

GLAND-FEELERS AT LARGE: MEDICAL AUXILIARIES AND THE NEGOTIATION OF PUBLIC HEALTH IN COLONIAL NORTHWESTERN TANZANIA

Sometime in the first years of the twentieth century, a disease called variously *botongo*, *isimagira*, *sleeping sickness*, or *ugonjwa wa malale*, came to the Haya kingdom of Kiziba on the western edge of Lake Victoria.¹ People began to die after wasting into extreme thinness and falling into a nodding, impenetrable sleep; those who fell sick were primarily people who traveled to trade, work, and farm in Buganda, to the north. Around the lake, African elites, German colonial officials, Francophone Catholic missionaries, Anglophone Protestant missionaries, international research expeditions, and a few scattered ethnographers documented the arrival of this sickness, new in its proportions and severity or, perhaps, wholly new in its local presence. Decades later, Ziba political elites and Protestant lay leaders once again recounted the disease in memoirs, focusing on its impact on political life and personal fortunes. And a century later, middle-aged and elderly inhabitants of the countryside around the present-day village of Kigarama remembered the sickness by the footprint that colonial prevention measures had left on the landscape. Sleeping sickness served as a light touchstone for discussing the area's colonial history and past misfortune – a point in the distant past not of great relevance to daily life nearby the border between Tanzania and Uganda.

Sleeping sickness does not present a pressing threat to the health of Tanzanians living on the western lakeshore today, but it was of signal importance as an engine of change before World War I. Efforts to identify the disease and control its spread preoccupied African and colonial authorities alike, leading to extensive interventions into daily life. In Kiziba, the key manifestations of German colonial and Ziba royal efforts to cope with illness and death were the sleeping sickness camp near the village of Kigarama and the group of young Ziba men deployed from the camp as “gland-feelers,” medical auxiliaries tasked with finding suspected cases of sleeping sickness. The changing fortunes of the sleeping sickness campaign shed light on how widespread illness and colonial public health interventions meshed with political, social, and economic change in Kiziba. The history of the advent, success, and then withdrawal of gland-feelers from the field in Kiziba illustrates how African auxiliaries influenced sleeping sickness control and prevention measures. Analyzing the Ziba medical auxiliaries in their overlapping social and occupation contexts – as colonial functionaries, royal emissaries, and familiar local men – sharpens our picture of how the wider population made use of these new interventions to engage with or avoid royal and colonial power alike. Gland-feelers at work in the German sleeping sickness campaign ultimately exacerbated the problems that they were supposed to solve, troubling both relations between people and their king and between Ziba of all ranks and German colonial authorities.

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¹ “Haya” refers to a ethno-cultural and linguistic group in northwestern Tanzania, of which Buhaya is the territory and Ruhaya (or alternately Oluhaya or Kihaya) is the language. Kiziba is one of 6 Haya kingdoms that survived into the twentieth century, and I use “Ziba” to refer to the people of that kingdom.

This article examines the history of the sleeping sickness camp at Kigarama and Ziba gland-feelers deployed from it during the life of the camp between 1907 and 1913. It explores the circumstances within which the cohort of gland-feelers emerged, discussing first the regional dynamic of migration and disease that shaped sleeping sickness epidemiology and then the impact of this dynamic on the kingdom of Kiziba specifically. Turning to Ziba medical auxiliaries, it follows their recruitment, training, and early deployment into the countryside around the sleeping sickness camp and locates this cohort of men in historical institutions of royal power and social organization such as the *muteko* age-sets. Finally, it examines trouble in the gland-feelers' field of activity as their searches for suspected cases of disease became less fruitful and as assessments of German sleeping sickness interventions changed. Gland-feelers tested Ziba communities' tolerance for colonial public health interventions and new economic exchanges centered around cash for the discovery and delivery of people infected with sleeping sickness.

This history of Ziba medical auxiliaries working in the German anti-sleeping sickness campaign draws together histories of health and social change in Africa. It builds upon path-breaking work that connected the expansion of sleeping sickness to colonial incursion and highlighted how responses to new epidemics helped to accelerate the reach of European empires into sub-Saharan Africa.² It sharpens the focus of historical and anthropological analyses of colonial interventions oriented around sleeping sickness, as it follows a small cohort of actors in a specific field of activity – one kingdom – rather than taking the colony or region as a unit of analysis. Sleeping sickness epidemics and efforts to prevent them were instrumental in the expansion of colonial administration and to the alteration of African agricultural and commercial practices. Examining the advent and deployment of Ziba gland-feelers and the controversies surrounding their work provides a lens through which altered political and economic relationships in Kiziba can be more clearly viewed. This angle on the dynamism of early colonial relationships provides a point of comparison for studies of interventions into agriculture, marketing, governance and education in Buhaya.³ Focusing as well on the local dynamics that fostered or constrained auxiliaries' participation, this article sets auxiliary labor in its social and political context in Kiziba and in comparison with nearby interlacustrine societies.⁴

² M. Lyons, *The Colonial Disease: a Social History of Sleeping Sickness in Northern Zaire, 1900-1940*, (Cambridge, 1992); M. Lyons, "Sleeping sickness, colonial medicine and imperialism: some connections in the Belgian Congo," in R. Macleod and M. Lewis, *Disease, Medicine, and Empire: Perspectives on Western Medicine and the Experience of European Expansion*, (London, 1988); Lyons, "The Power to Heal: African auxiliaries in colonial Belgian Congo and Uganda," in D. Engels and S. Marks, eds., *Contesting Colonial Hegemony: State and Society in Africa and India*, (London, 1994); N.R. Hunt, *A Colonial Lexicon of Birth Ritual, Medicalization, and Mobility in the Congo* (Durham, NC, 1999), 92-96; J. Vansina, *Being Colonized: the Kuba experience in rural Congo, 1880-1960* (Madison, 2010), chapter 5; M. C. Musambachime, "The Social and Economic Effects of Sleeping Sickness in Mweru-Luapula 1906-1922," *African Economic History* 10 (1981), 151-173.

³ F. X. Lwamgira, *Amakuru ga Kiziba; The History of Kiziba and its Kings*, (Translated by E.R. Kamuhangire, Makerere College, 1969); R. Austen, *Northwest Tanzania Under German and British Rule: Colonial Policy and Tribal Politics, 1889-1939*, (New Haven, 1968); J. Iliffe, *Tanganyika under German rule, 1905-1912*, (Cambridge, 1969); Iliffe, *A Modern History of Tanganyika*, (Cambridge, 1979); Brad Weiss, *Sacred Trees, Bitter Harvests: Globalizing Coffee in Northwest Tanzania*, (Portsmouth, NH, 2003); Weiss, *The Making and Unmaking of the Haya Lived World: Consumption, Commoditization, and Everyday Practice*, (Durham, NC, 1996); P. R. Schmidt, *Historical Archaeology: a Structural Approach in an African Culture* (Westport, CT, 1978); K. Curtis, "Capitalism fettered: state, merchant, and peasant in Northwestern Tanzania," (Unpublished PhD thesis, University of Wisconsin, Madison, 1989); P. Reining, "The Haya: the agrarian system of a sedentary people," (Unpublished PhD thesis, University of Chicago, 1967); M.P. Kilaini, *The Catholic Evangelization of Kagera in North-West Tanzania: the Pioneer Period, 1892-1912*, (PhD thesis, Pontifical Gregorian University, 1990).

⁴ D. Schoenbrun, *A Green Place, a Good Place: Agrarian Change, Gender, and Social Identity in the Great Lakes Region to the 15th Century*, (Portsmouth, NH, 1998); Schoenbrun, "Cattle Herds and Banana Gardens: The

Historically, African *askaris* (soldiers), porters, assistants, cooks, fly-catchers, and local chiefs were indispensable to sleeping sickness research expeditions and continued as crucial participants in sleeping sickness campaigns. Across colonial Africa, African research assistants influenced research agendas and shaped research outcomes, particularly when hired as translators or guides, desired for their knowledge of the local environment or population. Auxiliaries took advantage of opportunities for social and economic mobility, education, and the enlargement of their own circles of influence in the course of their work for missionaries, researchers, and administrators. This article connects with a dynamic literature that has examined the role of Africans as intermediaries, as cultural brokers, and as colonial professionals. Studies of intermediaries at work as nurses, clerks, and interpreters have revealed their centrality to the functioning of colonial governance and religious missions, but also how these figures remained problematic figures with agendas of their own.⁵ The history of African auxiliaries and assistants involved in colonial research projects has also illuminated the social production and construction of knowledge in – and about – Africa, the importance of research relationships, and the consequences of research encounters for African societies.⁶ The gland-feelers at the center of this article also fit into the history of ongoing processes of professionalization, mirrored by continuing marginalization, of Africans working within colonial administrations.⁷

SLEEPING SICKNESS IN EARLY 20TH CENTURY EAST AFRICA

Sleeping sickness was one among several waves of illness that swept across East Africa at the turn of the century and one among many changes for African communities in the Great Lakes region.⁸ It is a complex disease caused by an infection with a trypanosome parasite (*Trypanosoma brucei rhodesiense* or *Trypanosoma brucei gambiense*) and spread by the bite of the tsetse fly (*Glossina palpalis* or *morsitans*). Affecting the lymphatic and central nervous systems, sleeping sickness is fatal if left untreated and draws its name from the persistent sleepiness and inability to be woken that precedes death in advanced cases. Illness can last anywhere from a few months to several years; this variability continues to engage scientists in understanding

Historical Geography of the Western Great Lakes Region, ca. AD 800-1500," *The African Archaeological Review*, 11 (1993), 39-72; Schoenbrun, "Conjuring the Modern: Durability and rupture in histories of public healing between the great lakes of East Africa," *American Historical Review* 111, 5 (2006), 1403-39; Jean-Pierre Chrétien, *The Great Lakes of Africa: Two Thousand Years of History*, (New York, 2003); Iris Berger, *Religion and Resistance: East African Kingdoms in the Precolonial Period* (Tervuren, 1981); Christopher Wrigley, *Kingship and State: the Buganda dynasty*, (Cambridge, 1996); Holly Hanson, *Landed Obligation: the practice of power in Buganda*, (Portsmouth, NH, 2003); Neil Kodesh, *Beyond the Royal Gaze: Clanship and Public Healing in Buganda*, (Charlottesville, 2010); Richard J. Reid, *Political Power in Pre-colonial Buganda: economy, society & warfare in the nineteenth century*, (Oxford, 2002).

