Life and technology in everyday life: reflections on the career of Mzee Stefano, master smelter in Ufipa, Tanzania

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ABSTRACT The life history and career of one master iron smelter, Mzee Stefano Malimbo of Ufipa in southwestern Tanzania, serves as the base for a retrieval of social history in the twentieth century. By paying special attention to the persistence of smelting, signaled by the reconstruction of his furnaces in 1936, this article explores the demand for the distinctive, large Fipa hoe in the light of economic activities at a time which, while still economically depressed in a global sense, was locally buoyant. The resulting perspective on everyday life calls for a fuller consideration of the ethnographic record of smelting as observed in its heyday and in subsequent demonstrations. A critical rereading of the documentation for smelting communities indicates that the prevailing culture and beliefs must be understood in the light of the dynamics of change in the social and economic context, the values of the community supporting smelting, and the ritual and performative aspects of the drama of transforming earth into iron. To restore smelting to everyday life is to accept multiple identities. The ethno-archaeologists spearheaded by Peter Schmidt must consequently be challenged on a number of scores, including their erasure of individuals whom they subsume into categories of craftsmen and ritualists rather than regard as men with choices and activities beyond iron-working. Mzee Stefano belonged to the generation that saw Ufipa become overwhelmingly Catholic. Reaching the peak of his life in the 1930s, he was not only a smelter observing the traditional rituals of smelting, he was also an appointed sub-chief, blacksmith, farmer, and Catholic in good standing. The practice of Alltagsgeschichte must be rigorously critical of evidence and confront theoretical over-determination as need be if it is to reach its ultimate goal of conveying historically informed empathy.

The history of everyday life, or ways of living, will never be captured by a school of thought. It is too amorphous, lending itself readily to localism and subjectivity. Alltagsgeschichte and its synonyms provide labels easily worn by post-modernists, neo-Marxists, and populists. Politically muted, finding compromise rather than confrontation, practitioners relish festivals and popular culture, perceptions of survival, life and death. If domination is at issue it is variously cultural, economic, and political. The dominated conform, non-conform, resist. Domination among the dominated also enters the calculus, prodded on by feminist awareness. Amidst all this licence, however, I choose to identify with Alf Lüdtke, who writes of Alltagsgeschichte (1995: 3) that it must combine rigour, empathy and engagement with received truths. His political target within German historiography was the practice of social history in which aggregates, such as classes,
firms or labour unions, have been worthy of study while the experience of unorganized persons remained insignificant.

The present article too challenges theoretical complacency. It stops short of polemic since, on the whole, the struggle against exclusive attention to the dominant has been part and parcel of the new African historiography since the 1960s (see Feiermann 1995). Rather, it engages with the ethno-archaeologists who in studies of iron-making have tended to be preoccupied with technology in a narrow sense, to exaggerate the factor of ritual, and to over-interpret metaphors of procreation.¹ Not only have they neglected the questions of change that are vital to history and accessible within the twentieth century; they have also participated in the erasure of the identity of individuals, who are subsumed into categories of craftsmen and ritualists rather than men with choices and activities beyond iron-working.

This chapter thus takes advantage of the latitude afforded by contemporary approaches to social history. It revives questions about ethnographic sources and material culture and renders judgments on the state of recent scholarship that retrieves as well as criticizes such sources. The backbone supporting these reflections is a case study from a region of East Central Africa that I call South Rukwa, extending from a heartland in the extreme southwest of Tanzania into adjacent parts of northern Zambia. The questions addressed to ethnography focus upon the collection of information about iron smelting. This information will be woven into a synthesis occasioned by the life history and career of one master smelter, Mzee Stefano Malimbo, and then be redeployed to challenge ethno-archaeological paradigms.²

1. Understanding technology

Peter Schmidt, a leader of the charge against the ‘colonial library’ of misrepresentations of African metallurgy, makes the case for ‘deep time’ most explicitly.³ Schmidt characterizes European perspectives in the following terms:

Europeans found the African technological traditions dissonant with theirs, and wanting. If the scale of production was inferior, so too were seasonal production, labour organization, and the final product. Add exotic ritual to this, and the primitive stereotype was assured. Along with differences in scale and organization, there was a distinct contrast in the form of furnaces, which in many cases departed so severely from the European form as to support the assumption that the African furnaces operated less efficiently with a final product of inferior grade (Schmidt 1997: 5).

