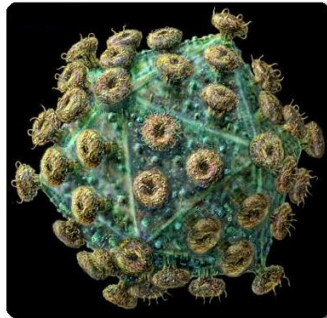


Salmen, Charles 2009. "Towards an Anthropology of Organic Health: The Relational Fields of HIV/AIDS among the Suba of Lake Victoria". Distinguished Masters Dissertation, Oxford Institute of Social and Cultural Anthropology. Chapter 1

Introduction:

The smallest AIDS virus takes you from sex to the unconscious, then to Africa, tissue cultures, DNA and San Francisco, but the analysts, thinkers, journalists and decision-makers will slice the delicate network traced by the virus for you into tidy compartments where you will find only science, only economy, only social phenomena, only local news, only sentiment, only sex....To shuttle back and forth, we rely on the notion of translation, or network. More supple than the notion of system, more historical than the notion of structure, more empirical than the notion of complexity, the idea of network is the Ariadne's thread of these interwoven stories.

-Bruno Latour,, from *We Have Never Been Modern*.



✱

In the decades since the inception of our discipline, medical anthropology has contributed a diverse corpus of ethnographic research blurring the lines between the biological, social, and ecological factors that shape wellbeing and sickness. Yet, within the biomedical institutions that direct global health today, disease and health continue to be understood primarily in physiological terms. Numerous compelling arguments for *biocultural* synthesis continue to fall on deaf ears due in large part, I assert, to the axiomatic notion in biomedicine that an individual human being represents a discrete organism. An emerging consortium of anthropologists, systems biologists, and human ecologists, however, suggest that the distinction between human organism and human ecosystem is inherently ambiguous. Moreover, many cultures continue to disavow Westernized distinctions between person, society, and the environment. Whereas biomedical systems speak of infectious disease primarily, and often exclusively, in terms of invasion of the physical body by microscopic pathogens, many ethno-medical frameworks

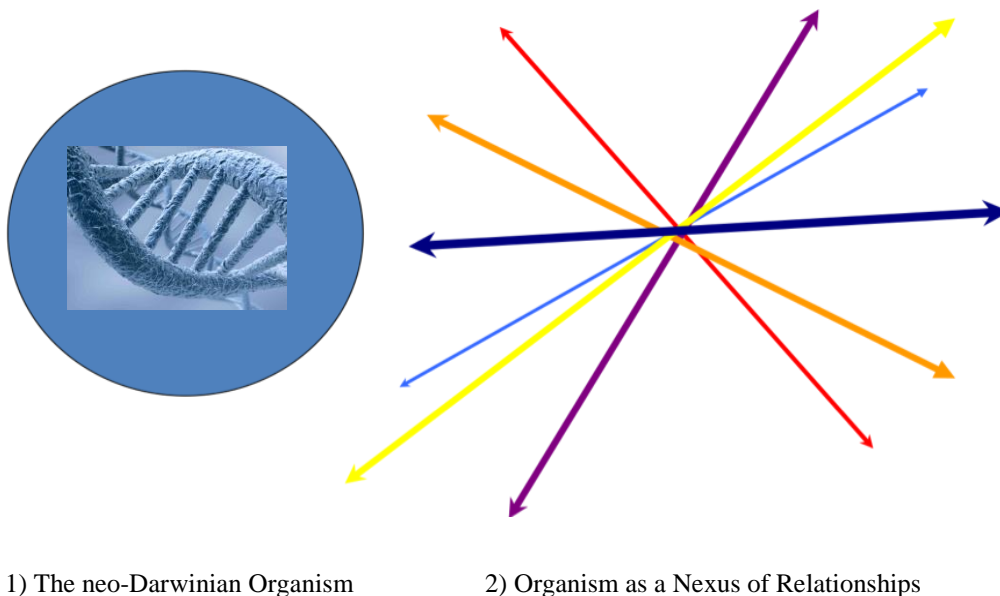
✱ Electron Microscope Image of the Human Immunodeficiency Virus.

understand disease in terms of relationships with broader social, environmental, and even cosmic forces. In our rapidly transitioning world, where powerful socio-economic forces and deteriorating ecosystems contribute to illness as much as any pathogen, its time for biomedicine to take a lesson from these indigenous insights: diseases do not occur merely inside the containers of our skin, they ripple through an organic web of social and ecological relationships.

In his essay, “An Anthropologist Looks at Biology,” Tim Ingold argues that rather than conceptualizing an organism as bounded physical entity coded by genes, we should recognize an organism as a *nexus* in a field of relationships (see Figure 1). This landmark piece introduced the paradigm of “relational thinking” that has shaped much of Ingold’s work:

What we need is a quite different way of thinking about organisms and their environments. I call this ‘relational thinking.’ It means treating the organism not as a discrete pre-specified entity but as a particular *locus* of growth and development within a continuous field of relationships. It is a field that unfolds in the life activities of organisms and that is enfolded in the specific morphologies, powers of movement and capacities of awareness and response. (Ingold 2004, 219).

Figure 1: What is an Organism?



While Ingold’s thesis has made important contributions to evolutionary arguments against the dominance of neo-Darwinian discourse (Ingold 1990; 2000; 2004), as well as social anthropological discussions of embodiment (Sharma 1996; Overton 2008), “relational thinking” has remained largely underutilized by medical anthropologists in their analyses of health and disease. In this dissertation, I argue that relational thinking should be recognized as an important

theoretical attitude for integrating biological, social, and ecological “determinants” of health. Recognizing the human organism as the localized enfolding of dynamic fields of relationships allows us to develop more holistic pictures of emerging disease patterns and designate new responsibilities for medical practitioners. In order to effectively prevent and treat disease, I argue that medical practitioners must address the status of a patient’s organic fields, in other words, the microbial, inter-personal, and ecological webs of exchange that constitute the substance and meaning of being sick versus being healthy. Relational thinking allows us to explore the *parasitic* interactions that comprise disease and the *symbiotic* connections that substantiate our wellbeing. Particularly in the context of infectious disease, we must appreciate that sickness represents more than a pathogen inside a body; an infectious epidemic is a nexus of biological, social, and ecological pathologies.

