed east, and when the salt lakes were full, the Taughe flowed west. Being extremely shallow, the salt lakes evaporated quickly, exposing white salt, which *tlou* the elephant, *tau* the lion, *nare* the buffalo, and other *diphôlôgôlô* came to lick, bringing with them tsetse and attracting the hunter's interest.

This is the home of Batawana (the Tawana people), who are named after the cub (*tawana*, from *tau* [lion]). Locals—not just Batawana, but also Bakuba, Basarwa, Mbukushu, and Maxereku—strategically located their settlements in such a way that the unhealthy tsetse- and *monang* (*hutunga*, mosquito)-infested environment became a weapon against invaders; anyone invading their land from the east and south had to deal with these *setshidinyana* first (Holub 1880, 173; Livingston 1851, 23; Ashton 1937, 67).

The swampy conditions and fringe thickets made for good breeding and sheltering for both tsetse and *monang*. As a rule, the locals steered clear of such places filled with pestiferous flies to protect their own lives and those of their *diruiwa* (livestock), preferring instead to build on higher ground. They also seem to have developed natural resistance to the *setshidinyana's* sickening bite, for they lived not far from the lake itself to have access to the fish; *diphôlôgôlô* that came to drink, swim, and cool off in the Ngami's shimmering waters; and farming in rich alluvium of the valleys. In addition

to being accosted by *tsetse* and being a reservoir of *mogare* (pathogens), *nare* the buffalo was also a carrier of bovine pleuropneumonia and bovine tuberculosis. The coughing and pneumonia Livingstone recorded on the shores of Lake Ngami in 1850 suggest this.

Around Lake Ngami, we see the use of night movement as a way of moving *dikgomo* between home and *mafulô* through *tsetse*-infested country. Two sets of *kitsô* (knowledge, knowing) were essential for this movement. The first was an intimate understanding of *tsetse*-infested and *tsetse*-free areas critical to the siting of *motse*, *dikgomo* outposts, and *mafulô*. Batawana knew that *tsetse* lived in the bushes and reeds, rarely in open country; they were not found everywhere, but only in specific spots, seldom shifting habitat. It was thus possible to see *dikgomo* grazing on one side of a *tsetse*-free river or mountain range, even as *tsetse* swarmed on the other side. Second, Batawana had a thorough understanding of *tsetse* mobilities, which enabled them to time their own movement to occur when *tsetse* was immobile and avoid moving when *tsetse* was most mobile and virulent. One British traveler described how Batawana cheated *tsetse* by means of *traffic control*: “Should the natives, who are well acquainted with localities frequented by the fly, have occasion to change their cattle-posts, and are obliged to pass through tracts of country where it exists, they choose, I am told, a moonlit winter’s night, as, during the hours of rest in the cold season, it does not bite” (Anderson 1856, 488–489). However, this was a misrepresentation of *kitsô*; dark nights, not moonlit ones, were effective.

In other words, Batawana had *kitsô* of the physiology of *tsetse* and could manipulate the effects of time and weather conditions on it, moving when those elements rendered the *setshidinyana* immobile. In reverse, they avoided movement of *dikgomo* when time and weather conditions favored *tsetse*. There is *kitsô* there, of strategic deployment—again, without touching the *setshidinyana*, its bloodmeal source, or its habitat—which turned the environment into a pest-management apparatus without touching or modifying it.

### Ndebele

From the 1840s, when the Ndebele settled in the western half of *dzimbahwe*, they did not permit any settlement on the southern border of the Zambezi as a pest-control measure against *mpukane* (*tsetse*), *inyamazana* (forest animals), and *abantu* (people). They saw the river as “their natural frontier of defense against their enemies ... [who] themselves do not settle in that country, in consequence of the bad fevers prevailing all along the

riverbanks” (Pinto 1879, 486). The price the Ndebele paid for their initial ignorance of *mpukane*'s whereabouts is now immortalized in the Ndebele name for Nata River; the circumstance of its naming by the Ndebele was recounted vividly by Robert Moffat in 1854. To put this in context, the Ndebele monarch Mzilikazi ka Matshobane was traveling with a healer or *inyanga*, the king accompanying the priest, heading north to Inyati—toward the Zambezi and into *mpukane* country. Moffat write in his diary on September 6: “Moselekatse yesterday told the Mashona doctor that as we would soon pass all outposts, when sheep and goats would cease, he must return” (Wallis 1976a, 371).