Broadly accurate as this characterization may be, it does not take into account the descriptions of the living craft that shared the same space and time with such assumptions. Put succinctly, the anti-European and underdevelopment paradigms are flawed by their lack of attention to persisting activities and their acceptance that colonial ambitions were realized in short order.

A model of Fipa smelting distilled from recent and earlier writings about the area by an advocate of the underdevelopment paradigm or kindred ethno-archaeologists might read as follows.⁴ Iron smelting in the local tradition thrived before colonialism. It was

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¹ Peter Schmidt touches on a number of debates in ‘Cultural representations of African iron production’, the introduction to Schmidt 1996a. Fuller references are supplied below in the concluding section on reading, misreading and exploiting evidence and interpretations based on observed smelting.

² Mzee is a term of respect for an older person.


⁴ This model avoids the extremely deterministic views on underdevelopment evident in Lemelle (1992). Schmidt distances himself from this kind of history (1996a: 17).
systematically discouraged by officials who wanted to release labour for waged employment and to promote the sale of imported iron tools. Missionaries preached against pagan ritual and generally promoted a colonial situation in which cash relations dissolved religio-economic practices. Iron smelters with their rituals and performances were particularly targeted, leaving the more secular blacksmiths to ply their useful trades. African smelting was doomed for a combination of reasons – first the availability of cheap imported wares, secondly the Christianization of society, and lastly, regulations to preserve forest resources against charcoal-burners.

A counter-model compatible with Alltagsgeschichte draws on a more inclusive concept of economic and cultural history. Iron smelting in the Fipa tradition depended on community support and demand for tools. In the later nineteenth century, it flourished especially in areas that were accessible to circuits of exchange, sometimes secluded and dispersed, sometimes concentrated with multiple smelting sites in close proximity. Owing to the more disruptive early colonial conditions in the south, in the northern Zambia of today, smelting died out by the end of World War I, while it continued in Ufipa. The smelters in this district of Tanzania found it possible after World War I to be both Christian and preservers of the rituals of iron-making. Their economic contribution continued to be recognized by district officials, who even in 1948 exempted them from prohibitions on tree-felling because their products, hoes, were essential to food production.

History of everyday life in colonial Africa, the theme of this volume, has come to look more and more like history in non-colonial areas within and beyond the continent. The reasons for the fading image of unbounded colonial authority are manifold. ‘Colonial’ is a label for a period of uneven effects and outside pretensions; where the colonial economy succeeded in extracting labour, the consequences in the source area could be subtle. Such was the colonial situation in southwestern Tanzania, in the Ufipa District, during the time when Stefano Malimbo (born c. 1904) became a master iron-smelter. Malimbo practised a tradition of iron smelting that is now extinct but remained a living craft for him and a shrunken cohort of others until 1956. In that year, arrangements were made with a British tool-maker to manufacture a heavy hoe (ise) to Fipa specifications. A fuller account of the positive reception of the Chillington hoes, known by their crocodile trademark, must await another occasion. In brief, however, the District Commissioner of the time, D.D. Yonge, gave a specimen that became the Chillington pattern to a manufacturer’s representative who toured in a light plane. Yonge had been dismayed at the amount of charcoal used in the smelt and the implications for deforestation, an official obsession of the time. As for the inferior tools available in Indian dukas, he believed they deserved their ill-repute among cultivators. In the 1960s and 1970s, ploughs increasingly replaced large hoes in preparing fields on the Fipa plateau for millet and maize crops. The final collapse of smelting thus came together with reliable imports of hoes modeled on a Fipa specimen, the spread of ploughing which fundamentally changed the seasonal rhythms of agricultural work for men, and many other auguries of cultural and political change.