⁵ Hunt, *A Colonial Lexicon*; E.L. Osborne, "'Circle of Iron': African Colonial Employees and the Interpretation of Colonial Rule in French West Africa" *Journal of African History* 44,1 (2003), 29-50; B.N. Lawrance, E.L. Osborn, and R. L. Roberts, "Introduction," to *Intermediaries, Interpreters, and Clerks: African Employees in the Making of Colonial Africa* (Madison, 2006); M. Hokkanen, "Towards a Cultural History of Medicine(s) in Colonial Central Africa," in A. Digby, W. Ernst and P. B. Mukharji, *Crossing Colonial Historiographies: Histories of Colonial and Indigenous Medicines in Transnational Perspective* (Newcastle upon Tyne, 2010), 143-164.

⁶ N. Jacobs, "The Intimate Politics of Ornithology in Colonial Africa," *Comparative Studies in Society and History* 48, no. 3 (2006), 564-603; Lyn Schumaker, *Africanizing Anthropology: Fieldwork, Networks, and the Making of Cultural Knowledge in Central Africa*, (Durham, NC, 2001).

⁷ J. Iliffe, *East African Doctors: a History of the Modern Profession*, (Cambridge, 1998); Lawrance, Osborn, and Roberts, *Intermediaries*.

⁸ J. Giblin, "The Precolonial Politics of Disease Control," in G. Maddox, J. Giblin, and I. N. Kimambo, eds., *Custodians of the Land: Ecology and Culture in the History of Tanzania* (Athens, OH, 1996), 127-151; Iliffe, *Modern History of Tanganyika*, chapter 5.

how the parasite affects the human body and the central nervous system. Sleeping sickness is the human form of a parasitic infection that also strikes livestock, and the pathological form of an apparently symbiotic relationship between similar parasites and a wide variety of non-domesticated animals in sub-Saharan Africa.⁹ Scattered instances of sleeping sickness in West and Central Africa dating from at least the eighteenth century accelerated into full-fledged epidemics in the late nineteenth century, exacerbated by successive waves of famine and epidemic disease – as well as epizootics affecting livestock – that preceded them.¹⁰ Sleeping sickness struck populations ranging from Senegambia in West Africa to the Zambezi watershed in southern Africa, and into the Great Lakes region and Nile valley in East Africa. Its spread was intimately linked with widening European colonial incursions and resulting disruption of social, environmental, and ecological balances that African communities had developed to keep the disease in check.¹¹ Though it was likely known as an illness in the pre-colonial period, early twentieth century epidemics of sleeping sickness appear to have been new in their scope and scale; African communities pointedly recognized them as such.¹² In the former Belgian Congo, where some 500,000 people are estimated to have died from the late 1890s to the 1920s, sleeping sickness came to be known as the “colonial disease,” connected to colonial labor regimes, resource extraction, and violence.¹³

At Lake Victoria, the epidemic killed between 250,000 and 300,000 people between 1901 and 1920, primarily on the northern arc of the lakeshore.¹⁴ Catastrophic mortality struck the kingdoms of Buganda and Busoga, recently incorporated into Britain’s Uganda Protectorate, but death and disease did not fall evenly on all communities around the lake. Ultimately, German-claimed areas on the southern arc of the lakeshore never experienced a widely distributed and devastating epidemic, for reasons still under debate. But any such difference in impact was beyond consideration after 1901, when British missionaries first recognized the disease. As cases mounted in the coming years, sleeping sickness seemed to know no limit, except the limitations of the tsetse fly vector’s range and habitat. Sleeping sickness quickly became a top priority for German and British colonial administrations in East Africa and tropical medicine doctors alike. The disease grabbed the headlines in Europe, and the attention of colonial administrations and scientists alike due to its novelty, the potential for a prestigious scientific discovery, the disease’s danger and apparent incurability, and the possibility of bringing Central and East African colonial ventures to a standstill. Sleeping sickness mortality threatened potential pools of African labor and the larger project of colonial development and extraction of resources.¹⁵ Campaigns against the disease that dominated colonial medical

⁹ C. Burri and R. Brun, “Human African Trypanosomiasis,” in G. C. Cook and A. I. Zumla, eds., *Manson’s Tropical Diseases* (London, 2003); M. Malowany, “Unfinished Agendas: Writing the History of Medicine of Sub-Saharan Africa,” *African Affairs* 99 (2000), 330-35.

¹⁰ J. Ford, *The Role of Trypanosomiasis in African Ecology: A Study of the Tsetse-fly Problem*, (Oxford, 1971); John McKenzie, “Experts and Amateurs: Tsetse, Nagana and Sleeping Sickness in East and Central Africa,” in John MacKenzie, ed. *Imperialism and the Natural World* (New York, 1990).

¹¹ Lyons, *The Colonial Disease*; R. Headrick and D. R. Headrick, *Colonialism, Health and Illness in French Equatorial Africa, 1885-1935*, (Atlanta, 1994); K.A. Hoppe, *Lords of the Fly: Sleeping Sickness Control in British Uganda, 1900-1960*, (Westport, CT, 2003); H. Kjekshus, *Ecology Control and Economic Development in East African History: The Case of Tanganyika, 1850-1950*, (Athens, OH, 1996).

¹² D. Steverding, “The history of African trypanosomiasis,” *Parasites & Vectors* (2008), 1, 3; E.M. Fèvre et al., “Reanalyzing the 1900–1920 Sleeping Sickness Epidemic in Uganda,” *Emerging Infectious Diseases* 10, 4 (2004), 567-593.

¹³ M. Lyons, “African Trypanosomiasis,” in K. Kiple and K. Ornelas, *Cambridge World History of Human Disease* (Cambridge, 1993), 556; Lyons, *The Colonial Disease*.

¹⁴ Lyons, “African Trypanosomiasis,” 556; Hoppe, *Lords of the Fly*, 27; Malowany, “Unfinished Agendas,” 331. Figures for the Congo River basin estimate 500,000 people dead.

¹⁵ M. Lyons, “Sleeping sickness, colonial medicine and imperialism: some connections in the Belgian Congo,” in R. Macleod and M. Lewis, *Disease, Medicine, and Empire: Perspectives on Western Medicine and the Experience of European Expansion*, (London, 1988), 245; J. Koponen, *Development for Exploitation: German colonial policies in Mainland Tanzania, 1884-1914*, (Hamburg, 1994), 245.

interventions for much of the first half of the twentieth century signaled a shift in the energies of colonial public health. Deborah Neill, after Lyons, has recently argued that colonial responses to sleeping sickness constituted the first instance where African health came to the forefront of public health measures in sub-Saharan African colonies, representing a turning point in colonial medicine.¹⁶

As illness appeared to increase, African and colonial political authorities around Lake Victoria responded. But colonial public health campaigns were as diverse as the populations and ecologies in the massive territories they aimed to survey. In areas where flies existed to transmit the disease, such as Buganda, Busoga, or the Sese Islands, draconian measures of depopulation, restrictions on travel and use of the lakeshore, or confinement into camps were implemented. Centralized British colonial policies emphasized separation of humans and flies, as colonial officials chose their overlapping settlements and habitats as the primary space for intervention; areas designated as “infected” were marked for depopulation.¹⁷ Elsewhere – particularly where the range and behavior of fly vectors had not been firmly established – prevention measures continued to develop and the targets of intervention shifted. The German sleeping sickness campaign in modern-day Tanzania and Burundi took a multi-pronged approach. This approach, laid out by Robert Koch at the end of his sleeping sickness expedition in 1907, fit into a developing set of standard practices to combat sleeping sickness across colonial Africa.¹⁸ Koch outlined measures for the removal and resettlement of African communities to fly-free areas, the use of isolation stations (camps where people would also be given drugs to treat the disease and isolated from tsetse fly vectors), and the closing of colonial borders with regions with sleeping sickness to limit contact between infected and non-infected populations.¹⁹

Further measures aimed at the disease in the African environment included clearing fly habitats of vegetation and destroying any potential animal reservoirs of trypanosomes.²⁰ Prevention measures required an accurate sense of the incidence and prevalence of the disease, relying on a combination of clinical observation and, ideally, microscopic confirmation that the causative trypanosome parasite circulated in a given human host. But diagnosing sleeping sickness was difficult, given the complexity of the body’s response to the trypanosome and the parasite’s own life cycle, in addition to the ad hoc research circumstances in which many colonial scientists still worked in the early 1900s. Often, doctors and health officers defaulted to relying on a historically known, if hardly foolproof, measure of illness – characteristically swollen cervical lymph nodes, known as “Winterbottom’s sign.”²¹ In the early twentieth century, many believed that observing Winterbottom’s sign on a person, perhaps palpating glands on his or her neck, might allow the identification of people in the early stages of disease who did not yet show the telltale signs of sleepiness or neurological disorder. Once diagnosed, however, no effective, curative drug was available in this era, although colonial doctors liberally dispensed a variety of drugs and chemicals to African patients to suppress symptoms or attempt a cure.

African authorities responded to illness and death in ways that paralleled colonial efforts to limit the spread of sleeping sickness. The activities of healers or political leaders enter into the colonial archive during moments of connection with colonial medical services, typically

¹⁶ D. Neill, *Networks in Tropical Medicine: Internationalism, Colonialism, and the Rise of a Medical Specialty, 1890-1930*, (Stanford, CA, 2012); Lyons, “African Trypanosomiasis.”

¹⁷ M. Worboys, “The comparative history of sleeping sickness in East and Central Africa,” *History of Science* 23 (1990), 89-102; Hoppe, *Lords of the Fly*.

¹⁸ Bundesarchiv, Berlin Lichterfelde (BArch), R1001/5896, R. Koch, “Bericht über die Tätigkeit der Schlafkrankheits-Expedition bis zum 5. September 1907,” 5 Sep 1907.

¹⁹ BArch R 1001/5897, Bethmann-Hollweg to Kaiser Wilhelm II, Summary Report, 23 Jan. 1908.

²⁰ BArch R1001/5876, “Aufzeichnung über die Sitzung des Reichsgesundheits-rats (Ausschuß für Schiffs- und Tropenhygiene und Unterausschuß für Cholera),” 18 Nov. 1907, 10.