He naively assumed that Mzilikazi was trying to avoid confrontation with the Kololo: far from it. As they reached the Nata River, the priest learned why:

Having passed a village about two miles, we halted beside the river Nate (sic, Nata), or according to the Matabele, *Amatse-a-monyama* (black water, sic *Amatsheomnyama*). ... This is the river along which [Mzilikazi] and a large company descended when he was driven from the Bahurutse country by [Zulu king Dingane's] warriors. It was his determination at the time to have proceeded to the Zambezi, which he intended crossing and taking possession of a new country for himself beyond, but was arrested in his northward career by tsetse. ... He with his company and a great many cattle had no sooner entered the tsetse region when scores died. He instantly saw that advance without them and of course without food, would be impossible, when he commenced a retreat in a direct course to whereabouts he now lives. From their ignorance of the locality of the tsetse, it was some days before they got out from among them. The cattle died ... rapidly. (Wallis 1976a, 371)

After a decade in *dzimbahwe*, the Ndebele king had clearly learned the correlation between the presence and movement of big *inyamazana* and the drift of *mpukane* toward settlements. *Ndlovu* the elephant usually drifted during winter from the very dry Zambezi uplands to the better watered south. *Mpukane* followed. In his October 6, 1854, diary entry, Moffat notes how Mzilikazi addressed the problem: by instituting “game-laws, so that no one but his own people can hunt the elephant” (Wallis 1976a, 375). The Englishman Frederick Courteney Selous (whom *vedzimbahwe* called *Serowe*), hunting in Ndebele country in the 1870s during the reign of Mzilikazi's son and successor, Lobengula, bitterly lamented the king's refusal to allow hunting in mid-April. When finally allowed to hunt in June, he was restricted to an area west of the Gwai (Selous 1881, 55). Not without good reason: Hunting in the Zambezi Valley in 1872, *Serowe* had seen people struck by “fever and ague” and caught it himself. The attacks came only when he stopped and rested a few days (Selous 1893, 294).

Mzilikazi followed a policy called *ukulagisa*, under which those with many *izinkomo* may lend them out to relatives without. These kin keep and manage them in exchange for milking, manure, and draft power. Mzilikazi and later Lobengula had the royal herds driven to valleys along the big rivers for winter grazing. The herders set up temporary *izinkomo* posts, composed of stockades and temporary huts. With the onset of the summer rains, they rounded up their *izinkomo* and shepherded them toward healthier areas (Garlake 1978, 491–492). The *izinkomo* posts were usually located far from *ekhayeni* (villages), in *mpukane*-free areas. Parceling out the herds to kin or subjects located in different districts also insured against losses in the event of contagious diseases, while keeping the infected herds apart and away from *ekhayeni*.

Moreover, the bite of *mpukane* was never avoided completely; people took their *inja*/dogs into *mpukane*-infested areas to gain natural resistance through sustained exposure to bites. The Tonga preferred to mix and dry dead *mpukane* in herbs (leaves or bark), grind the mixture into a fine powder, and then administer it to *izinkomo*, *inja*, and *imbuzi* (goats) orally. *Izinkomo* suffered under *mpukane*'s bite—but not smaller stock. Says Moffat on July 27, 1854: “The scattered inhabitants have abundance of game and are able to keep flocks of sheep and goats, which do not suffer; and it is remarkable that this should be the case, for their hair or wool is thicker than that of other animals, [and] there are about them vulnerable parts which the tsetse can easily reach. Dogs immediately fall victims” (Wallis 1976a, 368; see also Livingstone [1857] 2001, 96).