To qualify this conceptual approach, I rely on relational thinking to flesh out an ethnographic illustration of a pathogenic “field of relationships” that is enfolded within the bodies of people in the remote island communities of Lake Victoria and that continues to unfold along these shores in Western Kenya; a field commonly recognized as *HIV/AIDS*. I argue that relational thinking is an essential tool to provide a more comprehensive picture of the HIV epidemic in Sub-Saharan Africa.

In the first chapter, I comment briefly on the historical and contemporary context of the Suba people of Mfangano Island and the evolution of my fieldwork among these remote island communities. In the second chapter, I explore theoretical issues surrounding the definition of *organisms* and *organic* life, utilizing relational thinking to expand the biomedical notions of health beyond biology. In chapters three and four, I apply these conceptual frames to an ethnographic illustration of the relational fields of HIV/AIDS among the Suba, looking first into the enfolding of ecological relationships and continuing with a discussion of enfolded social relationships. Finally, I conclude with brief discussion of what relational thinking entails in terms of organic health responses for the 21st century.

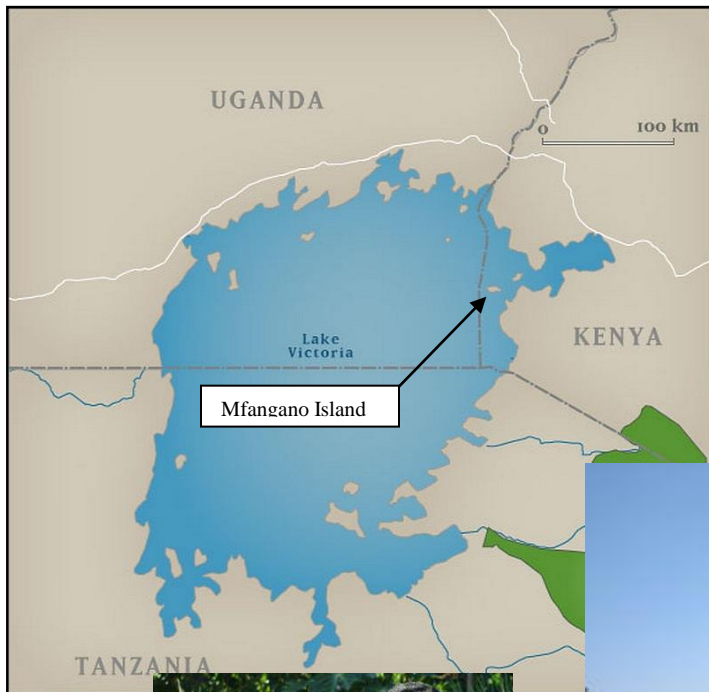
More personally, this dissertation is an account of human immunodeficiency virus among my friends in the communities of Mfangano Island and an idea for a unique health initiative that has brought me into their lives. From 2007 to 2009, I traveled to Mfangano Island four times, while living and working in Kenya for a total of nearly nine months. To be sure, my involvement on Mfangano should be categorized as action research. Through my connections at Oxford

University and various HIV/AIDS organizations in Kenya, I have begun working with two villages on Mfangano to design a community-based HIV testing and treatment support facility called the *Ekialo Kiona Center*. Through the process of programmatic needs assessments and ethnographic research, I participated in dozens of informal conversations, interviews and small group discussions with a broad range of actors including farmers, fishermen, housewives, boat builders, students, Beach Management Unit leaders, clan elders, traditional healers, Legio Maria “prophets,” nurses, AIDS patients, and volunteer health workers, the Suba District Ministry of Health Medical Officer and staff, country directors of national HIV/AIDS treatment and prevention organizations in Nairobi, and the former Kenyan Minister of Health. As my association with the Suba evolved, arriving first as a temporary field-hand, returning as a grassroots volunteer, and finally delving into their lives as an ethnographer, I found myself thoroughly enmeshed in the webs of HIV/AIDS, poverty, local politics, and the development process on Mfangano. Situating my own narrative—a very minor thread within this story to be sure—is important at the onset to qualify the methodology of activism that substantiates my participation in Kenya as an HIV/AIDS advocate, student of anthropology, and aspiring physician; in other words, the perspective from my *locus* in the field.

Chapter 1: My Locus in the Field

My grandfather was the first to plant mango seeds on Mfangano Island. There is an old fear among the Suba that when a man plants a new type of tree, his life will end when the first fruit ripens. My grandfather assumed this risk so that our people here could grow mangos. Today my family is still respected around the island for this reason. If you are talking to me about a new type of seed, I am not afraid to plant it.

- Magioki Oguta, Organic farmer at Kitawi Beach, Mfangano Island.



♣

At the Cross Roads on Mfangano Island

♣ Child washing dishes at Sena Beach, young fisherman at Chwera Chwera Beach, and Magioki Oguta overlooking his fields at Kitawi Beach (Mfangano Island 2008)

The history of the Suba communities on Mfangano Island is a history of intersection. Their oral record articulates the geographical convergence thirteen generations ago of the eastward flight of the Abakunta clans from present-day Uganda and the southward migration of the Luo from present-day Sudan. The story of the Nile Perch fishing industry that dominates the economic life of these island communities today illustrates the interchange of neoliberal development practices and careless ecological policy along the shores of Lake Victoria over the past fifty years. Most importantly, the epidemiological background of HIV among Suba populations today reflects the dramatic confluence of thousands of migrant fisherman, rigid gender inequities, globalized exploitation, interfamilial competition, and intense poverty. This is a dissertation is about an organic nexus, about the *relationships, connections, and intersections* that constitute HIV/AIDS among the Suba. It is only appropriate then, that my own relationship with the Suba begins with a remote internet connection and a serendipitous crossing of paths at a bus stop in Western Kenya.

