4 Historic caravans in Tanzania

Toward reinvigorating multidisciplinary exploration

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Background

Although the ivory trade between East Africa and the world has existed for over two millennia to date (Freeman-Grenville 1962), it expanded considerably across Eastern Africa in the nineteenth century (Alpers 1975, 1992). This expansion featured increasingly large and regular caravans into and from the mainland in search of ivory and other raw materials to feed markets for the industrializing world (Alpers 1975; Beachey 1967). The growth was in response to the increasing demand for ivory-manufactured goods such as hair combs, cutlery, billiard balls, piano and organ keys, and umbrella handles, to mention a few, in Western Europe and North America (Thorbahn 1979). Ivory products were highly desired as expressions of prestige and social status by the growing middle class when the industrial revolution peaked (Flanders 2006). East African ivory is soft – hence ideal for carving – and cheaper than that from elsewhere (Beachey 1967). Thus, throughout the nineteenth century the region became a major source of ivory for the Western world (Sheriff 1987).

Access to ivory and other raw materials in East Africa increased with the consolidation of Omani [the modern Sultanate of Oman] control over the coastal zone in early nineteenth century (Koponen 1988). The Omani court was now based in Zanzibar, which became a commercial intermediary between the African interior and the capitalist industrializing west, meeting demands of the latter for African luxuries and key raw materials, in exchange for Western imported manufactured goods (Sheriff 1987). The now massive trade in elephant ivory evoked Johann Ludwig Krapf's cry (1860:185):

> What horrors and sins would be manifest if ivory, copal, and articles of commerce generally, imported from Africa into Europe, could speak! How many slaves, how many women, how much palm–wine, how many objects for the gratification of lust and vanity, are purchased by

DOI: 10.4324/9781003229810-4

> the Galla, Wanika, Wakamba, and Suahili, with the ivory which they bring to the coast!

Ivory trade was primarily managed by Indian traders who settled in Zanzibar and several Indian Ocean coastal towns such as Tanga, Pangani, Saadani, Bagamoyo, Mbwa Maji, Kilwa Kivinje, and Mikindani (Sheriff 1987). The Indians granted credit to the Arab and Swahili caravan leaders with trade goods, which was repaid at considerable rates of interest in the form of ivory and slaves (Iliffe 1979). In time, large European firms dealing in ivory established permanent offices in Zanzibar. Notable among these were Hansing & Company, Wm. O'swald & Company, Wiseman & Company, and Meyer & Company (Beachey 1967:277). These companies were wholesale importers of goods which they supplied to Indian merchants, and in turn from whom they purchased ivory for the world market (Sheriff 1987).

Ivory and other raw materials were collected from the East African interior by large caravans, each comprised of up to over one thousand individuals (Rockel 2006). The caravans were organized at the coast, and their trips to the interior were led by Arab and Swahili traders, of whom the most infamous in Tanzania was Hamed bin Muhammed el Mujarib, or Tippu Tip, whose creditor in Zanzibar was Taria Topan (Koponen 1988:73). The caravans largely consisted of professional porters (*wapagazi*) hired from the coast and the women and children who served as cooks and companions, as well as some slaves captured in the interior to help professional porters to carry ivory to the coast (Beachey 1967). The slaves were sold and made to work on plantations owned by Arab settlers and Swahili elites upon reaching the coast (Glassman 1991).

Routes, trade goods, and porterage

Three clusters of terrestrial caravan routes developed in the region that is currently Tanzania, linking the coast and the hinterland. These were the central, northern – also known as the Pangani corridor – and southern routes (Rockel 2006; Sheriff 1987). The caravans traveled along these routes to exchange imported commodities for ivory, slaves, and other key raw materials.

Historians regard the central route as the main trade route in Tanzania (Sheriff 1987). The route began in the coastal towns of Bagamoyo, Saadani and Mbwamaji, and proceeded into the interior through the mountain chains of Nguu and Uluguru to Ukaguru of the present-day Morogoro region. The route then passed through Mamboya and Mpwapwa to Ugogoland in central Tanzania, continuing on through to Unyamwezi and to Ujiji in northwestern Tanzania (Sheriff 1987:191). The Nyamwezi porters from north-central Tanzania, and the coastal Arab and Swahili traders, were the main operators of this route (Rockel 2006). The English explorer Henry Morgan Stanley (1872) estimated that by the 1890s, about 80,000

to 100,000 people traveled annually in caravans along this route. Another explorer, Richard Francis Burton (1859), reported that the caravans took four to six months to complete their journey from the coast to Ujiji and back. Burton added that most caravans were already at the coast during the dry season in June or July, after trading in the hinterland.