### **Kololo and Barotse**

In the 1840s, a new force arrived on the upper Zambezi: Bafokeng (Basotho) of chief Sebetwane, who founded the Kololo polity. The Kololo were forced immigrants who headed north after disturbances in the Eastern Cape associated with the rise of the Zulu kingdom under Shaka. They fought their way north through Hurutshe, Kgatla, Ngwaketse, and Batawana country, crossed the Zambezi, and deposed the Barotse dynasties in 1840. In the next decade, Sebetwane repulsed the Zulu and Mzilikazi's Ndebele; in fact, such stubborn resistance and the scourge of *zeze* (their name for *mhesvi*) along the Zambezi discouraged the Ndebele from further northern expansion or migration. In the 1860s, the kingdom Sebetwane had built fell victim to internecine wars, paving the way for Barotse—VaRozvi descendants from *dzimbahwe* under Riwanika (Lewanika)—to retake power. The history of the Ngami-Barotseland area is reasonably well documented (Flint 2003).

*Vachena* traveling in the Kololo's domains in the 1850s talk of a vibrant kingdom that Sebetwane held together despite *zeze* (Selous 1893, 302). David Livingstone and fellow Englishman William Cotton Oswell visited Sebetwane's kingdom in 1851 and found that *zeze* was not found everywhere, but only in particular spots (Oswell 1894). Downstream of the Katima Mulilo bend, the Zambezi passed through rocky terrain and formed a series of rapids and cataracts, the most ferocious being at Kalilabombwe, Nambwe, and Gonye. All through these rapids, the Zambezi's banks were clothed with riverine thickets full of *zeze*. Then, the *zeze*-infested belt ended abruptly as the high banks peeled away from the river toward the north-northwest and north-northeast, forming two parallel plateaus twenty to thirty miles apart. The intermediate space between these two ranges, one hundred miles long, was *zeze*-free and the core of Barotse land (Livingston 1854, 296).

The Kololo and Barotse believed, like their Batawana neighbors in the southwest, that *zeze* could indeed be cheated by moving at night. This was *ngamboto* (a matter of common knowledge) and not necessarily *butalifi* (special expertise)—especially for men, who from childhood were schooled in herding *likomu* (cattle; singular *komu*) and knew that their *likomu* would die if they entered certain areas during the day. Even the most *zeze*-infested places could be “crossed with safety by night if sufficiently narrow to allow of the cattle being driven before sunrise.” In the 1850s to 1860s, *vazungu* (whites) tested this idea during their journeys and “found [it] also correct” (Kirk 1865, 154).

The locals also used *sinuka* (odorous grasses) to enable the safe movement of their *likomu* (a few of them) through *zeze* country in broad daylight. They noticed that *zeze* avoided *limbweletete* (human excrement), especially whenever a homestead had been built in a *zeze* habitat; the insects had withdrawn instead of swarming to the bushes where people relieved themselves or to *likomu* pens. The Kololo smeared each *komu*'s skin with mixtures of *mulaha* (liquid cow dung), *mabisi* (milk), and some medicines before setting off through *zeze*-infested belts. They also burned the roots of a certain shrub underneath the bellies of standing cows, the smoke whiffing and wafting into the skins to act as *sutelezi* (repellent; Kirk 1865, 154; Livingstone [1857] 2001, 82–83).

The Kololo also used other forms of *sutelezi*. For instance, *vazungu* found the locals passing *likomu* through smoke “made from sun-dried cattle dung [*lisu* in *silozī*]. Fires burnt in the cattle kraals during the nights generated a very strong smell from which the cattle received a certain degree of protection” (Kjekshus [1977] 1996, 54). Among the local Kololo of the upper

Zambezi, in 1857 Livingstone observed: “The well-known disgust which the tsetse shows to animal excreta, as exhibited when a village is placed in its habitat, has been observed and turned to account by some of the [witch] doctors. They mix droppings of animals, human milk, and some medicines together, and smear the animals that are about to pass through a tsetse district; but this, though it proves a preventive at the time, is not permanent” (Livingstone [1857] 2001, 96). Of course it was never meant to be!

Ten years later, another *muchena*, Benjamin Bradshaw, remarked that *zeze* did not stay long in a camp after *mulilo* (fire) was lit, even though they would be everywhere beyond it. When “much troubled” by them in camp, the local guide told him: “Make a fire and they will go away.” About which, Bradshaw admitted, “I found the experiment to succeed” (Bradshaw 1877–1878, 52). The reference to an “experiment” was a way of claiming scientific credentials among his Royal Geographical Society audience of naturalists. The real scientist was the African practitioner!