On July 29th, 2007, I stepped off a *matatu* (minibus) in the small city of Homa Bay with a dusty backpack and sore legs. My traveling companion, a friend from my childhood in Colorado, suggested a cold soda and we headed down the potholed main street for a ubiquitous bottle of Coke. I had just spent the previous five months working with an HIV/AIDS treatment and prevention program called AMPATH based out of Eldoret, a city six hours northeast of our current pit stop. As a research associate in the Community Mobilization Department, I shadowed physicians on the overcrowded wards of Moi Teaching and Referral Hospital, participated in public health planning discussions, assisted mobile testing campaigns in remote villages, and collected narratives in the homes of dozens of HIV+ Kenyans. After a challenging and inspiring five months, I was excited to hit the road and travel. I had five free weeks before I had to start my degree in Medical Anthropology at Oxford University. My friend and I had outlined an ambitious backpacking itinerary from Eldoret all the way to Cape Town, South Africa. Like so many other young Western travelers, we were ready for our experience in the great African adventure park. Our southward journey ended however that afternoon.

Out of the bus stage and down the road, we spotted two young *wazungu* (white people, lit. “wanderers”) beside the only hardware store in Homa Bay. We assumed they were travelers like us; we learned that they were in fact new residents of Kenya. They explained to us that they had just moved to Kenya from the US to start a sustainable agriculture project with two Kenyans

they had met over the internet. They were in Homa Bay on a “re-supply mission;” the boxes of nails, spades, and a teething yellow puppy at their feet confirmed this for us. Without much discussion we accepted their invitation to come check out their farm on “an island in the middle of Lake Victoria.” A half hour later we piled onto another crowded bus, this time bound for the fishing village of Mbita Point located, according to our copy of the *Lonely Planet*, at the spot where the Kavirondo Gulf meets the main body of Lake Victoria.

We reached Mbita at nightfall and hired three motorcycle taxis. In the dark, we rode across a rocky causeway to nearby Rusinga Island to the home of their Kenyan partner, a thirty-year old Suba entrepreneur named Richard Magerenge. A year later at Oxford, touched by the excitement that lights up anthropologists turning old pages in dark libraries, I would learn that eleven generations ago, Magerenge was a great leader of the Wagimbe clan on the western tip of Mfangano Island and one of the first chiefs to consolidate Suba power (Ayot 1979, 90). That night over a meal of *ugali* and *sikumu wiki*, Richard connected the dots of a more recent history—one relating to a new disease, new promises of “Development,” and a new kind of agriculture called “organic.”

When he was thirteen, Richard’s mother began suffering from an inexplicable wasting illness. When the rumors started around 1994 they decided to move across the bay to Rusinga Island from their home on Mfangano; some said she was bewitched, others said she was afflicted with a condition known for generations among the Luo as *chira*. She died quickly on Rusinga, and Richard was sent to Mombasa where his father had found work. Yet his father soon began to waste away as well. When he died in 1997, whispers in the community included new Swahili terms: *UKIMWI* (AIDS) or *virusi* (the virus).

Richard returned to his relatives on Rusinga to complete high school and started working with a group of young activists; they called themselves the Lake Victoria Youth Group. Through the funds they raised, Richard earned an opportunity for a training workshop in Nairobi in Voluntary HIV Counseling and Testing (VCT). At that workshop, he met another counselor and his future wife, Ruth. When they eventually married they rented a home on Rusinga, and the youth group nominated Richard to receive additional training in computers from a new information technology program in Mbita. With a bit of digital literacy, his new VCT credentials, and a world of questions, Richard was able to sneak onto the computers at of an non-governmental organization (NGO) in Mbita, to “surf the net.”

Navigating the web, Richard was attracted to a series of websites regarding the Organic Agriculture movement in the US. He was excited to realize that the cultivation techniques these websites described were not radically different from the techniques his family had been using for generations. Long before the introduction of chemical pesticides and fertilizers in Africa, people on Mfangano Island had relied on manure and a variety of local herbicides to maintain their sorghum, maize, cassava, and sweet potato crops. Richard began talking to his uncle back on Mfangano, a man named Magioki Oguta, about fully converting their family farm and registering it on the World Wide Opportunities on Organic Farms website (www.woof.org). Joel agreed to try this idea, and in 2005 they began converting their plot at Kitawi Beach. In 2006, Adam Sewall and Lauren Friedman, two students at Evergreen College in Washington, came across Richard's online post. Through a series of emails they decided that Mfangano Island was the right place to realize a long-held vision for a "sustainable life." They saved up money for a year and joined Richard and Magioki in Kenya three months before our chance encounter in Homa Bay.

That next morning in Mbita we loaded up with supplies at the sprawling market on the causeway—beans, avocados, matches, toilet paper, and a bottle of whiskey. We boarded a long wooden outboard canoe waiting on the crowded beach, and departed for the 3-hour ride to Mfangano Island. Our boat was filled with three dozen passengers, piles of lumber, stacks of iron roofing sheets, crates of white bread and yellow jugs of cooking oil, and a bicycle frame lashed to the bow. As we neared the hazy shoreline of Mfangano, Adam pointed out the silhouette of a gnarled fig tree on the southeast corner of the island, "that's Kitawi beach, the big tree is on Magioki's farm." I would soon learn that twelve generations ago, a woman named Kitawi, the first wife of Mwembe, one of the original Abakunta leaders to reach Mfangano (Ayot 1979, 17), was buried under the fig tree that still stands on my friend's farm.