The northern route had two termini – Tanga and Pangani (Sheriff 1987). The route ran along River Pangani, also called Ruvu, past Mount Kilimanjaro through Chaggaland and the Maasai Steppe up to Lake Victoria. The route had branches going farther north to Taita Taveta, crossing the current Kenya-Tanzania border, and to Lake Baringo. The Zigua from northeastern Tanzania and Kamba from current southeastern Kenya were key traders who supplied ivory and slaves at the coast in return for imported goods (Kimambo 1996). Based on the volume of ivory transported through this route in the 1880s, Håkansson et al. (2008) estimate that about 10,000 people traversed the route annually. Explorers Richard F. Burton and John H. Speke (1858:199, 203) observed traders from Tanga visiting the Maasailand twice a year during their short stay in Tanga: May and June, and October and November, after the great and little rainy seasons, respectively. The caravans reached the Maasailand after about twenty days and would return to the coast after two to six months.

The southern route is reported to have been in use well before the nineteenth century (Sheriff 1987). It was already frequented in the seventeenth century to transport slaves from the hinterland to the coast in southern Tanzania. Slaves were, by then, shipped to the Mascarene Islands east of Madagascar to labour in Dutch and French sugar plantations (Alpers 1970). During the nineteenth century, the route terminated at Kilwa, Lindi, and Mikindani in the coast (Koponen 1988). It passed from these terminals through Umatumbi, Uyao, and Ungindo to the eastern shore of Lake Nyasa. The route branched from the lake zone deeper into the interior to Kazembe and Katanga, Lake Mweru, and Bangweulu where sufficient ivory and slaves were obtained. The key players in this route were the Yao, Makua, and Ngindo from the hinterland, and Arab and Swahili traders from the coast (Beachey 1967).

The caravans required various imported commodities from the west that were offloaded in Zanzibar and distributed in the aforementioned termini (Sheriff 1987). The commodities included cotton cloth, glass beads, brass and copper wire, muskets, and gunpowder (Prestholdt 2004, 2008). As Pallaver (2009) notes, these goods were used by the caravans to procure food, ivory and slaves along the routes in the interior. During their short visit to Usambara in the 1850s, Burton and Speke noted that the abovementioned items were considered mediums of exchange: "Money is not current at Usambara. The small change is beads, the higher specie American domestics" (Burton and Speke 1858:215).

Beidelman (1982:608) indicates that some of the imported items were used to pay for porterage and tributes, or for bribery (*hongo*) to local chiefs

along the routes. He argues that this was necessary for the caravans in attracting local cooperation for access to water, food, suitable campsites, and intelligence on the routes, or for recruitment of extra labour.

Cloth was a highly valued commodity as a medium for acquisition of the hinterland natural resources (Pallaver 2009). Until the 1860s, the most requested cloth in the interior was a kind of unbleached cotton produced in Salem, Massachusetts in the United States (Beachey 1967:273). It was then known as *merikani*, literally "American". The second was indigo-dyed cotton from India called *kaniki*, which was cheaper than *merikani* (Sissons 1984). Light grey shirting from England, known locally as *satini*, entered the East African market after the 1860s (Prestholdt 2004). Twenty years later *satini* was the prevailing fashion along the caravan routes partly because it was cheaper than *merikani* and *kaniki*, and its lower quality facilitated competitive pricing (Prestholdt 2004:773). American-made textiles dominated the East African market until the US Civil War (1861–1865) when cotton supplies to Salem were cut off (Sheriff 1987). Consequently, Bombay-made Indian clothing replaced the American-made clothing from the 1860s (Pallaver 2009:21; Prestholdt 2004:773). Historical records show that the popular unit of measurement of cloth in East Africa was a piece called "*shukkah*", which was always four cubits in length, despite variable length and breadth (Beachey 1967). Beachey notes that the cubit was supposedly a standard measurement, which measured from the elbow to the tip of the outstretched fingers of a male adult (Beachey 1967:273).