### Korekore

Further down the Zambezi, in the area between the Batoka and Kariva gorges and their frontage from Lupane through Gokwe to Hurungwe and Guruve, the use of *manhuwe* (repellents) was quite pronounced among the Korekore people. They used *zumbani*, *sumba* (both indigenous mints), *mungezi*, and *mubhubhunu* as *manhuwe* against *mhesvi* and *hutunga* (Kazembe and Nkomo 2010; Gudhlanga and Makaudze 2012, 75–76). These were rubbed on the skin to repel the *chipukanana* as it landed, applied as internal medicine against *gopé* (sleeping sickness) and *nyong’o* (malaria), and used as a fumigant. After internal treatment, hot charcoals were placed in a small potsherd, over which the dry roots (or powders thereof) were placed. The smoldering potsherd was then put underneath the standing cow for it to be soaked in *manhuwe* and provide an anti-*mhesvi* deterrent to further bites.

The procedure was continued over several weeks, for as long as the symptoms of poisoning remained, and terminated once they were gone. Of course, not all bitten *mombe* would live, but the ingested medicine was deemed to build immunity in the event of future *mhesvi* attacks. The *manhuwe* was intended to see the herds safely through a *mhesvi*-infested belt (C. Livingstone 1861–1862, 34). The roots and leaves of *muvengehonye* (literally, “the maggot hater”) were crushed and smeared around a kill site when skinning a carcass so as to repel flies (especially *mhesvi*) that secrete maggots into meat.<sup>2</sup>

### Tokaleya

We have already seen how settlement choice enabled people to manage *mhesvi* by avoiding it. A classic example is found in the area surrounding *Mosi oa Tunya* (The Smoke that Thunders, which *vachena* called Victoria Falls), home to two interrelated people: the Toka or Batoka, and the Leya or Baleya, who speak *chitonga*. It is after the former that the Batoka Gorge downstream of the falls is named. The people living near the gorge settled there because of its elevated lands, a fine healthy climate, and a vantage point from which to defend themselves against both pestiferous *vanhu* and *zvipukanana*. Here, fever (*n'gana* and *nyong'o*) was unknown, large herds of *mombe* "furnished an abundance of milk," and "the rich soil largely repaid the labour of the husbandman" (C. Livingstone 1861–1862, 32).

Living in an area surrounded by *mhesvi* to the southwest, south, and east, Batoka (and their neighbors the Nanzva, under Chief Hwange, VaRozvi emigrants from the south) developed a number of stratagems to deal with the pest. These communities, living between the Gwai and Deka rivers, had through their close settlements and cattle grazing maintained a *mhesvi*-free space. The Ndebele raids pushed them across the Zambezi, leaving the country uninhabited: "Overrun with game, [the area had] become one of the great strongholds of tsetse, extending from the Zambesi river for at least 60 or 70 miles in a southerly direction" (Bradshaw 1877–1878, 52).

As Bradshaw observed, one remedy for *mhesvi*-struck cattle among the locals was a mixture of herbs and dead *mhesvi*, which they used as an inoculant. The first ingredient was the dried root of an unidentified plant. The second was composed of a dozen or so *mhesvi*, which also were dried. Some of the dried roots were then mixed with the *mhesvi*, the mixture being ground together into a fine powder. The mouth of the cow was forced open so that the mixture could be administered internally. Inoculation extended to other *zvipfuyo*. Dogs and *mbudzi* also gained natural resistance to *mhesvi* bites through living through and being exposed to continued attacks. Either they were taken into *mhesvi* country and exposed, or *mhesvi* were caught, brought home, and fed to *zvipfuyo*. Batoka caught *mhesvi* by "slipping the blade of a knife or edge of an assegai on their legs and then, turning it carefully over, crush[ing] them beneath it" (Bradshaw 1877–1878, 52). Any stock brought in suddenly from outside of *mhesvi*-infested areas usually died within days. Subsequent generations acquired immunity from their parents, even if a few died after birth (Selous 1881, 131). It is possible that Batoka, like other peoples, also extended these traditions of inoculation to deal with the smallpox outbreak, as reported in the Gaza and

other cases (e.g., Junod 1918; Gelfand 1964; Herbert 1975; Apffel-Marglin 1990).