²¹ Swollen cervical glands were known at the time as Winterbottom’s sign. C. Burri and R. Brun “Human African Trypanosomiasis,” 1317.

noted when kings or chiefs notified colonial authorities of sick or dying people among their subjects, collaborated in public health interventions, or, in the case of healers, offered a form of healing seen to compete with colonial biomedicine. Early twentieth century Ziba inherited a system of healing and religious practice that involved royal authority, clan networks, and *kubandwa* societies.²² In Kiziba, power rested chiefly with the divinely invested and recently enthroned *mukama* Mutahangarwa, who ruled through a network of ministers, district chiefs, and village elders.²³ Patrilineal clans were an important element of the social and political structure there as in other interlacustrine kingdoms; here, too, clan shrines and their ancestral spirits, as well as *kubandwa* societies of healers, overlapped and were consulted for matters of public healing as well as the amelioration of personal illness and misfortune.²⁴ Ziba in the early 1900s would also have been familiar with European biomedicine from the White Fathers' Marienberg mission station at Kashozi, where priests kept a clinic, or on the basis of scattered forays made through the Haya kingdoms by colonial medical officers in the previous decade.²⁵ Use of biomedical resources did not, just as it still does not, indicate a rejection of traditional healing practices and treatments. While the boldest narratives of sleeping sickness in Kiziba focus on German and Ziba royal activities, lived experience at the time certainly involved consultation of multiple sources of healing, including those peripheral to political power.²⁶ Nevertheless, this study of medical auxiliaries and colonial public health speaks primarily to the ways Ziba people engaged with the German sleeping sickness campaign – the most stable and assertive colonial medical presence to date – and not to their utilization of other healing practices.

Political circumstances as well as scientific knowledge contributed to the variability of anti-sleeping sickness measures. The tricky progress of the trypanosome parasite in the human body presented one challenge in isolating sleeping sickness; ongoing questions about potential insect vectors and animal reservoirs added others. In the case of the German East African administrative region of Bukoba, fluidity in anti-sleeping sickness measures resulted from a combination of factors: the relatively recent implementation of civilian rule, an incomplete knowledge of the distribution of both human populations and tsetse fly vectors, and a public health campaign still in transition from an itinerant tropical medicine research expedition to a locally-focused, ongoing, and expanded intervention. Public health campaigns such as the sleeping sickness campaign envisioned by German authorities required, however, intimate knowledge of disease epidemiology, vector habitats, and human behavior. It also required coordination with, or at least mitigating interference of, “traditional” African authorities that the German colonizers wished to rule under German colonial influence. The success of such campaigns was premised upon an expectation of widespread popular adherence to medical recommendations, and, more fundamentally, on knowing whom the sick were, where they lived, and the illness that affected them.

In 1907, as the German sleeping sickness campaign began in earnest in outlying areas of the Bukoba Residency, significant gaps opened up between medical officers' expectations, Ziba political will, colonial knowledge, and broad participation by Ziba communities. And so local circumstances forced the doctor in charge, Robert Kudicke, to work with Ziba authorities to shift the campaign's tactics and focus. A cohort of Ziba medical auxiliaries emerged in the interstices of royal politics, public health, and the local economy. These auxiliaries occupied a new space in the political, social, and economic landscape of Kiziba, mediating royal power and colonial authority, and engaging with the sick and the well.

²² Berger, *Religion and Resistance*; Schoenbrun, “Conjuring the Modern.”

²³ Weiss *Haya Lived World*, 22.

²⁴ Weiss, *Haya Lived World*, 16; Kodesh, *Royal Gaze*; Iliffe, *Modern History of Tanganyika*, 30-31; Berger, *Religion and Resistance*; Schoenbrun, “A Mask of Calm: Emotion and the Founding of the Kingdom of Bunyoro in the 16th Century,” *Comparative Studies in Society and History* (forthcoming 2013).

²⁵ F. Nolan, *Mission to the Great Lakes: the White Fathers in Western Tanzania* (Tabora, 1978), 24.

²⁶ Kodesh, *Royal Gaze*.

GLAND-FEELERS: AUXILIARIES AT WORK

Employment of African auxiliaries began as an attempt to mend gaps in colonial knowledge about the situation in Kiziba, which included an ignorance of local languages and dialects, scant awareness of crossing points of rivers and swamps, and only basic information on the size, location, and distribution of the population in rural Buhaya.²⁷ Gland-feelers, exclusively men, were trained to find potential cases by identifying swelling of the cervical lymph glands, understood as an early presentation of sleeping sickness. Kudicke trained them in the palpation of glands as a means to survey a population for sleeping sickness, relying on both visual recognition of the correct glands, as well as physical detection of enlarged glands through palpation. In addition to identifying those suspected of being sick, auxiliaries were intended to work along with *katikiros* – a title the Germans used to refer generally to both royal officials and local, low-level chiefs – to bring the sick to the sleeping sickness camp near Kigarama, a village near the lakeshore. The sleeping sickness camp had been located near Kigarama in late 1907 on land designated by the Ziba *mukama*, Mutahangarwa, and built using laborers whom he also sent.²⁸

Training a group of local men to be medical auxiliaries was Kudicke's answer to one of the central challenges of the German sleeping sickness campaign, namely finding, examining, and diagnosing suspected cases of sleeping sickness. Determining whether a person had sleeping sickness required close contact – measuring body temperatures, palpating glands, perhaps taking blood – a process often hindered by people fleeing at the approach of a European doctor. In October of 1907, shortly after taking over the sleeping sickness campaign on the western side of Lake Victoria, Kudicke proposed this novel solution to his superiors in the campaign:

...in order to treat these [sleeping sickness cases] as soon as possible, I will attempt to have individual villages searched by natives who have been trained in the palpation of glands. The sultan Mutahangarwa has sent me 10 young people for this purpose, whose training I have already begun.²⁹

Kudicke chose this cohort of men, called simply “Drüsenfühler” or gland-feelers, through his connections with local leaders and the Ziba king. He envisioned that the gland-feelers would identify suspicious cases, and would then bring people to the sleeping sickness camp at Kigarama for further examination, allowing him to confirm a diagnosis with sleeping sickness in his rudimentary laboratory. Their work was to function, in many cases, as the first survey of sleeping sickness in the outlying areas of Kiziba. Initially focused on communities nearest the Kigarama camp and the lakeshore, these auxiliaries went on to conduct their searches for the sick in ever-widening swathes of territory to the west, extending into Kiziba and German Buddu. No more than 25 gland-feelers worked for the sleeping sickness campaign at the height of their activity, covering an area that extended at least 400 square kilometers.

Gland-feelers operated within a system that offered incentives for cooperation with colonial medical authorities, but that also commodified the sick, or suspected cases, through this reward. Kudicke attached a specific economic incentive to the discovery of proven sleeping

²⁷ Kudicke requested a “Kiswahili kundiger Sanitätsoffizier,” (a Swahili-capable sanitation officer) to help him staff the camp at Kigarama, per BArch R 1001/5897, F.K. Kleine, “Schlafkrankheit,” 31 Mar. 1908.

²⁸ Lwamgira, “History,” 137; Hiroyuki Isobe, “Medizin und Kolonialgesellschaft: die Bekämpfung der Schlafkrankheit in den deutschen ‘Schutzgebieten’ vor dem Ersten Weltkrieg,” (PhD Dissertation, University of Konstanz; Berlin, 2009); BArch R 1001/5897, R. Kudicke, “Bericht über die Schlafkrankheitsbekämpfung im Bezirk Bukoba von 1.1.08 bis 31.3.08,” 13 May 1908, 3.

²⁹ BArch R 86/2622, R. Kudicke, “Bericht über das Schlafkrankenlager Kigarama für die Zeit vom 1.6. bis 1.10.1907 und Vorschläge zur Bekämpfung der Schlafkrankheit in den Sultanaten Kiziba und Bugabu,” 1 Oct. 1907.

sickness cases from the outset. For their work, gland-feelers earned a monthly wage, as well as premium per case identified. Wages and premiums shifted over the course of the campaign, varying from 3 to 5 rupees as a base monthly wage, with additional money for each positive and confirmed case.³⁰ A reward of 1 rupee per positive case was provided in late 1908, increasing in 1909 to “a reward of 3 Rupees...guaranteed to the gland-feelers for each sick person.”³¹ By comparison, a yearly hut tax of 4 Rupees was in place for roughly the same time period. Further, a base wage of 5 Rupees offered in 1908 – not including the premium paid per positive case – nearly matched the 6 to 8 Rupee indemnity offered for a farm by the Germans to people forced to relocate out of tsetse fly areas and abandon their farms.³² Receiving the premium for each positive case depended not simply on getting suspected cases to the camp at Kigarama, but on the confirmation of infection with trypanosomes through examining blood, lymph, or spinal fluid.

At the campaign’s outset in 1907, German plans called for confirmed cases to be detained at the camp and treated with atoxyl, an arsenic-based drug used to varying degrees by the British, French, German, and Belgian colonial states to treat sleeping sickness.³³ At the time, no research had proven conclusively that atoxyl treatments could cure sleeping sickness, and the drug was known to cause serious, permanent side effects such as blindness and to be poorly tolerated in long-term use.³⁴ But initial injections did appear to suppress some symptoms of the disease, likely by killing trypanosomes in the bloodstream. Though not a durable or permanent cure, atoxyl’s short-term effects inspired optimism in Robert Koch, who focused the German system of camps around treatments with the drug he used on the Ssesse Islands in 1906-07.³⁵ The availability of this new treatment also drew the Ziba to the Kigarama camp; people sought treatment at the camp voluntarily, initially, and were also brought by their relatives. Throughout German East Africa, doctors manning sleeping sickness camps also offered

³⁰ BArch R1001/5876, Reichsgesundheitsamt (Präsident F. Bumm), Report, 28 Dec. 1908; BArch R 1001/5876, Dr. Emil Steudel, Report 4 Nov. 1908; BArch R1001/5898, Gudowius, “Bericht über die Ausbreitung der Schlafkrankheit im Bezirk Bukoba, die Ursachen ihrer Einschleppung und die Massnahmen, die zur Verhinderung ihrer weiterverbreitung getroffen werden können,” (Report), 31 May 1908; BArch R 1001/5903, G. Ullrich, Report, 31 Dec. 1909, 5.