Abakunta is derived from the Buganda verb *okukunta*- "to run away madly" (Ogot 1967, 213). The majority of the Suba of Mfangano today are descendents of the Abakunta, a collection of Buganda clans who fled across Lake Victoria after their participation in the assassination of Kabaka Junju, the 26th King of the Buganda, near the middle of the 18th century (Kenny 1977). While it certainly is true that today the "Basuba are spuriously unified under a common name which subsumes a number of lineage-based groups of diverse geographical and temporal origins"

(Kenny 1977, 277), the killing of King Junju and the flight of the Abakunta from Uganda is the predominate theme in the oral history of the people I came to know at Kitawi Beach.

According to Suba oral history, King Junju of Uganda was killed by his brother Semakookiro with the help of two warriors, Witewe and Kiboye, of the Wakula clan. (Kenny 1977, 278; Ayot 1979, 4). Historian Henry Ayot, using 23 years as a mean length of generation, calculates the date of this regicide around 1760 (ibid, 4). Semakookiro assumed his brother's throne, and seeking to tie-up loose ends, called a secret war council to eliminate Witewe and Kiboye. Fortunately for the Wakula, a young court drummer named Mwembe overheard the Machiavellian scheme and warned Witewe and Kiboye. That same night, the three of them loaded up their canoes and fled with their families and possessions (ibid 4). The Wakula sailed east along the Northern shore of Lake Victoria, warning relatives along the way and sparking an exodus of numerous clans who feared the wrath of Semakookiro. These clans dispersed across the Lake, landing on Mfangano and Rusinga Islands and the western shoreline of present day Nyanza Province in Kenya. Two and a half centuries later, in my own conversations at the local boatyard with a retired chief, I learned that Mwembe and his wife Kitawi ultimately settled in Wakinga, at the same beach where I first set feet on Mfangano.

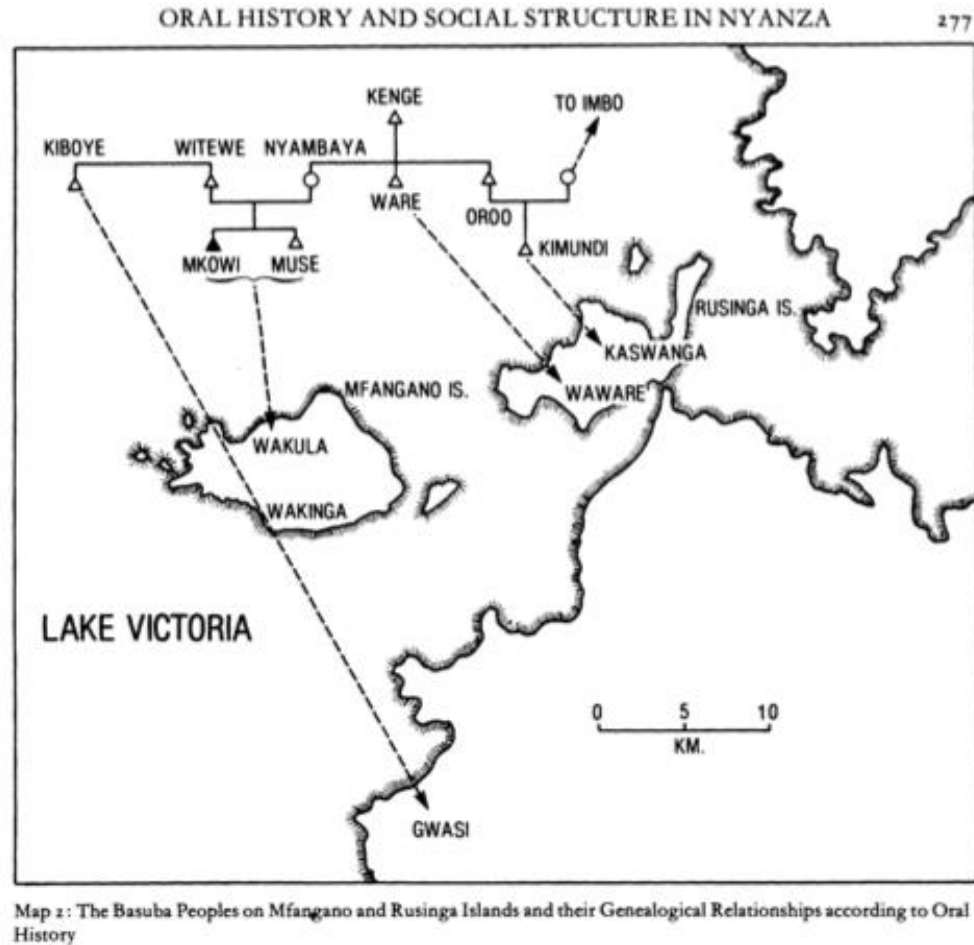


Figure 2: Settlement of the Abakunta Clans: (Kenny 1977, 277)

Today, Mfangano Island is home to just over 19,000 Suba and Luo people (Chief's Camp Statistics 2008). The green landscape is dominated by the towering Soklo mountain and inhabited with vervet monkeys, fish eagles, and giant monitor lizards. Fishing, subsistence farming, and boatbuilding remain primary occupations for the majority of residents, as they have for hundreds of years. The remote villages that line the shore of Mfangano function with no electricity, a single dirt track road, and severely limited medical infrastructure. We had planned to spend a night on Mfangano before continuing on our journey. We ended up staying for ten days, and the truth is I haven't yet been able to leave Mfangano behind. Over the next year and a half I would return to Mfangano on three separate fieldtrips: December 2007, July-September 2008, and December 2008-January 2009.