### Guruve, Dande, and Beyond

Inoculation was a widespread practice in the eastern and southeastern areas of Dande, Mutoko, and Gorongosa, all areas inhabited by *vedzimbahwe*. In the Limpopo Valley, Mauch observed the practice of inoculation as the only remedy against *mhesvi* in 1868:

Only one remedy appears to help which rests on the “homeopathical” principle. The actual fly, taken internally, renders the stings innocuous, as I experienced with a dog that, after such a treatment, I took along with me to the lowest part of the Zambesi and which I sent back with my companions in a completely healthy condition. In 1868, when I had an ox, a female donkey and a dog with me and experimented with dissolved ammonia, the ox and the dog perished, while the female donkey, to which I had not applied the mixture of this salt, [survived]. (Bernhard 1971, 233)

As this example shows, these local stratagems inspired traveling *vachena* to also embark on their own experiments—with mixed results.

In the northeastern parts of *dzimbahwe*, the *mhesvi*-infested belt stretched from Guruve to Centenary, Muzarabani, Rushinga, southeast through Mazowe, Mutoko, Mudzi, Nyanga, and east through the Gorongosa mountains, all the way to Mutarara. Here as elsewhere, *mhesvi* was not just a target of medication but an ingredient in the medicine against *gopé* and *n'gana*. In northern Nyanga, it is not men but women who are mentioned in Montagu Kerr's account: drying quantities of *mhesvi*, pulverizing them with bark of a certain unnamed root, then mixing the contents in water, which they then fed their *makwayi* (sheep), *mbudzi* (goats), and *imbwa* (dogs) through the mouth. *Mombe* did not survive here even with this medicine (Kerr 1886a, 74; Kerr 1886b, 33). Edward Maund's narrative is not specific about which *vedzimbahwe* or what specific area, but in 1891 he observed that “the Mashonas dry and pound the fly, and give it to their dogs, a fly a day, as a safeguard against the effect of tsetse” (Maund 1890, 653; 1891, 12).

### Gaza

Charles Swynnerton was twenty-three when he arrived at Gungunyana Farm, abutting Chirinda Forest in Chipinge, to begin his new job as a farm manager in 1900. (For map orientation in this entire section, see figure 1.2). For the next two decades, he undertook studies of the local *svifufunhunhu* (insects) and *sviharhi* (animals), tapping into the *vutivi* (knowledge)