³¹ BArch R 1001/5903, G. Ullrich, Report, 31 Dec. 1909, 5.

³² BArch R 1001/5904, G. Ullrich, Report, 16 Apr. 1910; Iliffe, *Tanganyika under German Rule*, 160.

³³ BArch R 1001/5904, G. Ullrich, Report, 31 Jul. 1910. On atoxyl, see W. Eckart, *Medizin und Kolonialimperialismus Deutschland 1884-1845*, (Paderborn, 1997); C. Gradmann, *Krankheit im Labor: Robert Koch und die medizinische Bakteriologie*, (Göttingen, 2005); W. Eckart, “The Colony as Laboratory: German Sleeping Sickness Campaigns in German East Africa and Togo, 1900-1914,” *History and Philosophy of the Life Sciences* 24 (2002); C. Gradmann, “‘It Seemed About Time to Try One of Those Modern Medicines’: Animal and Human Experimentation in the Chemotherapy of Sleeping Sickness 1905-1908,” in G. Maio and V. Roelcke, *Twentieth Century Ethics of Human Subjects Research: Historical Perspectives on Values, Practices, and Regulations*, (Stuttgart, 2004); D. Neill, “Paul Ehrlich’s Colonial Connections: Scientific Networks and Sleeping Sickness Drug Therapy Research, 1900-1914,” *Social History of Medicine* 22:1 (2009), 61-77.

³⁴ Lyons, “Sleeping Sickness,” 111; Steverding, “The development of drugs for treatment of sleeping sickness: a historical review,” *Parasites and Vectors* 3:15 (2010), 1-9.

³⁵ BArch R1001/5895, R. Koch, draft of “Bericht über die Tätigkeit der Expedition zur Erforschung der Schlafkrankheit während ihres Aufenthalts auf den Sese-Inseln bis zum 15. Oktober 1906,” 15 Oct. 1906; Geheimes Staatsarchiv-Preußisches Kulturbesitz (GStA PK), 1 HA. Rep. VIII, Nr. 4118, R. Koch, “Bericht über die Tätigkeit der Schlafkrankheits-Expedition bis zum 25. November 1906,” 25 Nov. 1906; BArch R1001/5896, R. Koch, Draft of “Bericht über die Tätigkeit der Schlafkrankheits-Expedition bis zum 25. April 1907” 25 Apr. 1907. Koch’s reports from the 1906-07 expedition were published serially in the *Deutsche medizinische Wochenschrift* and collected in G. Gaffky and E. Pfuhl, *Gesammelte Werke von Robert Koch*, (Leipzig, 1912).

material incentives – sleeping mats, food, tobacco – to those who came to be tested and treated for the disease.³⁶

But regardless of such incentives, people ultimately wanted to come and go on their own. Statistics from Kigarama indicate an ebb and flow of admissions and people leaving the camp of their own volition, evidence of a flexible and pragmatic approach to seeking healing and care. This reading of colonial data considers the decision to reject German biomedical treatments when their efficacy failed, or when these treatments were seen to do more harm than good. Initially, the camp was neither viewed consistently as a site of healing, nor as a site where harm would always occur. Coming and going from the camp to receive injections, food, or other treatment, remained one choice among many for Ziba people coping with illness. Movement out of the camp exemplifies that choice, pushing against colonial biomedical discipline, and also demonstrate the importance of remaining a part of the rhythms of life outside its boundaries.

But such irregular movements, unpredictable to camp doctors, made a mess of German efforts to track the incidence of sleeping sickness and monitor people dosed with trypanocidal drugs. And so, after 1908, the German administration's anti-sleeping sickness campaign was reorganized to center on the camps as sites of ambulatory treatments with trypanocidal drugs rather than as sites of internment and isolation (though advanced cases and those with severe neurological effects frequently remained at the camp). This shift in policy developed in response to African patients entering and leaving the camp of their own volition, a slow trickle of people recorded in camp statistics as "removing themselves from treatment." Public health officials acknowledged in 1908 that holding people against their will to isolate them and treat them with atoxyl, as initially conceived, had been "completely futile."³⁷ Given the campaign's new focus on ambulatory treatment and its dependence on stations or camps as hubs of activity, the most effective way to continue to reach the population – to draw in people for examination and treatment – remained a point of debate at the administrative level, in Berlin and in German East Africa.³⁸ Despite some voluntary admissions to the camps, German officials believed that many more cases remained hidden in the surrounding countryside. As policy-makers reviewed the campaign in its first year, the camp at Kigarama stood out, "commendable" among others around Lake Victoria and Lake Tanganyika for Kudicke's "efforts to get along with the natives without compulsory measures."³⁹ Kudicke was praised at a roundtable meeting in Berlin on the sleeping sickness campaign for "keeping the sick under continuous supervision."⁴⁰ But Kudicke's model camp relied not on a lack of compulsion or force, but on compulsion from a different direction and force that colonial officials did not claim as their own. At Kigarama, African auxiliaries – Kudicke's gland-feelers – had already begun to preclude sending out European personnel and armed African soldiers to find potential patients. Unlike other camps in the region that relied upon searches conducted by European personnel and negotiations with individual village chiefs, the Kigarama camp used gland-feelers to augment and sometimes supplant the work of German doctors.

Not only did gland-feelers do a different kind of work for the camp than other Africans employed there as cooks or orderlies, but they also did a different kind of work than German doctors themselves. Stories of the camp reflect this division of labor: "The sick were helped by people to go to the hospital. The Germans send [sic] people to search for sick people. These are people who worked for the Germans and they were paid for that. The Germans did not go

³⁶ On provisions provided at the camp, see BArch R 1001/5897, R. Kudicke, Report, 13 May 1908. Feldmann included food, blankets, clothing, and sleeping mats in his report on the 1908 budget for the Tanganyika campaign; BArch R 1001/5897, O. Feldmann, Report, 1 Apr. 1908.

³⁷ BArch R 1001/5898, F.K.Kleine, Report, 30 Aug. 1908, 2.

³⁸ BArch R 1001/5876 "Aufzeichnung über die Sitzung des Reichs-Gesundheitsrats (Unterausschuß für Schlafkrankheit)," 5 Apr. 1909.

³⁹ BArch R 1001/5876, Dr. Emil Steudel, Report 4 Nov. 1908, 3-4.

⁴⁰ BArch R 1001/5876, Dr. Emil Steudel, Berlin, Draft letter to Governor Rechenberg, Dar es Salaam, 6 Nov. 1908, 7-8.

themselves."⁴¹ These auxiliaries were, initially, considered a great success. Within 8 months of his initial group of 10, Kudicke reported 23 gland-feelers at work near Kigarama and 85 total new cases admitted within the previous quarter. The total number of people treated in late May 1908 was 581. He noted that "by far the most newly admitted [cases] have been found by Africans trained in gland palpation," and went on to provide his only description of how gland-feelers did their work:

In the field of action of the sleeping sickness camp 23 such assistants are working and with the following assignment: every hut will be searched individually. A representative of the katikiro should if possible be at each examination. The gland-feelers note the names of all people with swollen neck and armpit glands. Only people with at least bean-sized glands will be sent, with the help of the katikiro, to Kigarama...⁴²

In the camp's first months, Kudicke would have gone out to villages and farms himself, likely accompanied by a few soldiers and an elder and carrying with him the tools to collect samples of blood or lymph. Though conversant in the colonial government's preferred Swahili, he would have relied on the elder to communicate in local dialects of Ruhaya, and likely would have looked for the telltale Winterbottom's sign and other, more serious symptoms of sleeping sickness such as swelling of the hands or face, wasting, or sleepiness. Kudicke does not describe examining blood or lymph samples in the field, nor performing spinal punctures, suggesting that suspected cases were brought to the camp for further testing. His movement through African communities followed, in this early period, what he had done as a member of the German sleeping sickness expedition, where the primary focus was identifying whether or not cases of sleeping sickness could be found.

Now, with the presence of the disease generally established, he sent gland-feelers into the field. Their survey work was no great departure from what Kudicke himself might have done – identifying and palpating a suspect lump on the neck was considered a far easier prospect than demanding to pierce someone's skin or spine. Finding the right glands with the right level of swelling was not a straightforward undertaking, indicated by the informal diagnostic standards in circulation within the sleeping sickness campaign. German doctors in the field in East Africa referred to a scale of gland size based on common items to best approximate when swollen glands were dangerous or suspicious, or, by contrast, when swelling might be too widespread to be noteworthy. Apart from "bean-sized" swelling that Kudicke instructed Kigarama gland-feelers to attend to, other doctors referred to a wide variety of items - peas, cherries, hazelnuts, pigeon's eggs - to gauge the standards by which they diagnosed the sick and explain these to their colleagues and superiors.⁴³ What exactly these different grades of inflammation meant for a person's health was also not precisely known. Attention to swollen glands remained a most widely used method for initial screening, however, as the tools and methods available changed unpredictably, according to shipment of supplies or the circumstances of an examination. Diagnosis was ideally confirmed through examining spinal or lymphatic fluid, or less ideally, blood, under a microscope for trypanosomes. Kudicke was also the lone medical officer north of Bukoba, responsible for the kingdom of Kiziba as well as Bugabu and German Buddu. Very practically, gland-feelers allowed the sleeping sickness campaign to survey a greater number of people in a particular territory more quickly than Kudicke could alone. A cohort of local auxiliaries let Kudicke stay in the camp in his makeshift laboratory and clinic under thatched-roof bandas, identifying trypanosomes under the microscope, monitoring long-course doses with atoxyl, and keeping track of the drug's ill effects and disease mortality.

⁴¹ Interview with Bernard Mutekanga, Kashozi, Tanzania, 8/19/2008.

⁴² BArch R 1001/5897, R. Kudicke, Report, 31 May 1908, 1.

⁴³ BArch R 1001/5904, Scherschmidt, Report, 4 Jan. 1910; BArch R 1001/5911, Scherschmidt, Report, 1 Jan. 1914; BArch R 1001/5910, Lurz, Report, 1 Jul. 1913; BArch R 1001 5911, Lurz, Report, 1 Oct. 1913.