That first week we stomped the foot-pump and helped transplant tomato seedlings on Magioki's farm. We sat with Magioki's children on the rocky hillside above his cornfields with piles of stones, on patrol for the troupes of monkeys that descend from the mountain to devour unguarded crops. In the evenings, we braved the schistosomiasis infested waters our guide book had warned us about, and bathed beside groups of young fishermen pulling fine-meshed *gogo* nets. We ate big meals prepared by Magioki's wife, Eve, and stayed up late under their tin roof discussing Bible verses, and witches, and spirit *jajuok otieno* ("night-runners"). Magioki and Richard caught my attention one of these late nights when they described the symptoms of that mysterious wasting sickness known on Mfangano by the Duluo word *chira*. It would be another year before I'd come across the work of Luo ethnographers such as Hans-Egil Hauge, who writes that "chira is not exactly an illness, but a wasting away" (Hauge 1974, 70), and David Parkin who explains that chira "refers to a wasting disease, sometimes culminating in death, which a victim or someone close to the victim has incurred through ignoring (not necessarily consciously) some kind of relationship taboo" (Parkin 1978, 149). These anthropologists documented *chira* knowledge and practice among the Luo over 30 years ago, long before the discovery of HIV. With my friends on Mfangano, I began to realize the cultural importance of this Luo illness framework in a contemporary context of HIV/AIDS. Moreover, as I encountered Ingold's discussion of "sentient ecology" (Ingold 2000) and Elisabeth Hsu's arguments for recognition of the "body ecologic" (Hsu 2007), *chira* crystallized as a living example of a remarkably insightful indigenous commentary on infectious disease.

Thanks to generations of intermarriage with the Luo clans who came to populate the mainland to the east, the vast majority of the Suba came to speak fluent Western Nilotic Duluo and assume inherited Luo beliefs and customs. This has led many African historians and anthropologists to describe the Basuba as a Luo sub-group: the "Luo-Abasuba" (Ogot 1967; Ayot 1979). Yet among my friends on Mfangano, I perceived a vocal and urgent assertion of Suba identity:

We are Subas. There was a time when everyone forgot this, including many of us. They called us Luo-Abasubas or just Luos. We have been marrying out for many years, and we are fewer now. But we are Subas! (Conversation with CK 2008).

In a 1992 book called *Language Death*, Franz Rottland and Duncan Okoth Okombo describe Suba as an endangered Bantu language. They discuss the impact of centuries of

“Luoization”, intense Christian missionary work, and a British colonial administration that prioritized Duluo, Swahili and English along Lake Victoria and effectively marginalized and isolated the Suba language.

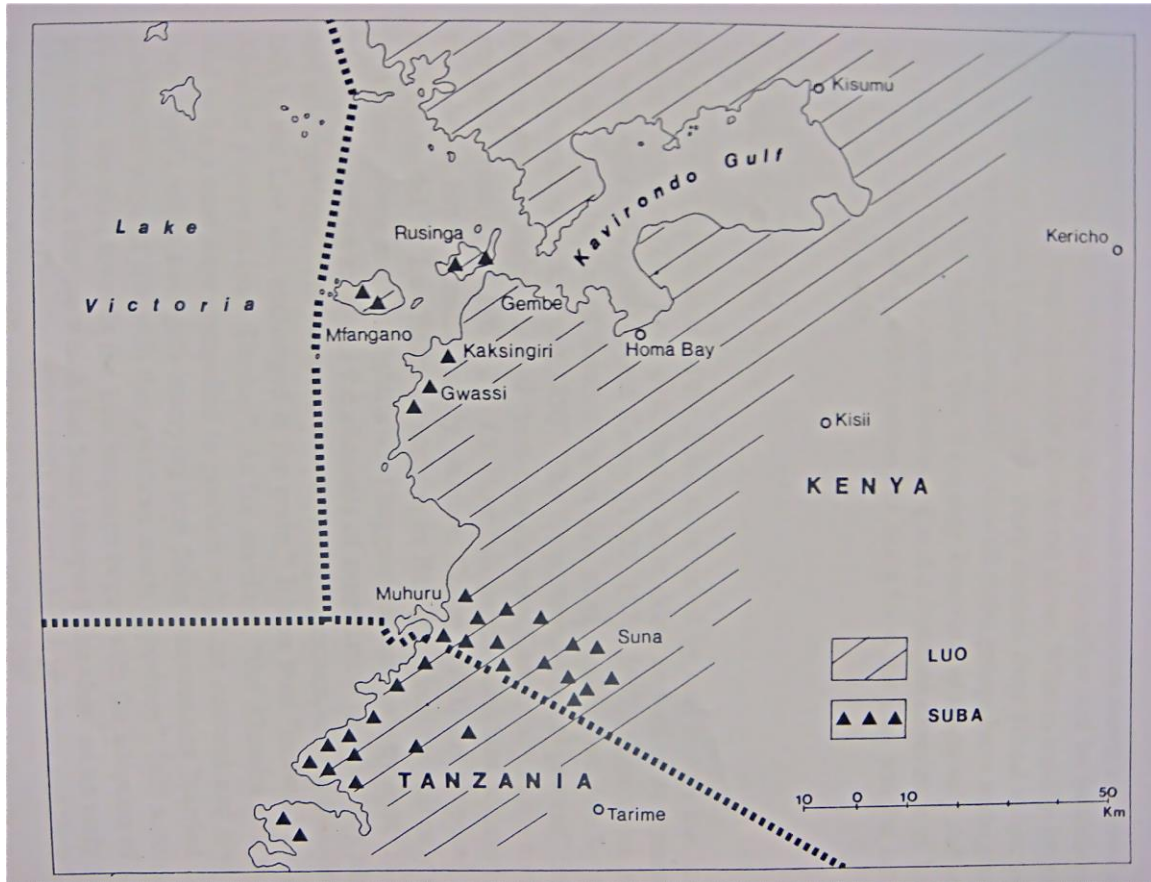


Figure 3: Suba Speakers on Lake Victoria: (Rottland and Okombo 1992, 278)

Yet, the factors outlined by Rotland and Okombo are not the only reasons that the Suba language is disappearing today. Of the roughly 200,000 people within Suba District today, recent estimates indicate that over one third are infected with HIV (Suba District Strategic Plan 2005; NASCOP 2006). Mfangano Island in particular remains one of the few places on the planet with first-language Suba speakers, yet few places have been hit harder by HIV/AIDS.