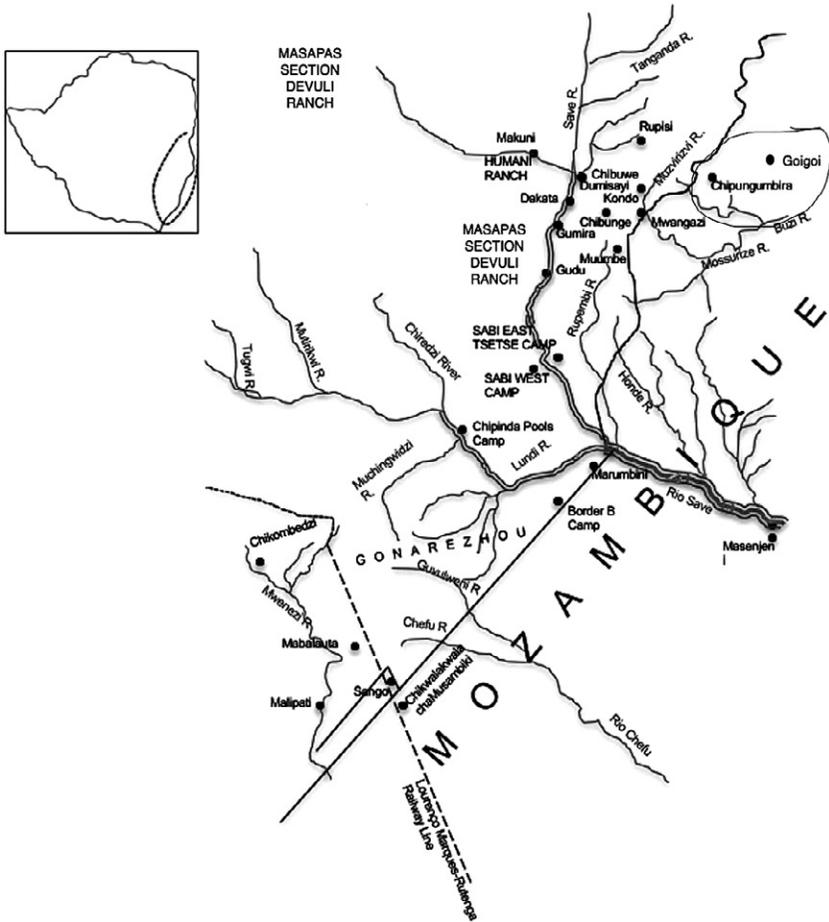


Figure 1.2

The southeastern *ndedzi* belt, showing the general area east of the Muzvirivzi and, later, the southeastern *ndedzi* area of the Savé-Runde, Guvulweni, and Rio Savé. Source: Author.

of local Tshangana, Ndaou, and Tsonga people (Marshall 1938).<sup>3</sup> He was told how Gaza king Mzila had set about combining game elimination, forest clearance, and prophylactic settlement to deal with *ndedzi* (*mhesvi*) and was able to keep *tihomu* (cattle) within a fly belt. This is Swynnerton's account:

From Gandwa, Umzila sent an order to "*sondela enkosini*" (draw near to the King). Thereupon an immense compulsory movement of the population took place. The

country to the east of the Sitatonga Hills, particularly in and south of Gunye's, was at that time more fully populated than that to their west, but almost the whole of this population was deported, territorial chiefs and all, to the lower parts of the tract between the Sitatongas and the present British border, to Spungabera [*sic*; Chipungumbira] and Gwenzi's country, and, to the Umswirizwi [*sic*; Muzvirizvi] Valley, to Sinjumbo's Hills and Chimbeya's, and even eventually to the Sabi [*sic*; Savé] east of this area. (Swynnerton 1921a, 315)

According to Swynnerton, *sondela enkosini* was not meant to address only the problem of *ndedzi* and would have happened regardless of its presence. What is important about it is not its purpose or intentionality, he says, but the effects on *ndedzi*, according to surviving subjects of the Gaza king. Mzila maintained three large *tihomu* herds at Umpombo's, at Dongonda, and west of the Sitatongas. There is no doubt that the *ndedzi* problem—in addition to security needed due to surprise attacks from his brother and challenger to the throne Mawewe's still-fighting troops—was a primary concern.

To be clear, forest clearance was not the only strategy the Gaza were using. Like other neighboring peoples, they also fed dead *ndedzi* to *timbyana* (dogs) and *timbuti* (goats). Nor was such a practice limited to *ndedzi* or *sviharhi*, as we saw earlier in other communities. However, the logic of clearing a portion of forest was to draw a clear boundary and buffer zone between these *tihomu* and *sviharhi*, a project that marauding *nghala*/lions tested time and again when attacking the settlements. Water was also a problem, as was the feud between Chiefs Makuyana and Gogoi, subordinates to the Gaza. Regardless, Mzila heavily settled the buffer zone and suppressed any recovery or intrusions inside it through regular hunts (Swynnerton 1921a, 335).

Bush clearing, whether on its own or followed by settlement, deprived *ndedzi* of its habitat and cover from predators. Tree felling itself was a process of applying technology, with its many tools—not least *xihloka* (axe), composed of a blade fixed to a wooden handle. *Svihloka* (plural of *xihloka*) were themselves products of two industrial processes: First, that of turning earth into metal, and metal into blade, depended on skilled, well-reasoned manipulations and syntheses of air, ore, and fire; there was nothing accidental there at all. The *démó* (blade) was made from iron mined in the mountains and underground, smelted in the *svindlu svasvifuri* (forge), and finished with the *svigalanyundzu* (hammer) and *ndzilo* (fire) of *svifuri* (smiths). The wooden handle was the handiwork of *muvatli* (carpenter or sculptor; anyone except small children and women could be one); it required thorough *vutivi* of specific trees with hard wood resistant to cracking and boring *svifufunhunhu*.