The social and agricultural organization of Kiziba, the campaign's "field of action," made finding individual cases of sleeping sickness difficult. In a territory where swamps and small rivers cut through the land, farms and villages filled in hillsides and plateaus; Kanyigo district, where Kigarama was located, was dominated by a narrow, high-ridged plateau.⁴⁴ The layout and organization of villages and farms was linked to the importance of banana cultivation and also reflected the dispersed, yet hierarchical and centralized, political and social structure in Kiziba. Dispersed Ziba villages were typically made up of a cluster of homes – a traditional circular, domed *msonge* – each surrounded by a banana plantation, a *kibanja*.⁴⁵ A main path led through the typical village, with side paths branching off toward each home, set back within banana and coffee plants. Densely populated and intensively farmed, the hillsides and fields in Kiziba presented colonial officials with a labyrinthine network of connected villages, surrounded by uncultivated fields or swampy land. This landscape and village layout allowed people to evade colonial authorities. Several hundred homes and surrounding farms made up the largest Ziba villages, by colonial surveys; how and where the population was distributed, however, remained only estimates until just before World War I.⁴⁶ With the colonial recognition of sleeping sickness in Kiziba, doctors' unfamiliarity with and their inability to penetrate this Ziba landscape of villages and farmland to locate the sick had been key factors in the advent of Ziba auxiliaries.

Intake charts for Kigarama indicate that the twenty-three auxiliaries in the field contributed to a steady influx of people to the camp – 38 in November 1907, 30 in December 1907, and then a total of 85 in the first three months of 1908.⁴⁷ Between January 1908 and June 1908, upwards of 500 people were treated at the camp each month, decreasing to a monthly average of around 400 people only when an ancillary camp was built at Kishanje, at the base of the peninsula jutting out into Lake Victoria opposite Kigarama.⁴⁸ The additional cases brought in by gland-feelers added, bit by bit, to the cohort of several hundred people around which the camp was established initially – it began with over 300 patients – people brought by their families, encouraged to seek treatment by neighbors or kin, or who came independently. Prior to the deployment of auxiliaries from Kigarama, how people came to the camp is unclear, but likely involved, as with other processes of treatment-seeking, a combination of individual will and collective decision-making among a family group or village.⁴⁹ German doctors offered small payments (1/2 -1 Rupee) to relatives who brought their kin to be tested and treated for sleeping sickness, paralleling the advent of gland-feelers who also received monetary incentives in addition to wages for their work: "Patients went to the hospital but the very sick were carried there by other people to the hospital. The Germans asked people to bring the sick to the hospital. Those who brought people were given money by the German healers."⁵⁰ While in this telling, the relationship between bringing the sick and receiving money stands out, Andrea Kajarero, an early Haya Protestant reader who wrote his memoirs in the 1940s-50s, described going to Kigarama as a young man because of the watchfulness of people from his natal village:

The doctor oriented toward people with particular attention toward those who had just returned from Uganda. He took blood smears from their fingers and pressed their throats. If he found eggs, they had to stay in the hospital and received arsenic. Many died from this disease. People were very afraid of it. This happened in 1907-1908. The

⁴⁴ Schoenbrun, *Green Place*, 166.

⁴⁵ H. Rehse, *Kiziba: Land und Leute* (Stuttgart, 1910) 2.

⁴⁶ Rehse, *Kiziba*, 1-3, used a rough estimate of three people per home to tally population figures, noting that homes had only been counted for the first time in the preceding few years.

⁴⁷ Charts for Kigarama, see statistics page in database.

⁴⁸ BArch R 1001/5901, R. Kudicke, Chart for Kigarama Camp, July 1908, 9 Aug. 1908.

⁴⁹ S. Feierman, "Struggles for Control: The Social Roots of Health and Healing in Modern Africa," *African Studies Review* 28: 2/3 (1985), 73-147; J. M. Janzen, "Therapy Management: Concept, Reality, Process," *Medical Anthropology Quarterly*, 1:1 (1987), 68-84.

⁵⁰ Interview with Bernard Mutekanga.

villagers of Ruzinga knew that Andrea Kajarero and Peter Musenya had just come from Uganda and therefore forced them to go to Kigarama to the hospital. The doctor pressed their necks, but he found no eggs. He took blood samples and said, "Go back home, but you must return in seven days." But they returned to Ruzinga, they were afraid, and decided to go to Uganda. In this manner, they came to Uganda and began their confirmation classes.⁵¹

This moment of examination and avoidance, key to Kajarero's personal history and his advancement in the Christian church, also reveals a glimpse into a Ziba village's social dynamic at the height of searches for cases of sleeping sickness. Fear of illness and death was widespread. That villagers forced Kajarero and his companion to go to the camp suggests a desire to deflect the attention of the German doctor at Kigarama away from Ruzinga, from their community, and toward these two individuals who satisfied his criteria for suspicion. If discovered in the village, as known travelers from Uganda, this would have been cause for examining the entire male adult population of the village, if not the entire village, under German policies. Here, the experience of "voluntarily" going to Kigarama for examination – touted by colonial officials as evidence of the trust and support of local communities – occurred not entirely freely, but at the insistence of relatives or members of broader kinship networks. German surveillance and prevention measures relied not only upon a pretense of strict control of communities by colonial authorities, but also on the enforcement of colonial rules by local authorities, and, less formally, by communities fearful of both the disease and mindful of the potential negative consequences of any perceived defiance of new rules for caring for the sick or moving about the area. Pressure within villages such as Ruzinga also likely had much to do with knowledge of royal cooperation with the German campaign and camp. Mutahangarwa's instructions or demands were remembered to account for the large numbers of people who went to Kigarama initially, and his support was instrumental in the siting and building of the camp.⁵²

Just as the Ziba court had been involved in the establishment of the camp at Kigarama, so, too, was Ziba political life a part of the camp's activities. Like the location of the camp itself near Kigarama, these medical auxiliaries came out of a collaborative relationship with the *mukama* Mutahangarwa. Kudicke had not, after all, simply plucked the men he trained to be the camp's gland-feelers out of the general Ziba population. Equally important to what the gland-feelers did as they moved among Ziba farms and villages was on whose behalf they did it: in this case, both the divinely invested *mukama* and the German colonial medical officers at Kigarama.

GLAND-FEELERS AND THE ZIBA COURT

Men hired by Kudicke as gland-feelers were closely affiliated with Mutahangarwa's royal court. The political economy of land use and labor in Kiziba focused on the demands of the *mukama* and his district and village subchiefs. A *mukama* was a "receiver of milk" or "milker," linking the importance of possessing cattle and controlling their products to one's political power and legitimacy.⁵³ Cattle husbandry provided people with milk and butter, as well as manure fertilizer for cultivation; the absence of tsetse flies from Kiziba meant that Ziba herds that survived the devastating cattle diseases of the late nineteenth century were not subsequently endangered by trypanosomiasis.⁵⁴ The royal title also connotes the extractive role

⁵¹ Bethel Mission Archives (BMArch) M 194, A. Kajarero, "Aus meinem Leben," (1955-56?), 9-10.

⁵² Interview with Bernard Mutekanga.

⁵³ D. Schoenbrun, "Cattle Herds," 39-72; see D. M. Anderson, "Cow power: livestock and the pastoralist in Africa," *African Affairs*, 92 (1993), 121-33.

⁵⁴ Austen, *Northwestern Tanzania*, 10; P. Reining, "Haya Land Tenure: Landholding and Tenancy," *Anthropological Quarterly*, 35:2 (1962), 58-73; Weiss, *Sacred Trees*, 35.

of the king, and the primacy of royal claims on his subjects' labor, goods, and harvest.⁵⁵ Tribute, in the form of "first fruits" of a farm, such as bananas, grain, livestock, or hides, were brought to the royal court. The mukama also had control of all crafts, such as ironworking and barkcloth production.⁵⁶ Large, consolidated farms held by clan heads and granted by favor of the king called *nyarubanja* (literally a "large *kibanja*," banana plantation) were "important sources of patronage, labor, and tribute for their noble estate holders" and to the mukama; ongoing processes of the alienation and granting of land by royal fiat connected clients to the king.⁵⁷ That claim was exercised in the form of tribute given to the king and his chiefs, but also in the requirement of able-bodied men fulfilled a duty to travel to the king and "work there without payment for one month.... cleaning plantations, erecting buildings, cutting firewood, herding cattle, etc."⁵⁸

Within the context of the mukama's broader claims on the labor and products of his subjects, selected young men fulfilled a particular category of service. The young men who came to work as gland-feelers may have been members of an age-set group in Ziba society called a *muteko*, composed of young men selected by local political leaders to serve at the mukama's palace. Arriving at the palace between ages ten and twelve, the young men learned "the arts of war" but were also responsible for pasturing cattle, cleaning out cattle enclosures, cutting grass, and other general maintenance work.⁵⁹ Promising young men remained at the court for several years after the standard three years of service, receiving additional training in civil and religious matters, with a successful few entering the king's service as officials at the court or in the provinces.⁶⁰ A person's progress through *muteko* and into royal service suggests that gland-feelers (whom the Kudicke referred to as "young men", and not "boys") would have been older than 16, but were likely younger than Kudicke's own age of 30.⁶¹ At home and in wider society, responsibilities differed for young men and young women, though perhaps not as sharply as German appraisals of the turn of the century might indicate. Colonial ethnographer, linguist, and sometime planter Hermann Rehse asserted that young women helped with cooking and keeping courtyards clear, while young men spliced rope together, fished, hunted, and brought "taxes" to the royal court.⁶² The original German phrase "trägt die Steuer an den Königshof" literally means "carries taxes to the king's court," but, given contemporary and historical analyses, remains ambivalent as to what the exact relationship between young men and the court might have been. Young men might have simply brought tribute from a family or clan farm to the court, in the form of a tax in cowries and first fruits of the harvest. It is likely that a responsibility to travel regularly to the court, wherever it might have been located, also served to socialize Ziba boys and orient them in the political hierarchy. Though Rehse does not record that boys "carrying the taxes" spent an extended period of time at the court, Peter Schmidt's late twentieth century informants' discussion of their *muteko* indicated that contact with the court was an important marker of generational identity and status.⁶³ "Bringing taxes" may have involved a period of personal service at the court as well. Young men available to Mutahangarwa to call upon for service, having grown up at the court, were likely sons of his chiefs or young blood relations from within his extended descent-group

⁵⁵ Schmidt, *Historical Archaeology*, 101; Rehse, *Kiziba*, 1.