Glass beads were the second most sought items in the interior after the clothing (Figure 4.1a; Pallver 2009). Coastal traders bought them from Indian traders in Zanzibar where they were imported "yearly by the ton" (Burton 1859:454). Beads were also used as mediums of exchange, just as clothes were. The most common glass beads were known as *samsam* (in Arabic) or *samesame* (in Kiswahili) made of red, coral, and white beads popularly known as *merikani* (named after the unbleached white American cotton cloth), *gulabi* beads made of pink porcelain, black beads called *bubu*, the *sungomaji* white and blue beads; and a variety called *sofi*, generally Venetian cylindrical beads in different colors (Harding 1962; Karklins 1992; Pallaver 2009).

During his expedition in the 1850s, Burton witnessed *samsam* beads – which he describes as "scarlet enamelled upon a white ground" – being the most requested and expensive variety in the interior. Burton added that this bead type was called *kharaz-kartazi* (paper beads) in Zanzibar because they were imported already strung and packed in paper parcels. He also recorded various popular names for this bead type; for example, in the Unyamwezi region they were known as *kimara-p'hamba* ("food finisher"), *joho* ("scarlet cloth"), and *kifunga-mgi* ("town breakers") – so named because of a widespread desire for them by women (Burton 1859:425). The same bead type was called *chitakaraka* by the Yao, *mangazi* ("blood") by the Nyasa of southwestern Tanzania, and *masokantussi* ("bird's eyes") by the Manyema



Figure 4.1 A sample of cultural materials discussed in the text: (a) a variety of imported glass beads excavated by the author along the nineteenth-century northern and southern Tanzanian caravan routes in 2008 and 2014; (b) a piece of a nineteenth-century European imported pottery bearing manufacturer's mark. Photo: Biginagwa (2020).

of northwest Tanzania (Livingstone 1875). Because of their demand, they were also the most expensive, worth 13–16 Maria Theresa *Thalers* (dollars) (MT$) per frasilah (ca. 16.32 kg) in Zanzibar in the 1850s (Burton 1859:425).

Brass and copper wires were similarly important articles of caravan trade in the hinterland because they were materials for making jewelry. These were imported mainly from North America, and later Britain. Their value was influenced by the width, shape, lengths of coil, packaging, and weight, among other factors. The wires were often imported in pieces of standard sizes. They also came in coils of 9 to 12 inches in diameter, each coil

having ten or twenty rings wrapped in brown paper to prevent oxidization (Prestholdt 2004:765). The value of brass and copper wires were sufficiently great that in interior markets such as in Ujiji, coil bracelets and assorted jewelry were enough to buy slaves and ivory (Pallaver 2009:22).

Firearms and gunpowder were important trade items as well because they commanded a good market in the interior (Burton 1859). According to Burton (1859:380), the preferred firearms were those from Germany, America, and France, and each sold between three and four dollars (equivalent to 6,000 to 10,000 current Tanzanian shillings [€2.15–3.50]). The possession of firearms was pivotal for political strength and stability among local chiefs and other rulers in the interior (Feierman 1974:140–141). With arms, they could access and control trading opportunities brought by the passing caravans, including their ability to ambush villages and capture slaves for sale at the coast (Kimambo 1996:89). Archival sources indicate that gunpowder and flintlock muskets imported in nineteenth-century Tanzania rose dramatically between 1840 and the mid-1860s, from about 2,000 to 26,000 flintlocks, and from 12,000 to 22,650 tonnes of gunpowder (Lamphear 2001). Missionary Johann Ludwig Krapf acknowledged the presence of these imports as widespread. When Krapf visited Chief Kimweri of Usambara in 1852 he found him competing with the neighboring chiefs in buying firearms: by then he had about 400 guns, while one of the Zigua chiefs (not mentioned) already had 600 (Feierman 1974:140–141).