Felling was not a haphazard process. If intending to destroy the tree for good, it was cut in such a way that the stump was left flat-topped. If intending the tree to regenerate shoots, the stump was cut at a thatch-roof elevation (or the white man's 45° angle). The bush generally regenerated very slowly over many years, while clearance followed by settlement gave permanent protection from reinvasion, if the area was large enough.<sup>4</sup> The effect on wooding was profound: Bush vanished, leaving bare country, save for the concentrated *tiko* (village) and gardens. The measure was confined to the lowveld; toward the hilly areas of the Pwizizi and Mtshanedzi rivers, the bush was not completely cleared, but was "surrounded on three sides by a broad cleared cordon, and on the other, backed by the highlands" (Swynnerton 1921a, 333). Beyond the Mtshanedzi and Budzi (Busi) neighborhoods, the buffer zone Mzila created "remained completely uninhabited and uncleared." The Zinyumbo and Gogoi areas were completely cleared right up to Mwangazi, Gwenzi's country, the Muzvirizvi River Valley, and portions of the Savé, which were populated with gardens (333).

The effect on *sviharhi*, carriers of *ndedzi*, was thorough:

Large mammals became very scarce—not merely big game, but pigs and baboons. ... Drives with nets were organized across the entire country, and game, pigs and baboons were thus killed wholesale. If a herd of buffalos was reported subsequently anywhere west of the Sitatongas, it was at once hunted; if pigs appeared in a garden, they were at once tracked down to their retreat ... and killed. Except on its fringes the "Oblong" ... was a great uninhabited game reserve. The game in it was thinned, it is true, and was kept well driven within its borders, but there still remained enough to attract ... hunting parties. In the heavily settled areas a few bushbucks, duikers and pigs were still to be found throughout the period. (Swynnerton 1921a, 333)

It was a very thorough clearance. The overall effect was such that *ndedzi* and bigger *sviharhi* could not cross where they were not wanted.

*Tihomu* (cattle) were absolutely banned from the cleared areas; any required for ceremonial slaughter were brought in from safe areas as needed. Countless attempts to introduce them in Gunye's country and south of the Budzi from the Mwangazi eastward resulted in losses, the numbers lost being replenished from the safe areas and through raiding *vedzimbahwe*, who called the Gaza *madzviti* (pillagers). *Tihomu* thrived in Zinyumbo's hills, on the Mwangazi, along the Muzvirizvi and toward Chipungumbira. In the Gogoi-Makuyana stretch, people kept *tihomu* "right under the Sitatongas both at and opposite the Rupisi and from the great bend of the Mtshanedzi to its source, also in the hills behind the cleared guard-area between the Mtshanedzi and Pwizizi and up to and beyond [what later became] the ... British border" (334; also Dube 2009).

On the Savé, elders who had participated in *sondela enkosini* told Swynnerton:

This had previously constituted a separate fly-belt, which was eventually almost completely wiped out by native cultivation. The rinderpest ... may have given the *coup de grace* to the surviving remnant or two ... but at any rate cattle were already being placed and kept successfully all over the old fly area in the seven years between Gungunyana's [*sic*; Ngungunyana's] departure ... and the advent of the rinderpest. ... When the country was closely settled, cattle were kept successfully in places where they had always died before; and when the settlement was well established, they succeeded where in its earlier days they failed, though fluctuations still took place with successive shifting of the population. It is true that herds actually abutting on the fly still suffered small and occasional losses, as they are doing today to a greater extent on the present fly boundary. (Swynnerton 1921a, 334)

With the withdrawal of Ngungunyana to Bileni in 1889, *nhoveni* (forest) returned, and so did *ndedzi* (Selous 1893, 304; Millais 1895, 142–143). This story has echoes in Kjekshus ([1977] 1996). The difference is that the physical infrastructure died because of *valungu's* (whites') regimes of ecological management, but the ideas that undergirded it did not. What happened to them?