In the past twenty years, the clans of Mfangano Island have experienced the loss of an entire generation. The burden of orphans weighs on every compound. The disintegration of families has not only weakened the social structures that have supported Suba society for centuries, but the pressure of this epidemic is forcing these communities to make dangerous changes to their island ecosystem in order to squeeze out enough to survive. In my short time on

Mfangano, it became clear that the roots and consequences of this epidemic extend far beyond its “causative” virus.

Any sexually transmitted infection is, by definition, a disease of social relationships; yet the field of relationships that constitutes HIV/AIDS on Mfangano involves much more than sex. Michael Kenny argues that among the Basuba, the distinction between kinship affiliation versus political alliance is maintained through the transmission of an oral history that accentuates stories of cooperation between “related” clans and episodes of conflict between “unrelated” clans (Kenny 1977). On Mfangano, relationships of cooperation and competition, kinship and alliance, strongly influence the trajectory of HIV/AIDS. In these communities with severely limited formal medical infrastructure, individuals rely on the strength of their social support networks for health maintenance and care. The daily politics of discord and assistance between relatives and neighbors affects not only the transmission of viruses through impoverished communities, but also the physiological health outcomes of the individuals who are infected. In this context, my friends’ candlelight accounts of witchcraft emerged as far more than folklore; they were articulating the tangible force that spells and charms have to generate sickness when social solidarity breaks down and neighbors decide to covertly seek each other’s destruction for personal gain. I came to see witchcraft as an active expression of the competition, jealousy, and rivalry that is frequently initiated in impoverished communities by the neoliberal development process (Ferguson 2006; Smith 2008), undermining collective health and isolating thousands of lonely sick people.

It became evident on Mfangano that HIV/AIDS represents both an *infectious* disease in the traditional epidemiological sense, with horizontal and vertical viral transmission through sex and breast milk, but also what I would describe as an *inductive* disease. Analogous to Christakis and Fowler’s analysis of the spread of obesity through social networks (Christakis and Fowler 2007), I began to recognize similar inductive phenomena in the way that HIV risk is communicable through small social networks on Mfangano. The presence of the virus within the body of a particular individual in a family dramatically changes resource utilization and power dynamics across numerous relationships. Connected individuals, particularly female affines, are often coerced into vulnerable situations with migrant fishermen in order to find food for children and younger siblings or pay for medical bills and school fees. Sick family members are unable to supervise adolescent behavior at the beach, or worse, forced to turn a blind eye. One male

informant in Kitenyi beach estimated that 85% of the women involved in *jaboya* (“fish-for-sex”) were women from AIDS affected households; as the sole remaining brother out of three, he himself was looking after two widows, both of whom were supporting their family with income from the beach.¹ Thus, HIV infections spread through families and communities on Mfangano, not only through direct transmission, but also by exposing the lines of financial dependence and social obligation that remain within family groups, often compelling members to make desperate choices with their bodies “down at the beach.” In this inductive context, social cohesion is a double-edged sword; AIDS, like *chira*, emerges as collective infection.

The social fields of HIV transmission on Mfangano however, are inseparably interwoven within a complex human ecology of land and water use. The integrity of these rural communities, and the physiological fitness of the human bodies that comprise them, remain fundamentally connected to the viability of the Lake Victoria ecosystem. It became difficult to distinguish the difference between social, biological, and ecological “determinants” of health. As my friends reported less and less fish in the lake upon each return trip, I began to see health correlations between the decreasing bail diameter of the fishnets used by migrant fisherman and the increasing sexual vulnerability of the local women who are forced to buy their daily catch. As the green forest receded further and further up the mountain each time I joined the kids on “monkey-patrol,” I began to recognize the intersection between nutrition insecurity and monoculture slash-and-burn maize cropping. I began to see in the lives of my friends the ways in which human health is intimately tied to the sustainability of local environments.

On my third and fourth trips to Mfangano in 2008 and 2009, I sailed with local fishermen to what I now believe are primary epicenters of HIV in Kenya; two small islands called Remba and Ringiti near the international boundary waters of Kenya, Uganda, and Tanzania. These islands, roughly 1km in diameter, have no farms, no trees, no functional latrines, nor static health facilities. Each island is home to roughly 6,000 migrant fishermen, merchants, hostlers, sex workers, and children, many of whom are orphans. On Remba and Ringiti, I spoke with people who had come from all over East Africa, from Somalia, DRC, Ethiopia, Uganda, Tanzania, and Kenya. These highly itinerant communities are supported entirely through cash from an insidious and unsustainable international fishing industry. While the ecological fields of

¹ Conversation with SO, Kitenyi Beach, Mfangano Island. Dec 27th, 2008.

HIV/AIDS on Lake Victoria are certainly complex, I came to realize that the single biggest factor behind the soaring HIV rates in this region is, in fact, a non-native species of fish called the Nile perch. On Remba and Ringiti, I began to understand the connection between the introduction of Nile perch (*lates niloticus*) to the Lake Victoria Basin by the British Colonial Administration, and the fact that the communities living on Lake Victoria today exhibit some of the highest HIV prevalences anywhere in the world (NASCOP 2005).

Against the ardent warnings of prominent ecologists, the Nile perch was systematically introduced to the lake during the 1950's as part of a coordinated international development program to generate a viable "whitefish" industry (Pringle 2005b). While it took several decades for Nile perch to establish themselves in the Lake, by the early 1980's booming stocks allowed for the expansion of a globalized industrialized fish processing chain (Johnson 2008). In terms of GDP, the program has been thorough economic success for the country of Kenya. Whereas Lake Victoria fisheries contributed to just 0.2% of Kenyan GDP between 1971 and 1981, by 1991 the industrialized processing of Nile perch represented 4.4% of monetary GDP (Crispin et al 2000). By 2006, the industry was yielding approximately 400,000-600,000 tons of Nile perch per year, 75% of which is exported to Europe, Israel and Asia, generating yearly export revenues of around \$300-400 million dollars (Johnson 2008).