The nineteenth-century travelers' accounts (e.g., Burton 1859; Burton and Speke 1858; Krapf 1860; New 1875) show that the value and demand for imported items changed rapidly due to changing tastes in the interior. As such, coastal traders and manufacturing firms both in North America and Europe had to adapt to the resulting local market dynamics (Prestholdt 2004:761). As Burton (1859:262) noted, "failure to learn quickly as to what was required in the interior could lead to significant losses because unwanted commodities would simply not be purchased". To overcome this situation, the caravan traders had to carry trade goods of various sizes, shapes, and colors reported to be fashionable in the interior. This necessitated the caravan leaders to know the language and fashion exigencies of the people with whom they wanted to trade, as well as those through whose territories they wished to pass (Prestholdt 2004:761).

Another approach to adapt to regularly changing demands was for traders to redesign trade items into desirable forms, styles, and quantities (Prestholdt 2004). This was done at the point of manufacture in East African trade centers or on the caravan trails before the exchange in local markets. For example, before entering Maasailand the Teleki expedition had to rethread beads in lengths of 20 or 21 inches [50.8–53.4 cm], otherwise the beads in another form would not be accepted (Prestholdt 2004:766). A similar case is reported in Unyanyembe, central Tanzania, where once upon a time coastal artisans purchased English broadcloth and tailored it into *kizibao* (short coastal style coat) sought by wealthy men (Prestholdt 2004:45). In

the same area, brass and iron wire were remade before selling them to consumers. Local artisans fashioned imported wire into armlets, leg bracelets, bells, necklace beads, and rings, as well as inlays for gunstocks and knife hilts. The lesson gained here is that some of the imported goods considered finished items at the manufacturers' point were only just partially finished for East African consumers, because they had to be tailored – sometimes radically redesigned – to meet local tastes and market requirements. The implication of this is discussed below.

In terms of porterage, considerable packaging was a necessary requirement for a successful journey and trade. The imports were usually repacked into 60–75 lb [27– 34 kg] packs, which would be carried on heads or shoulders, or in a set of two on a carrying pole (Beidelman 1982: 609). Beidelman hints that goods were wrapped in coconut fiber matting, which was sewn up into balls or bales. He adds that valuables were transported in heavy wooden crates with screw-on lids, and in the rainy season these had to be caulked with tar, while fragile items such as glass were sewn up in corrugated paper. It is reported that only experienced porters were assigned to pack the cargo, and that Muslim prayers and the burning of incense (for belief in safety) commonly preceded this important task. Each porter also had to carry a water bottle, sleeping mat, and cooking utensils, and sometimes his own goods for small-scale bartering en route (Beidelman 1982).

The Nyamwezi from central Tanzania were the most experienced and preferred porters during the nineteenth century (Roberts 1968; Rockel 2000). They had premium knowledge of the trade routes, the expected conditions during travels, collaborated with reliable inhabitants on what and how to trade, and were knowledgeable in securing provisions (Beidelman 1982:611). The Nyamwezi had their own quarters in Zanzibar, Bagamoyo, and other caravan centers, often under their own headmen who served as recruiters (Beidelman 1982). Other noteworthy porters in Tanzania were the Sukuma from northwestern Tanzania, and the Yao, Ngindo, and Makua from southern Tanzania (Rockel 1997).

Porters were paid either for the anticipated journey or by the month (Beidelman 1982). They were usually paid in trade goods, especially in cloth with standard dimensions (*doti*), which they could sell at twice the price in the interior (Beachey 1967). As noted above, cloth was widely accepted as money and had a set value against the MT$ (Beidelman 1982:615). From the 1870s, sometimes part of their wages was muskets, as firearms became increasingly accessible and demanded among the local populace (Beachey 1967); muskets would also be commonly traded for ivory in the interior. Yet, in some routes, porters were paid in cash. Krapf (1860) learned in the 1850s that ivory porters employed by Tanga- and Pangani-based merchants were paid MT$10 for the journey to Maasailand, Nguru, or Chagga.

The caravans traveled to the interior and back to the coast on foot (Koponen 1988). According to Beidelman (1982), the march was led by the chief headman (*kilongozi*) by virtue of his knowledge of the route and

his ability to interact and deal with natives along the route. The headmen usually wore distinctive garb, often red, and an eye-catching cap, for easy identification (Beidelman 1982:618). A man with a drum, a horn, or a gun accompanied him, and could alert the other members of the caravan where needed. The headman had assistants (*nyampara*) who were in charge of smaller groups each with about ten porters in the caravan. There was another headman at the rear of the caravan whose responsibility was to prevent defection and guard against ambush. The nineteenth-century travelers' accounts indicate that a caravan would cover ten to twelve miles a day at about two and a half miles an hour (Pruen 1898). Usually the march began about 4 a.m., followed by a brief rest around 8 a.m., and another by noon when the heat intensified. The caravan halted about 4 p.m., and the remainder of the evening was spent making repairs and discussing the route (Beidelman 1982:619). Customarily, guns were fired upon arrival in villages, and the alerted villagers would bring local products to exchange for items from the coast (Burton and Speke 1858:218; Farler 1882:741).