⁵⁶ H. Cory and M.M. Hartnoll, *Customary Law of the Haya Tribe, Tanganyika Territory*, (London, 1945); H. Cory, *Historia ya Wilaya Bukoba*, (Mwanza, 1956). Cory and Hartnoll, *Customary Law*, 125; Rehse, *Kiziba*, 54; Schmidt, *Historical Archaeology*, 29-30.

⁵⁷ Weiss, *Sacred Trees*, 111; Cory and Hartnoll, *Customary Law*, 123-26.

⁵⁸ *Nsika*, per Cory and Hartnoll, *Customary Law*, 125; *kikale* per Schmidt, *Historical Archaeology*, 29.

⁵⁹ Schmidt, *Historical Archaeology*, 29; Austen, *Northwestern Tanzania*, 11, 144; Stevens, "Religious Change," 8; Nolan, *Mission to the Great Lakes*, 21.

⁶⁰ M.P. Kilaini, *Catholic Evangelization*, 12-13.

⁶¹ Cory and Hartnoll, *Customary Law*, 271.

⁶² Rehse, *Kiziba*, 115.

⁶³ Schmidt, *Historical Archaeology*, 29.

or clan.⁶⁴ To set this system of training and service in regional perspective, the Ziba system of *muteko* was comparable to the training and socialization of young men as pages at the Ganda court.⁶⁵ The Ziba court, similarly centralized under the authority of the *mukama*, functioned similarly as a means for training in statecraft and military service, and perhaps also upward political mobility.

As “middles” moving among the population, gland-feelers conducted essential epidemiological groundwork, surveying communities, documenting the incidence of cases in a population, and establishing site-specific records.⁶⁶ Their association with the royal court, training as a group by Kudicke, and work from the camp at Kigarama, set gland-feelers apart from the broader Ziba population. The men may have been known personally and so recognized individually as being in the employ of the camp or close to the king, or could have worn clothing or carried objects that signaled this. Along with their political and social education at Mutahangarwa’s court, they were literate and had likely attended one of the nearby White Fathers mission schools to learn to read and write, another recent shift in Kiziba. After securing the throne, Mutahangarwa had engaged with Catholic missionaries, counting among his subjects both Catholic catechists and Protestant readers educated and converted in the tumultuous decades prior. The Catholic White Fathers mission at Mugana, near the royal seat at Gera, gained increasing traction with the new king after 1905, resulting in greater attendance of mission schools.⁶⁷ In addition to new skills, gland-feelers required the material tools of epidemiological research – paper and a writing instrument, to note the names of the sick. Similar to other auxiliaries working elsewhere for the German campaign, they were likely given clothing and materials by the camp, including shoes, a hat, or a uniform.⁶⁸ European-style clothing would have been familiar, if not widely available to most Ziba, and a symbol of elite status. Mutahangarwa self-consciously refashioned royal attire at around this same time, becoming “the first King in Kiziba to dress like Europeans,” according to his minister and historian F.X. Lwamgira.⁶⁹ Clothing that came from the Germans would have added another layer of difference, distinct from barkcloth made locally or printed cotton cloth available through trade between the interior and the Swahili coast.⁷⁰ As a group, then, the gland-feelers held a social and political role not absolutely secure or independent – subject to the favor of the king and the needs of the colonial regime – but different to many of the people they encountered both in function and in appearance. As these men were deployed from the camp, the imprimatur of Ziba royal authority, its striving toward modernization, and its elevated social status accompanied them.

The success of Ziba auxiliaries also came to the attention of the acting Resident for Bukoba, who reported to the Colonial Office in May 1908:

The attempt of the leader of the sleeping sickness campaign in this district to have the sick located through coloreds, who are trained in the palpation of glands, has evinced

⁶⁴ Rehse, *Kiziba*, 110.

⁶⁵ L. A. Fallers assisted by S.B.K. Musoke, “Social Mobility, Traditional and Modern,” in Fallers, ed., *The King’s Men: Leadership and Status in Buganda on the Eve of Independence* (Oxford, 1964), 170-1; R. Reid, “The Ganda on Lake Victoria: a Nineteenth-Century East African Imperialism,” *Journal of African History* 29 (1998), 349-50.

⁶⁶ Hunt, *Colonial Lexicon*.

⁶⁷ Iliffe, *German Rule*, 174; Iliffe, *Modern History of Tanganyika*, 122.

⁶⁸ BArch R 1001/5897, O. Feldmann, Budget for the Tanganyika Campaign, 1 Apr. 1908; BArch R 1001/5910, Governor Schnee (on tour) to Dar es Salaam, 24 Jan. 1913, including correspondence from Sanitation-Sargeant Sacher, 19 Oct. 1912 and Dr. Penschke, 6 Nov. 1912.

⁶⁹ Lwamgira, *History*, 137-38.

⁷⁰ B. Weiss, “Dressing at Death: Clothing, Time, and Memory in Buhaya, Tanzania,” in H. Hendrickson, ed., *Clothing and Difference: Embodied Identities in Colonial and Post-colonial Africa* (Durham, NC, 1996), 133-54.

fine success and led to the discovery of a whole number of typical cases of sickness. This searching for typical cases must be continued, if in a still more intensive and expanded measure than previously.⁷¹

That summer and fall, gland-feelers continued to canvass the northern and western areas of the district from Kigarama. Several auxiliaries trained at Kigarama also began to expand searches into southern parts of the district, particularly the large kingdom of Ihangiro, from a base at Bukoba. Others had been posted alone or in pairs at key crossings on routes in and out of Uganda, such as the ferry on the Kagera River at Kifumbiro and on the main road south of Kigarama at Kikongoro. Soldiers – either *rugaruga* on the king's retainer or colonial African *askari* – were posted with these outlying gland-feelers, to assist with transporting suspected sleeping sickness carriers to Kigarama.⁷² German policy continued to shift, in its finer points: Kudicke now instructed gland-feelers to pay attention to people only with “significant” swelling, and had begun to issue permits from the camp that indicated a person with sleeping sickness was allowed to travel more widely in the district.⁷³ With an eye on trade and the impossibility of perfect monitoring, Kudicke reported that he had instructed auxiliaries posted at Kifumbiro and Kikongoro to avoid anything that could be cumbersome to the free traffic of healthy people. This less stringent outlook reflected German appraisals that the majority of sleeping sickness cases in the district had been identified and were known, and, absent the fly carrier in the immediate vicinity, that the disease was in check locally although existing cases could not be cured. This approach also indicates a sense of the sleeping sickness campaign's natural limits and the importance of proceeding in a way that did not disrupt the rhythms of trade and movement, to avoid turning the wider population against it. However, policies remained stricter toward people traveling to and from Uganda, who still drew greater scrutiny both in transit and living in the countryside.⁷⁴

Kudicke's instructions to the gland-feelers remind us that methods of diagnosis in the tropical medicine community were not standardized in the early twentieth century, particularly with regard to sleeping sickness.⁷⁵ Despite crediting gland-feelers with a great number of new cases at Kigarama, Robert Kudicke acknowledged in December 1908 that the premises of examination and screening were flawed, and that “individual observations indicate that gland-swelling to the extent which we consider typical develops comparatively late.”⁷⁶ Characteristic swollen glands, then, might not actually indicate early stages of disease and initial infection with the trypanosome parasite, but rather a wider range of stages of the illness. Heading off further spread of sleeping sickness required catching early-stage cases before people could travel beyond the camp's purview. But neither German doctors nor gland-feelers had a truly reliable means to do so. Absent an alternative means to screen the Ziba population, however, the search for swollen glands and telltale symptoms continued to guide the anti-sleeping sickness campaign.

TROUBLE IN THE FIELD

⁷¹ BArch R 1001, 5898, Gudowius, “Bericht,” 31 May 1908, 59-60.

⁷² Michelle Moyd, “Becoming Askari: African Soldiers and Everyday Colonialisms in German East Africa, 1850-1918,” (Unpublished PhD thesis, Cornell University, 1909).

⁷³ BArch R1001/5899, R. Kudicke, Report, 18 Dec. 1908, 1.

⁷⁴ BArch R 1001/5898, R. Kudicke, “Bericht über die Bekämpfung der Schlafkrankheit im Bezirk Bukoba 1. Mai bis 31. Juli 1908,” undated 1908, 1.

⁷⁵ O. Amsterdamska, “Demarcating Epidemiology,” *Science, Technology, & Human Values*, vol. 30, no.1, 17-51. M. Worboys, “Tropical Diseases,” in R. Porter and W.F. Bynum, *Companion Encyclopedia to the History of Medicine*, (London, 1993), 527; Worboys, “The Emergence of Tropical Medicine: A Study in the Establishment of a Scientific Discipline,” in *Perspectives on the Emergence of Scientific Disciplines*, G. LeMaine et al., (Chicago, 1976), 75-98.

⁷⁶ BArch R 1001/5899, R. Kudicke, “Bericht über die Schlafkrankenlager Kigarama und Kishanje 1. August bis 30. November 1908,” undated 1908, 3.

Camp doctors at Kigarama recognized the importance of the tolerance, if not participation, of the Ziba population for campaign measures. Searching for the sick with African auxiliaries was intended to facilitate suspected cases' entry into the camp and ease the way of the sleeping sickness campaign. What they did not bargain for was how Ziba auxiliaries working as gland-feelers would test community tolerance, and, ultimately, change the nature of the exchange of suspected cases for cash premiums that the Germans had created and that gland-feelers controlled. Flexible and ephemeral judgments about the people they encountered – about who might be sick and might be removed to the camp at Kigarama and who could remain in their home – were the crux of gland-feelers' work. Sitting between newly imposed colonial technologies of disease prevention and the potential targets of these interventions opened up the potential for these auxiliaries to exert significant discretionary power. People subject to search or examination engaged with gland-feelers with varied strategies aimed not simply at evading, but also drawing closer to, the camp at Kigarama.