Yet, despite this economic boom, the local communities that harvest this valuable resource receive the smallest share of its financial blessing. In 2007, cash paid to local fishermen and agents represented just 23% of the total value from the fishery, while processing plant owners receive 32% of the value, with 45% of the total value accruing to international seafood wholesalers and retailers (Johnson 2008, 15). In Suba District, the very heart of Kenya's Nile perch industry, I found myself surrounded by fish and young men with cash to spend. Yet, with extremely limited control of the industry or financial infrastructure for local savings and investment, Suba District remains one of most impoverished regions in Kenya, with over 40% of the population living in "absolute poverty" (Suba District Strategic Plan 2005). Omwega et al concluded that the "poverty amongst the fishers is due to lack of being capable of efficiently participating in the industry" (Omwega et al 2005, 6). Back at Oxford, as I began encountering anthropological critiques of international development agendas (Escobar 1996; Ferguson 2006; Smith 2008), I came to recognize the insidious ways in which a neoliberal Nile perch development program, rather than empowering the people of Lake Victoria, replicated and

entrenched colonial power structures of domination and economic control.

The ecological impact of the Nile perch, or *mbuta*, has been catastrophic. In less than 50 years, this voracious alien carnivore has eradicated the vast majority of native species of *haplacromis cichlids*, known locally as *furu*, that had formed the basis of the regional artisanal fishing economy for hundreds of years on Lake Victoria. At the same time, deforestation has accelerated across the Lake Victoria Basin in the face of intense demand for charcoal with which to smoke fish, and rapid urbanization from an influx of hundreds of thousands of migrant workers seeking employment in the industry. Evolutionary Ecologist Tijs Goldschmidt, whose research in Tanzania focused on the dramatic speciation of the estimated 500-plus cichlid species in the Lake Victoria “super-flock,” comments on the first signs of the giant Nile perch’s presence:

For more than a year, fishermen had been catching this introduced predatory fish in large quantities. At first they thought a monster had invaded Mwanza Gulf. The gill nets were full of enormous holes: the monster plowed right through their delicate, fine meshed nets. (Goldschmidt 1998, 10)

The truth is the networks through which these “monsters” have torn encapsulate much more than fish; in less than 50 years, the Nile perch industry has shredded the social structures, outstretched the gender dynamics, and consumed the physiological wellbeing of the people who call Lake Victoria home. Like the endangered *furu* I saw while swimming with children on Mfangano, thanks to the introduction of Nile perch, the Suba people, their language and their way of life, are in jeopardy of extinction. In apocalyptic conversations with a local fisherman and prophet-in-training in January 2009, I heard echoes of Ingold’s *sentient ecology* in the explanation for why his Catholic sect prohibits the consumption of Nile perch: “There was a Legio Maria who was a fisherman. One night he catch *mbuta* and that *mbuta* turns to be a man, and he was surprised so much. He realized there is something with this fish...there’s something wrong with *mbuta*. Something is wrong! It is a curse, a man turned into *mbuta*.”

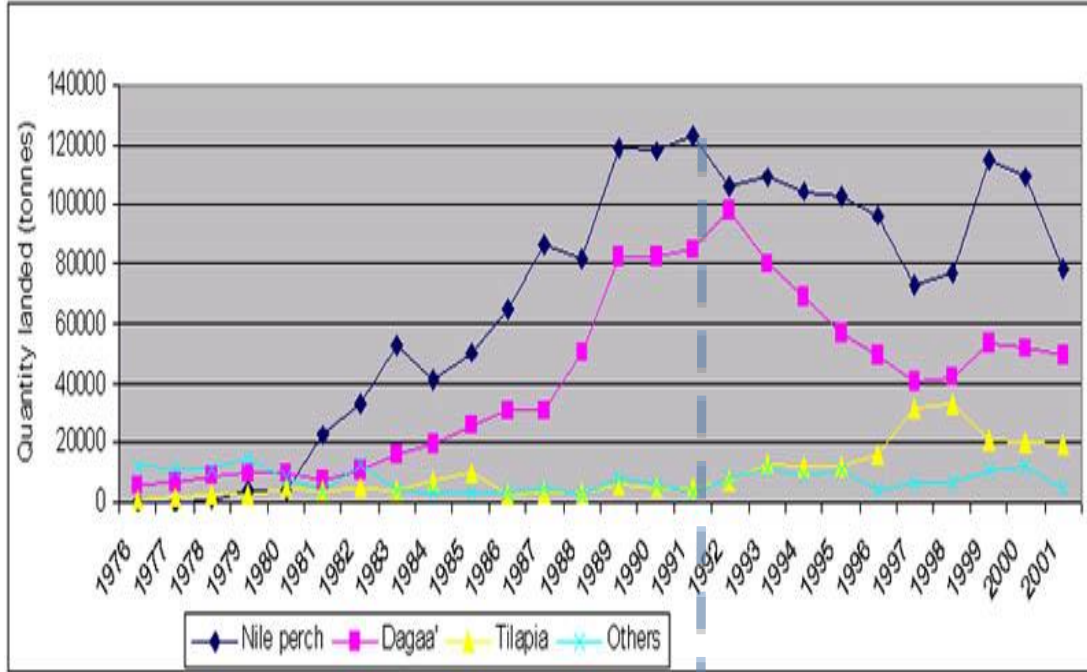


Figure 4a: Nile Perch Catch Trends in Lake Victoria, Kenya (Abila 2003)