The decline of caravan trade in Tanzania

The caravan trade declined in the 1890s with the onset of formal German colonial administration in Tanzania. The administration enforced a ban on killing elephants for ivory by introducing game regulations in early 1896, along with the demarcation of game reserves in the colony (Adams 2013; Baldus 2001; Gißibl 2006). Game licenses were made compulsory for elephant hunting. The license prohibited the killing of cow elephants, and possession of all tusks less than 14 lb [6.3 kg] were subject to confiscation (Beachey 1967:285). In 1898, exclusive rights to elephant hunting in Tanzanian German territory were entrusted to hunters who were required to deliver a tusk to the district station for each pair acquired (Baldus 2001). Beachey (1967) argues that privileged hunters were thus induced by their own interest to not report unlawful killing. However, elephant hunting for ivory never stopped completely in Tanzania because the price of ivory in the world market has never dropped enough to deter the trade (Blanc 2007; Coutu 2011). This situation continues to the present.

Revisiting some consequences

There were significant consequences of the caravan trade in what is today Tanzania, and several aspects have received significant scholarly attention by historians (Biginagwa 2012). This section reviews five major consequences: the emergence of well-defined trade routes linking the coast and the interior; the appearance of markets and provisioning centers along the routes; the realignment of human settlements; social and political turmoil; and environmental degradation.

Emergence of well-defined trade routes linking the coast and the interior

The three described main caravan routes connecting the coast and the hinterland in Tanzania were well used during the nineteenth century (Koponen 1988; Rockel 2006; Sheriff 1987). These routes played a major role in exposing the wealth of the country to the capitalist world and in the colonization of the region. The forerunners of colonialism – the explorers, missionaries, and traders – used these established caravan routes to establish their missions in the region (Beidelman 1982). For example, the explorers Burton and Speke reached the interior of East Africa in the 1850s via the central route, discovering and consequently reporting the natural and cultural potentials of the country (Burton and Speke 1858; Burton 1859). These included major water bodies, the diversity of flora and fauna, and various ethnic groups. Similarly, Reverend Farler of the Universities' Mission reported the potentials of the Usambara Mountains, which he labelled as "the Switzerland of Africa", via the northern route (Farler 1879:82). He thus called for a "scientific botanist to teach how to turn the vegetable wealth [of the Usambara country] to account" (Farler 1879:91). Indeed, the railway system established during colonial rule in many places in what is today Tanzania superseded the pedestrian caravans (Biginagwa 2009:23).

Appearance of markets and provisioning centers along the trade routes

Markets and provisioning centers along the caravan routes emerged (Sheriff 1987), for example at Mamboya (in Ukaguru), Mpwapwa (in Ugogo), Kwihara (in Unyamwezi), and Kasimbu (near Ujiji) along the central caravan route (Beidelman 1982; Rockel 2006; Wynne-Jones 2010). Along the northern route these centers emerged at Kwa Fungo (in Muheza), Manundu, Kwa Seungo, and Mazindi (both in Korogwe), and Hedaru and Makanya in Same (Sheriff 1987). On the southern route these included Mtumbei Kitambi (in Kilwa), Kikole and Mang'ua (in Songea), and Ruanda and Ndongosi in Mbinga (Biginagwa and Mapunda 2017; Katto 2016; Mapunda 2004). Some of the centers, such as Mtumbei Kitambi, Kikole, Mang'ua, Mamboya, and Kasimbu, were established by coastal Arab traders as outposts to facilitate ivory trade (Biginagwa and Mapunda 2017). Markets and provisioning centers were points for interaction and exchange between traders, farmers, pastoralists, and artisans (Håkansson 2004:560; Kimambo 1996:91; Kjekshus 1996:115; Koponen 1988:117; Sheriff 1987:172). Local products such as ivory and foodstuff were exchanged with imported goods from the coast.