Robert Kudicke had offered no indication in his monthly and quarterly reports that trouble was brewing in Kiziba, nor that gland-feelers were the focus of that trouble. Reports in mid-1909 indicate retrospectively that the cohort of gland-feelers was reduced in September of 1908, and Kigarama intake charts show only 22 new cases total for August through November of that year. Several auxiliaries remained on the payroll into 1909, mostly posted at transit checkpoints, the Kifumbiro ferry, and monitoring ship and caravan traffic in Bukoba. After over a year of work, and more than two years after the Kigarama camp's establishment, German officials began to question the efficacy and effort of gland-feelers working near Kigarama. Gland-feelers were, they believed, missing suspected cases of sleeping sickness in the field either by not reporting cases in exchange for some form of payment, or by not searching areas as they were supposed to. In Kiziba, concerns began to surface in the monthly reports from Kigarama. Kudicke wrote of efforts to search neighboring Bugabu in 1908: "Doubtless multiple sick people have been overlooked by the gland-feelers. Inspection by Europeans therefore cannot be spared."⁷⁷ Ullrich, who temporarily replaced Kudicke as the supervising doctor Kigarama in 1909, complained:

At the beginning of March, the sanitation under-officer stationed here was sent out in order to check on the gland-feelers active in the district and to survey the western part of Kiziba for the presence of [people with sleeping sickness]. 62 people with suspicious glands were discovered by him, which had escaped the gland-feelers. ... It speaks in no way for an intensive activity of the gland-feelers, when so many suspected [cases] in a relatively small district have evaded [them], which are found by a European within 5 days, 2 of which are lost to the walk out and back.⁷⁸

Although, of the 62 suspected cases that Ullrich's junior colleague found, only 1 showed trypanosomes in the bloodstream, such disconnects between what African auxiliaries reported and what European superiors found on their own investigation undercut the premise of auxiliaries' efficacy. Oversight by European officers, who would periodically tour the district, became the initial solution to doctors' sense that gland-feelers were not turning up the cases that they should have been. But this proved only a temporary solution, and ran against auxiliaries' function to stretch sleeping sickness campaign resources and work more smoothly with surrounding populations. German criticisms of Ziba auxiliaries' work were deeply colored by racialized evaluations of African dedication or indolence toward the work. But various supervisors of gland-feelers gradually came to see the wage and premium structure as an issue. Of Ziba gland-feelers at work near Bukoba, the station doctor wrote:

⁷⁷ BArch R 1001/5899, R. Kudicke, Report, 18 Dec. 1908, 4.

⁷⁸ BArch R 1001/5901, G. Ullrich, Report, 31 Mar. 1909.

In general the gland-feelers bring many fewer people to examination themselves. I have the feeling that these people, employed with a set monthly wage, now limit themselves to making a small circuit through their area from time to time and then to bring this or the other man to Bukoba for examination, in order to not seem completely inactive.⁷⁹

The monthly wage offered no incentive for consistent work, here, and the premium per case encouraged auxiliaries to bring in anybody, rather than the right bodies with the desired signs of illness. Thus in mid-1909, the set monthly wage for all gland-feelers was all but eliminated in the southern part of Bukoba and in Kiziba, with the general exception of men stationed at transit points. Gland-feelers bringing verified cases of sleeping sickness to a camp would receive 3 Rupees only, and no wage otherwise; but now, sick people who voluntarily came to camp would also receive a 3 Rupee payment.⁸⁰ Gland-feelers at transit points would still receive a wage and 1 Rupee reward for each verified sick person they produced. German officials did not apparently consider, or at least did not admit, that the proportion of positive cases among the population might have declined to levels difficult to detect within the system of searching that remained in use.

More troublesome to the campaign than lackluster searches for the sick was what else gland-feelers were reportedly up to in the field. In this case, because of the involvement of African authorities in the employment of Ziba auxiliaries specifically, the problem was limited to a public health issue, but had political implications as well. Two separate but closely related problems emerged: allegations of extortion against gland-feelers and flight from gland-feelers' examinations into British territory.

Gland-feelers' work was predicated on a novel exchange unlike other wage work for the colonial administration. Rupees changed hands around the delivery of a person to the camp and the confirmation of trypanosomes in their body by the camp doctor. The reward for each positive case was explicitly intended to "spur [gland-feelers] on to eager action," implicitly recognizing that examining and bringing in suspected cases of sleeping sickness among one's own community might have its difficulties and require some additional incentive.⁸¹ Yet this exchange of money for potential patients held its own inherent difficulties. Gland-feelers could exert discretionary power – commanding someone to examination or leaving them at home – selectively, to their own benefit. This was particularly true if an auxiliary was very familiar with his field of work, ironically, as this familiarity is what made the employment of gland-feelers from Kiziba attractive in the first place. Kudicke began to recognize the potential for trouble late in 1908, noting that "in order to prevent colored gland-feelers being enticed, perhaps, to corruption, it is ordered that they must change their area from time to time (in Bugabu as well as in Kiziba)..."⁸² On Bumbire Island, south of Bukoba, gland-feelers trained at Kigarama had come to loggerheads with the population, complaining about the population's increasing resistance to examination. The supervising doctor noted that askari had to be sent in "to enable the gland-feelers to carry out their charge" among the "particularly hard-headed" islanders. On the other hand, however, "grievances from the people had come in about blackmail from the gland-feelers." In one such case, a Kigarama-trained gland-feeler whose a blackmail attempt was proven received legal punishment.⁸³ Closer to home, Kigarama station doctor Ullrich acknowledged the possibility of blackmail and extortion as gland-feelers worked in Kiziba and the neighboring kingdom of Kianja. Though he had not personally heard of blackmail similar to the southern part of the district, he found it a credible suspicion, "at the very least with respect to the attainment of foodstuffs."⁸⁴ In these predominantly agricultural kingdoms, people who

⁷⁹ BArch R1001/5901, Ruschhaupt, Report, 1 Jul. 1909.

⁸⁰ Ibid.

⁸¹ Ibid.

⁸² BArch R 1001/5899, R. Kudicke, Report, 18 Dec. 1908, 4.

⁸³ BArch R1001/5901, Ruschhaupt, Report, 1 Jul. 1909, 2; BArch R 1001/5899, Marshall, 7 Jan. 1909.

⁸⁴ BArch R 1001/5903, G. Ullrich, Report, 1 Jul. 1909.

did not have excess money could offer payments of food to auxiliaries in return for overlooking a household or individual with suspicious glands.

Such counter-payments, which remained largely hidden, give us some insight into the research encounter between gland-feelers and other Ziba. Finding suspected cases of sleeping sickness required touch – literally getting a hold of someone – and produced a fundamentally fraught encounter. Both colonial and African narratives of sleeping sickness investigations in the early twentieth century emphasize the importance of close proximity, of touch, to identifying people who may have been sick. A memoir of the time gives a sense of how that research encounter could be a coercive, dangerous interaction:

The Medical Officer sent young men all over the villages to go and press the necks of the people to see those who had signs of Botongo disease. If they found any, they would send the person to Kigarama for treatment. ... They captured a lot of people, but when some saw how the Doctor pierced their shoulders injecting them, they feared and migrated to other areas. The doctor continued capturing people and taking them to Kigarama and those who did not have it, were not affected.⁸⁵

Here, doctors and auxiliaries “capture” people – voluntary admission to the camp has no place. Gland-feelers’ work to palpate the necks and armpits of any and all people suspected of being sick is here a form of contact that was out of the ordinary. Ethnographic studies of Kiziba indicate a strongly gendered and hierarchical social structure historically, and searching for sleeping sickness would have done violence to ways that people usually interacted with each other.⁸⁶ Further, the research encounter initiated by gland-feelers was also different than interactions centered on healing, which were sought to resolve individual suffering, collective misfortune, or layered combinations of both, and which employed medicines and practices within particular social and moral frameworks.⁸⁷ Even if Ziba healing at the time had involved palpation, piercing the skin, or introducing substances into the body, auxiliaries working for the German camp, wearing European-style clothes, perhaps accompanied by colonial police or soldiers, would not have operated within the realm of traditional healers’ work.

Some people engaged with gland-feelers to try to regain some control of whether or not they or their kin were removed to the camp; some sometimes fled examination entirely. This, rather than reports of blackmail, was seen as the most damaging outcome of gland-feelers’ work, wholly contrary to the sleeping sickness campaign’s designs and desires. Flight from the camp at Kigarama occurred regularly, but was typically a slow trickle of a few people in a given month – worrisome, but taken on board by camp doctors as a matter of course. When, in the latter half of the campaign, leaving the camp or refusing to return for scheduled injections with atoxyl became more commonplace, Kudicke could, at the very least, understand why – the promised cure proved ultimately detrimental. Entirely different was the departure of entire families or villages after an examination visit. Early in 1909, gland-feelers had circulated in western Kiziba, followed by a junior German officer’s tour through the area; many tapped for further examination did not turn up. Of those, nearly half “emigrated with their families and all their possessions to British territory, according to the katikiros of the relevant districts. With the long duration of treatment, it seems to have come into discredit among the natives.”⁸⁸ In July 1909, Dr. Ullrich reported of kingdoms near Kiziba that the “constant presence of a gland-feeler had led to agitation in the population, with the consequence of a migration in part of entire families...over the British border.”⁸⁹ Reports of similar movements across the Uganda border came in from the campaign on the eastern coast of the lake as well.⁹⁰ Flight across the

⁸⁵ Lwamgira, *History*, 138.

⁸⁶ Rehse, *Kiziba*, 110-13, 115-16.

⁸⁷ Schoenbrun, “Conjuring the Modern.”

⁸⁸ BArch R 1001/5901, G. Ullrich, Report, 31 Mar. 1909.

⁸⁹ BArch R 1001/5903, G. Ullrich, Report, 1 Jul. 1909.

⁹⁰ BArch R 1001/5899, B. Eckard, Report, 1 Apr. 1909.

arbitrarily-drawn colonial border presented an administrative problem, triggered by precisely the auxiliaries whose deployment was intended to make such departures less likely. But this is also in line with colonial readings of border-crossing that saw historical, sustained African mobility across the Kagera River as uncontrolled or illicit migration, as people in the wrong place. In this case, areas of the kingdoms of Buddu and Kiziba lay on both sides of the administrative border between British Uganda and German East Africa, rendering the colonial border less important, and travel between the areas occurred frequently.