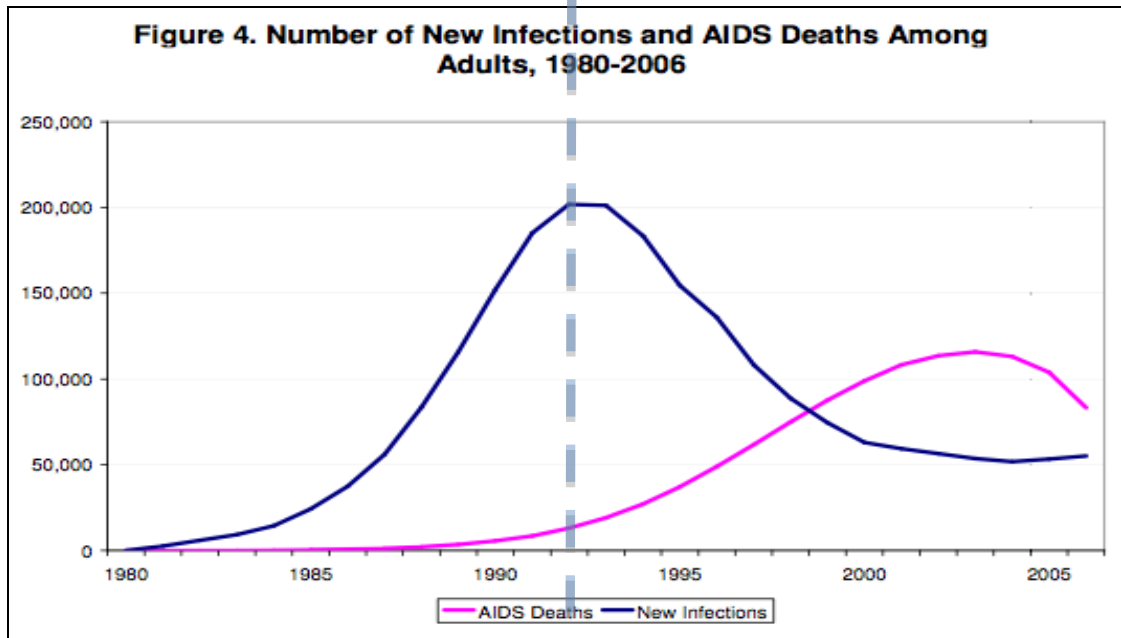


Figure 4b: New HIV Infections in Kenya (NAS COP 2007)

Far from its original promise of economic prosperity, the Nile perch program has done little to improve the quality of local lives, activating instead a powerful chain of “structural violence” (Farmer 2001; Farmer 2005) that has sickened and killed hundreds of thousands of people. The ecological disaster of the Nile perch cannot be separated from the epidemiological consequences that continue to reverberate across East Africa. The convergence of thousands of

migrant male fisherman, a cash explosion within impoverished and disempowered communities, vulnerable women and customary trade practices such as *jaboya* or “fish-for-sex,” increasing food insecurity, and a near total lack of health infrastructure has culminated in a perfect storm of HIV. In this context, I came to perceive the Nile perch industry as a “macroparasite” (Brown 1987), generating as much illness as any of the “microparasites” in the blood of these rural Kenyans.

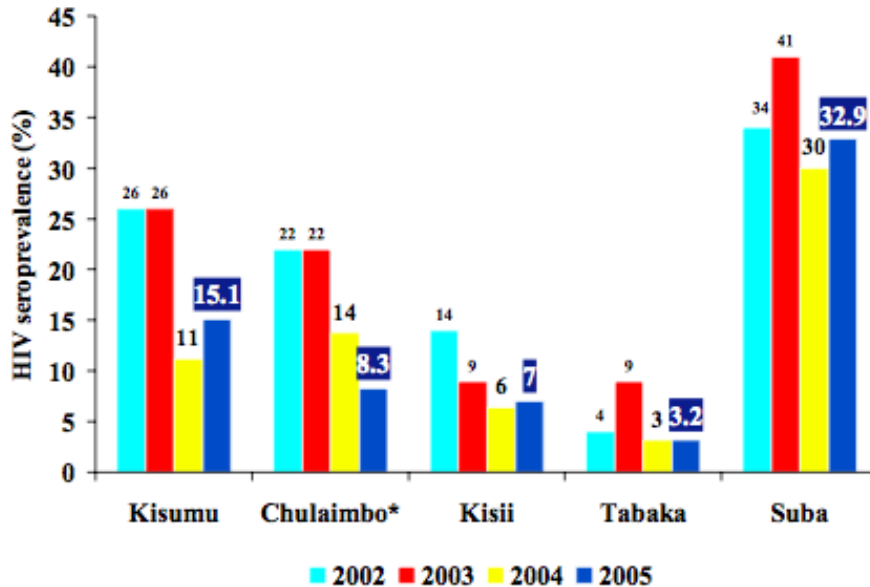


Figure 5: HIV Prevalence in Nyanza Province by District (NAS COP Sentinel Survey 2005)

As I began to perceive the breadth of this pathological field on Mfangano, relational thinking became more than an attack on neo-Darwinian reductionism, it was the only way to see health and disease. Arguments for situating the “whole-organism-in-its-environment” (Ingold 1990) were articulated to me each day in living terms; in active cholera outbreaks, in widows attempting to secure food for their children from fishermen at the beach, in hyacinth blooms on the lake and burning forests of ancient trees. Among the Suba of Lake Victoria, I came to see that if an organism is a nexus of relationships, an infectious disease like HIV/AIDS represents much more than a virus; this epidemic represents the dynamic intersection of microbes moving across time and space, a colonial history of marginalization, structural violence imposed by a global whitefish industry, local political structures of competition and rivalry, and the embodiment of desperate economic decisions. In Ingoldian terms, the ecological and social fields of HIV have been “enfolded” in the bodies of my friends on Mfangano and continue to “unfold”

along the shores of Lake Victoria. A conception of infectious disease in this frame, suggests that the diagnosis and treatment of HIV/AIDS requires much more than tests and medication, it requires an *organic* appreciation of human health. This dissertation is about the Suba people on Mfangano Island who have helped me begin to see it.