Realignment of human settlement

Some settlements were repositioned to take advantage of the opportunities brought by the caravan trade. For example, the Wapare of northeastern

Tanzania used to reside on the Pare Hills, but some migrated to the southern foothills, settled, and grew maize specifically to sell to the passing caravans (Kimambo 1996:80). Conte discusses how the caravan trade altered the settlement pattern of the Wambungu pastoralists who inhabited the Western Usambara Mountains prior to the nineteenth century. They had good trade relations with the neighboring Wasambaa agriculturalists, from whom they acquired foodstuffs through exchange with their cattle and other cattle products (Conte 1996:103). The expansion of the caravan trade in the nineteenth century created several markets in the lowland areas such as Mazindi and at coastal towns such as Tanga and Pangani, all of which extended trading opportunities. The agriculturalists then sold their produce in these emerging markets and left the Wambugu pastoralists starved of the much-needed produce. The Wambungu had to migrate and occupy lowland areas and undertake cultivation to sustain themselves.

Some local chiefs also relocated their settlements to take advantage of trading opportunities brought by the caravan trade. Semboja, the son of the deceased Shambaa King, Kimweri ye Nyumbai, relocated his capital from Vuga to Mazindi, established his commercial center and controlled caravan trade (Feierman 1974:144). There he "appeared cloaked in the clothes of a coastal resident and lived in a rectangular (Swahili/coastal) house" (New 1875:319) – signifying how the "seeds of cosmopolitanism" had certainly been sown in the interior (Walz 2010:51).

Socio-political turmoil

Increased access to firearms and gunpowder fuelled social unrest, especially in the interior where villages were raided for slaves (Feierman 1974; Kimambo 1996). Arab and Swahili traders from the coast supplied firearms and gunpowder to the local chiefs in the interior to facilitate social unrest through frequent attacks and subsequent capture of slaves. Violence and destruction were common, as reported by Burton and Speke, who saw, in February 1857, burned and abandoned villages along the banks of the Lower Pangani. The two explorers witnessed the Zigua "burning and murdering, kidnapping and selling in all directions" (Burton and Speke 1858:204). This triggered the fortification of settlements with wooden stockades and/or hiding in dense bush, as was the case at Ng'ambo village in the Lower Pangani (Johnston 1879:550). In the Pare Mountains and slopes of Mount Kilimanjaro, construction and use of underground bolt-holes was one response to the violence (Fosbrooke and Sassoon 1965; Kimambo 1996).

Environmental degradation

Recently scholars have argued that the intensification of the ivory trade had profound direct and indirect impacts on the environment (Håkansson 2004). Direct impacts include change to ecosystems caused by the removal

of large numbers of elephants, which were key species (Håkansson 2004). Intensive elephant hunting in the mid-nineteenth century transformed the environment around Unyamwezi in north-central Tanzania to "rolling parkland" in the 1880s, while in 1860 it was overgrown with scrub and Miombo woodland (Burton 1860:3). Indirectly, the caravans led to agricultural intensification for provisioning them, which led to the massive construction of irrigation systems in the Pare Hills, Usambara Mountains, and Engaruka (Håkansson 2003, 2004).

Whether or not the environmental impact of elephant hunting was sufficient to move the tsetse belt and discourage pastoralism remains a moot point (see Håkansson 2004). There is, however, historical evidence to suggest that some pastoral communities in East Africa, such as the Maasai, Samburu, Dorobo, ll-Chamus, Oroma, and Kitui Kamba, used ivory as a cache of wealth to obtain cattle and cloth (Håkansson 2004:583). It is possible that this led to the culture of accumulating large herds that contributed to continued and current erosional degradation in some locations (Håkansson 2004). Similarly, while it may be true that provisioning the caravans through a combination of cattle-keeping with sedentary agriculture led to environmental degradation in Ugogo in central Tanzania, as argued by Håkansson et al. (2008), such an hypothesis needs to be tested. For North Pare, however, a recently completed geoarchaeological study (Heckmann 2011) has revealed that the onset of accelerated soil erosion predates the intensification of the ivory trade by several centuries, contrary to argument posed by Håkansson (1995, 2004).