What people in the countryside may have known or heard about what went on at Kigarama affected how they received gland-feelers who circulated among their villages and farms. Doctors acknowledged that rumors circulated in Kiziba and Buddu about procedures and treatments at the camp, though they provided only the vaguest details in reports to their colonial superiors.⁹¹ German mention of Ziba rumors only hints at the production of Ziba narratives about medical treatments at the camp that ran counter to those of beneficence and good intentions articulated by the Germans. Regardless, the ramifications of suspicion and diagnosis would have been well-known, two years into the campaign. Being found by a gland-feeler and taken into the camp system ostensibly meant adherence to a months-long regimen of injection with atoxyl (and other drugs, some of them experimental). While atoxyl had seemed to offer some relief from symptoms of trypanosomiasis initially, this improvement was not durable and came with serious side effects, notably blindness. German doctors, aware that trypanosomes could develop resistance to atoxyl and cognizant of established connections between atoxyl treatments and blindness, were not of one mind about the meaning of treatment at the camp, nor how to respond to it. Ullrich linked simply the “duration of treatment” to the serious discredit of gland-feelers among the Ziba population.⁹² However, Ullrich still urged Mutahangarwa to have the kingdom searched once again by former gland-feelers from Kigarama, at a premium of 3 Rupees per sick person. People were hiding from investigation, Ullrich believed, and doing so very effectively. The six gland-feelers sent out under the auspices of Ullrich and Mutahangarwa discovered, in a month of work, only one sick person.⁹³ The dearth of new cases was not a matter of Ziba auxiliaries’ effort. In avoiding gland-feelers, people in the Haya kingdoms effectively rejected the camp at Kigarama. Kudicke, who had initiated their training, returned after an eighteen month furlough to find the local situation in a shambles, the trust of the population “gravely unsettled.” To Kudicke, it was no wonder:

The grounds for this mistrust are of many different varieties: the people have seen that a great portion of the sick, who they themselves did not recognize as sick, deteriorated and died despite treatment. They have seen that almost all of the people who considered themselves sick – patients in the third stage – still could not be saved from death. They have lastly observed in many cases that sick people, who at the end of treatment found themselves in good condition, in the course of observation declined and in many cases perished shortly after being admitted again [to the camp]. It is hardly astonishing that these observations in many cases were interpreted in the sense that people first got sick

⁹¹ BArch R 1001/5898, R. Kudicke, “Bericht über die Bekämpfung der Schlafkrankheit im Bezirk Bukoba 1. Mai bis 31. Juli 1908,” undated 1908, 2; see J. N. Tappan, “Blood Work and Rumors of Blood: Nutritional Research and Insurrection in Buganda, 1938-1952,” *International Journal of African Historical Studies* (forthcoming Spring 2013). I am here concerned with the “procedures and technologies” of colonial medicine, about which both Europeans and Africans spoke and wrote, rather than “reconstructing...the vocabulary in which medical care was both negotiated and undermined,” per L. White, “They could Make Their Victims Dull’: Genders and Genres, Fantasies and Cures in Colonial Southern Uganda,” *American Historical Review* 100:5 (1995), 1381. See L. White, *Speaking with Vampires: Rumor and History in Colonial Africa*, (University of California Press: Berkeley, 2000); Hunt, *Colonial Lexicon*, ch. 2, “Doctors and Airplanes.”

⁹² BArch R 1001/5903, G. Ullrich, Report, 1 Jul. 1909.

⁹³ BArch R 1001/5901, G. Ullrich, Report, 31 Mar. 1909.

in the camp and that upon people's death the treatment or taking of blood was to blame, not the sickness.⁹⁴

In light of this, Kudicke decided to discontinue the deployment of gland-feelers in late 1910. Their searches in Kiziba were "on the whole, fruitless" and the inhabitants of Kiziba had been making things difficult in recent years.⁹⁵ At least two troublesome patients had been transferred from Kigarama to the station at Bukoba, appearing in a quarterly report in early 1911 as having refused treatment and spread false rumors.⁹⁶

Kudicke's decision to discontinue the use of Ziba auxiliaries was made with the stability and future of the sleeping sickness campaign in mind, and, apparently, with some genuine concern about the turn that things had taken. But however Ziba responses to gland-feelers and understandings of camp medicine were understood by colonial authorities, they undoubtedly had ramifications for local politics as well. Mutahangarwa had remained involved in the use of gland-feelers in Kiziba at least through late 1909, as they were deployed and then withdrawn from regular work in the kingdoms. Repercussions for relations between Ziba rulers and the broader population demonstrate that auxiliaries were associated with both king and camp at once. Trouble for the camp therefore meant trouble for Mutahangarwa. By late 1910, Kudicke commented that "the measures of sleeping sickness campaign do not find the same support from the side of Sultan Mutahangarwa and his katikiros as before." Kudicke discussed the matter with "katikiros" – the king's ministers or perhaps, here, village chiefs – and learned that people with sleeping sickness living in the villages had "emancipated themselves from the authority of the katikiros more than was good."⁹⁷ Importantly, these people who sought to emancipate themselves from traditional authority were not untreated cases of sleeping sickness still at home, but rather those who had been diagnosed, treated, and released after a completed course of treatment.

How might a person's time at the camp lead to strife in village life? Diagnosis carried with it, on the one hand, the serious consequence of being brought into the purview of colonial medicine – removal from one's home, internment, and injections. On the other hand, positive diagnosis after identification by a gland-feeler also brought people into the camp system, where food, sleeping mats, and treatment was available, and where relatives might gain access to small plots of land adjacent to the camp to cultivate for food for the sick and themselves.⁹⁸ Amid an epidemic that would have impacted individual households as well as wider networks of social support, potentially affecting access to food and other necessities, the camp was an alternative source for these essentials. Mutahangarwa was intimately associated with the camp from its beginnings, a closeness reinforced by the employment of young men of the court, dispersed into the villages. Auxiliaries were a way to continue to connect his own political power with the new forms of healing and new economic activity driven by the camp at Kigarama. But a close association between Mutahangarwa's established political power and the new activities of the colonial medical officers at Kigarama also came with several possibilities for risk to royal power. Traditional royal responsibilities might be supplanted by the camp's activity, as Kigarama might serve as a means to access resources in times of want or stress that could have, in previous years, been solely redirected by royal authority. Attachment to the camp would diminish claims, and perhaps ultimately dependence, on royal generosity. Another risk was that people would connect Mutahangarwa with debility and death at the camp, based on his initial support for it, undermining the stability of royal power. Precisely what motivated Mutahangarwa to withdraw his support from the camp and gland-feelers' continued searches for the sick is unclear. The shift certainly involved political calculations that weighed the

⁹⁴ BArch R1001/5905, R. Kudicke, Report, 25 Oct. 1910.

⁹⁵ BArch R1001/5905, R. Kudicke, Report, 25 Oct. 1910.

⁹⁶ BArch R 1001/5906, Lappe, Report, 1 Jan. 1911.

⁹⁷ BArch R1001/5905, R. Kudicke, Report, 25 Oct. 1910.

⁹⁸ BArch R 1101/5897, R. Kudicke, Report, 13 May 1908.

importance of cooperation with the sleeping sickness campaign for his relationship with German colonial authorities against the importance of the stability and legitimacy of royal power among his people in Kiziba.

Though no longer deployed to search independently for the sick among the people of Kiziba and the Bukoba residency with any regularity, gland-feelers remained posted at the region's primary ferry, at key crossings of marshes, or along main roads until the outbreak of World War I. A few of the men trained at Kigarama by Kudicke went on to work for the sleeping sickness campaign at Lake Tanganyika, searching for hidden cases of sleeping sickness in communities on the coastal lowlands beginning in 1912.⁹⁹ These gland-feelers circulated from sleeping sickness camps along Lake Tanganyika, working within a network of surveillance and treatment much denser than at Lake Victoria; six camps dotted the 240 km shoreline at regular intervals, contrasting with the three camps on the entire German-claimed shore of Lake Victoria. This density of activity was chiefly because fly vectors were present on the coastal lowlands of Tanganyika to spread the disease and because migration with the Congolese shore of the lake, where sleeping sickness was also prevalent, was near constant and nearly impossible to limit in a meaningful way. Now known primarily as "Bukoba boys" – in contrast to auxiliaries from the area – these select gland-feelers trained at Kigarama became colonial functionaries of a different sort, their conduct apparently reliable and their skills valuable to European doctors.¹⁰⁰ Colonial officers no longer hoped to trade on the local resonance of their social status or capitalize on their intimate familiarity with the landscape to be searched, rather use their experience in identifying suspicious potential cases of sleeping sickness to extend the campaign's reach into populations in German Urundi.

CONCLUSION

Epidemic sleeping sickness and the colonial public health interventions that developed in answer to it meshed with political, social, and economic change in Kiziba, change that played out as Ziba reckoned with the camp at Kigarama and engaged with gland-feelers. Ziba gland-feelers and their work played a dynamic role in this productive, contentious time, offering new insight into making of an early colonial society before World War I. The history of Ziba medical auxiliaries employed by German doctors during the sleeping sickness campaign provides a view into the complexity of decisions made by people contending with new assertions of colonial power and biomedical claims to heal and cure. Collaborative relationships that appear in the colonial archive as straightforward recruitments and regular economic transactions are revealed to hinge on considerations of political expediency and evaluations of personal or familial gain and loss. Historical social structures such as the *muteko* age-sets transcended but also shaped the nature of both the cohort of gland-feelers and the work that they did.

Gland-feelers tested Ziba communities' tolerance for colonial public health interventions and changed the nature of new economic exchanges centered on the discovery and delivery of people infected with sleeping sickness. Ziba communities' response to gland-feelers and to the Kigarama camp spilled over to impact relations between the kingdom and the *mukama*. Gland-feelers forced the Ziba king to re-evaluate his engagement with colonial authority and his support for public health interventions, while also triggering a re-assessment of the efficacy of those interventions by colonial medical officers within the German campaign. Gland-feelers also embodied Ziba royal power in a time of transition, as interest in modernization met with traditional bases of legitimacy and political hierarchies. An experiment in colonial public health

⁹⁹ BArch R 1001/5909, B. Eckard, Report, 1 Apr. 1912; BArch R 1001/5909, Vorwerk, Report, 4 Jul. 1912; BArch R 1001/5908, B. Eckard, Report, 1 Oct. 1911, 2-3.

¹⁰⁰ J. Rich, "Searching for Success: Boys, Family Aspirations, and Opportunities in Gabon, ca. 1900-1940," *Journal of Family History* 35, no. 1 (2010), 9.

tactics, Ziba auxiliaries remained men with their own agendas, capable of troubling matters of politics and health in a way the neither colonial authorities nor the Ziba court anticipated.