The archaeology of the caravan trade: filling some knowledge gaps

In the last two centuries archaeologists developed research interest in the caravan trade (e.g., Biginagwa 2012; Katto 2016; Kusimba 2004; Walz 2010; Wynne-Jones 2016). Among other things, these studies are attempting to disentangle the social, material, economic, and environmental impacts of the nineteenth-century caravan among the local populace in Tanzania. The following section demonstrates how archaeology has begun to fill some knowledge gaps in existing documentary records and oral histories, and even to question some of the inferences drawn from conventional historical sources.

One study is of a comparative analysis of faunal assemblages from four island settlements on the Lower Pangani River in northern Tanzania (Biginagwa 2012). These are documented as halts along the northern routes from Pangani. One objective of this research was to assess whether expansion of the coastal trade in ivory and slaves from the mid-nineteenth century transformed food production strategies as local inhabitants took advantage of the exchange opportunities offered by passing caravans. Such changes, if they had occurred, may have precipitated other social and economic

transformations at the household, village, and regional levels (also see Håkansson 2004). In turn, an intensification of food production in villages along the caravan routes may have initiated wider ecological changes such as severe soil erosion similar to the case of Kondoa region of north central Tanzania (Håkansson and Widgren 2007). Contrary to most scholarly expectations, this study found no evidence of any major transformation in culling patterns or herd management strategies. Instead, the study revealed considerable continuity between the pre-nineteenth century and later levels before the settlements were abandoned in the early twentieth century (Biginagwa 2012, 2014).

Elsewhere, Wynne-Jones (2010) argues that some archaeologists and historians have overemphasized the "prestige goods model", which theorizes that elite access to foreign trade goods through the nineteenth-century caravan trade dramatically impacted indigenous modes of performing authority (e.g., Kusimba 1999; Walz 2010; Wright 1993). Wynne-Jones reminds us that even when foreign trade goods were consumed by the indigenous elite in the interior, they were appropriated via traditional practices of power display and warns against blind projection of Swahili consumption models to interior contexts (see also Chirikure 2014). Models of Swahili consumption suggest that Swahili elites manipulated access to exotic goods in order to accrue power and prestige and differentiate themselves from non-urban, non-Islamic East Africans (Croucher 2006; Walz 2010).

Overall, Wynne-Jones's major point is that we should not assume that trade goods were highly valued simply because they were imported and that in-depth research is needed to explore the materiality of commodity consumption and indigenous valuation within East African contexts. She cautions that the impact of the nineteenth-century caravan trade may be exaggerated and narratives of transformation are likely to elide the complexity and dynamism of local trade and subsistence practices (Biginagwa and Katto 2020).

Using two case studies – Ujiji, the caravan terminus on Lake Tanganyika and Uvinza, a nearby salt production site – Wynne-Jones (2010) observed a general lack of coastal imported trade goods such as ceramics and glass beads, as well as the ritual significance of the Uvinza salt works to local chiefs, which suggest that the caravan trade did not have a transformative impact on local settlement or practices of authority. That is, chiefly power appears to have been based more in control over salt production and not on access to imported goods. Contrary to historical accounts, Wynne-Jones pushes a narrative of continuity for the area.

In relation to the preceding observation is a suggestion that the increase of movements and interaction of people at the height of the caravan trade led to the adoption and widespread use of coastal cultures among local residents along the caravan routes in the interior (Beidelman 1982; Rockel 1997; Walz 2010). Archaeological studies continue to reveal that this was not necessarily the case, since a majority of local communities chose to retain their own ways of life (Croucher 2006; Lane 2011). These studies have uncovered

contrasting ceramic assemblages between those at sites along the coast and those from caravan halt settlements in the hinterland from the nineteenth-century sites (Biginagwa 2012; Croucher 2006; Lane 2011). Coastal sites such as Mgoli (a slave plantation in Zanzibar) are dominated by carinated bowls and pots – mainly decorated by "arc" motifs, along with quantities of imported ceramics (Croucher 2006; Figure 4.1b). These materials are extremely scarce at inland caravan halt settlements such as Kwa Fungo, Old Korogwe, Ngombezi, Kwa Sigi, and Maurui (Biginagwa 2012; Biginagwa and Ichumbaki 2018; Biginagwa and Katto 2020). Similarly, these findings caution historians that the impact of the nineteenth-century caravan trade should not be exaggerated by narratives of transformation, which elide the complexity and dynamism of local cultural practices.

Archaeology is now contributing to debates concerning the framing of capitalist global relations (Biginagwa 2014; Carroll 1999; Croucher 2011; Henry 1991). Research findings, such as those described here, are helping to assess the place and status of indigenous Africans within nineteenth-century world economic systems. During the nineteenth century, East Africans were fairly selective consumers, and traders often found that preferences for particular bead colors or types changed rapidly from year to year. My research at four caravan halt settlements in the Lower Pangani is among the first to provide archaeological testimony for such changes in stylistic tastes over this time period, from a preference for locally produced bone and shell beads in the eighteenth century – despite availability of glass beads in coeval settlements on the coast – to the increasing desire for imported glass beads from around the middle of the nineteenth century (Biginagwa 2012). This and other studies also underscore the role African consumers played in the globalization of trade systems during the nineteenth century and their contributions to processes of industrialization on the other side of the world (Prestholdt 2004). It also tells local people's voices were being heard within large international trade networks (Prestholdt 2004), and that they were not simply passive receivers of "trinkets" (Biginagwa 2014:2269). Commodities actively desired by East African consumers fitted well into cultural logic (Biginagwa 2014; Chirikure 2014; Croucher 2011), and like any fashionable commodity, were highly subject to shifting fashions and cultural recontextualization (Croucher 2011).

More recently, bioarchaeological techniques have been applied to research on ivory trade in East Africa. One such study is Coutu's (2011) isotopic analysis on ivory artifacts from the museums in the United States (Ivoryton, Deep River, and the Smithsonian Natural History Museums), United Kingdom (Sheffield, big game expedition collections), and various East African contexts, to establish the provenience of nineteenth- and twentieth-century ivory trade and specific areas of elephant hunting. This study provides a concise and comprehensive historical and social context for the nineteenth-century ivory trade while also conducting rigorous isotopic analyses on historic and modern ivory samples (e.g., big game trophies,

industrial samples, modern conservation material) to identify the regions where elephants were killed. The research lends itself to ecological questions of the impact of the ivory trade. It aligns with the hypothesis that the ivory frontier continued to recede to the interior with time (Koponen 1988:55; Sheriff 1987:78). The nineteenth-century ivory samples hailed from the interior (Coutu 2011). As such, this research is also relevant to questions of conservation, historical ecology, and landscape reconstruction (Lane 2010).

Concluding remarks

Although the nineteenth-century caravan trade is extensively documented in both primary and secondary sources, there are still some knowledge gaps to be addressed. In particular, there is a need to generate a clear understanding of prevailing situations prior to the expansion of the pre-1840 caravan trade and to set a reference baseline against which changes can be examined. It is on this basis that archaeological research like those examples presented here needs to be encouraged in order to make important contributions to this topic. Additional long-term empirical information can help to reveal how much the material lives of local populations were actually transformed as a consequence of caravan trade expansion in the region, and how this model can be applied elsewhere. Multidisciplinary research projects designed within the framework of *historical ecology* should therefore be invigorated (Lane 2010).

Acknowledgments

Some materials presented in this chapter emanate from my doctoral research undertaken as part of the project *Historical Ecologies of East African Landscapes* (HEEAL), funded by a European Union Marie Curie Excellence Grant (MEXT–CT–2006–042704). Other materials derive from my post-doctoral project funded by the Volkswagen Foundation (VWF) through the Humanities Funding Initiative, "Knowledge for Tomorrow – Cooperative Research Project in Sub-Saharan Africa" (Ref: 88018). I am thankful to these funding bodies as well as to the respective coordinators, Professor Paul J. Lane (HEEAL Project) and Professor Brigitte Reinwald (VWF–Humanities Program). I am thankful to the Tanzania Antiquities Division of the Ministry of Natural Resources and Tourism for granting research permits through the University of Dar es Salaam Archaeology Practical Training Field Schools in 2008, 2009, and 2013. I am indebted to support provided by Prof. Bertram Mapunda and Dr. Elgidius Ichumbaki during archaeological fieldworks, and to Dr. Harun Makandi who read the draft manuscript.

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