The old technology, and indeed any technology, is clearly more than a set of mechanisms and techniques, things and processes in themselves. Technological traditions, once they are superseded, tend to be stripped of day-to-day or year-to-year

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5 He was still a lucid conversationalist when Dr. Bertram Mapunda visited his home in 1997. Personal communication, 7 August 2001.
6 See note by D.D.Y[onge], 1 March 1957, Sumbawanga District Book. Tanzania National Archives (TNA) microfilm. I also draw upon personal communication from David Yonge.
adjustments to demand, labour supply, and variation between manager/ritualists. It is therefore vital to seek out new ways of thinking that will avoid reification. A loose but useful definition comes from an historically-minded sociologist of science, John Law, who proposes to see technology ‘as a family of methods for associating and channeling other entities, both human and nonhuman.’ He goes on to say that ‘technology ... is nothing other than a set of channeled forces or associated entities. Thus there is always the danger that the associated entities that constitute a piece of technology will be dissociated in the face of a stronger and hostile system.’ Here technology is seen as a ‘piece’ not in the sense of an instrument directly determining behaviour, but as a relational synthesis, a complex system subject to change, expansion and eclipse. The durability of a cultural/social system in which smelting and forging were key will be explored through the career history of Mzee Stefano. The components of channeled forces most apt to be lost sight of with the demise of the old cultural system of Ufipa are the most subtle, human and forgettable: the participants mustered by the master smelter.

Immediately, it is necessary to violate Law’s call for a synthetic view of technology embraced above, in order to introduce some of the material ingredients and their ramifications, by focusing on the artefacts of the iron-working crafts, first the tools, the end-products, and then the furnaces as types and stages in a production process. It is appropriate to pause first over the end-products of smelting and to recognize that, on the whole, they were what I call staple tools, as opposed to prestige objects. Their end-use was in ordinary agricultural life. The emblematic tool in Ufipa, the large hoe weighing between 3½ and 4 pounds, was used by men to break up the grasslands into sods that were turned inward, forming green manure mounds, intumba. This work usually took place in the later part of the rainy season, in March and early April. The mounds were spread for millet planting in November or early December.

It was the isep hoe that was a key element in bridewealth assortments and in many ways symbolized manhood. When dedicating a furnace, smelters explained that they spread on its floor bark from the trees that would be cleared for agriculture. This treatment ‘made the furnace strong’ and together with a ritual spreading of millet porridge by an ‘innocent’ child helped to assure that the hoes from the furnace conveyed fertility (Wembah-Rashid 1969: 66). The next heaviest tool made by blacksmiths was the axe used in lopping branches or pollarding trees in a forest system of agriculture (citemene or ntenele) that coexisted in more mountainous parts of Ufipa. Less

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7. This model avoids the extremely deterministic views on underdevelopment evident in Lemelle (1992). A good critical review by D. P. Collett (1993) points out that ritual emphasis might vary from one stage of the smelting process to another, depending upon when the product was considered to be truly metal.
8. Law (1987: 233-4). I am grateful to Ruth Rempel for drawing my attention to this article.
9. Kriger (1999). A renewed interest in African material culture has been driven in the late twentieth century by burgeoning private and museum collections and closer attention by anthropologists and art historians to how works were commissioned, created by artists and artisans, installed for ritual or decorative purposes, and ‘performed’, as for example in masquerades in Africa. See Arnoldi et al. (1996: introduction).
10. Although armchair German museum-based ethnography deserves to be criticized, the efforts of a Hermann Baumann ought not to be entirely ignored. For a scalding criticism of efforts to refurbish cultural-historical (Kulturkreis) ethnology, see Beidelman (1986). Baumann’s typologies and inventories can nevertheless lead us to collections that contain examples from a specific context which can be retrieved by local history. See, for example, Baumann (1944). Careful attention to Baumann is also warranted because of the way his work has been used by the development economist Ester Boserup, who drew heavily upon his article on the sexual division of labour (1928) in composing her influential book (1970).
symbolic importance has been reported for axes. A lighter-weight hoe (not more than 1½ pounds), sometimes made to order from new iron, but also possibly reforged from a larger iise, served as the female tool for weeding the millet fields. Spears, knives, arrow-heads and bells rounded out the repertoire of blacksmiths.

Even taking into account the warnings against exaggeration of male tasks in the forest system to the neglect of women’s work in kitchen gardens, it must be accepted that agricultural tasks in grassland and forest modes were quite strictly segregated with the large hoe and axe summing up the male phases of the work (Moore and Vaughan 1994: ch. 3) The imported hoes were round, rather than oblong like those in the indigenous style, and weighed a pound and a half to two pounds. They seem to have been adopted more readily where mound-building yielded to a system of ridges. In Ufipa, it will be recalled, ploughs came late: intumba-building remained the norm until the late 1950s.

2. Mzee Stefano Malimbo: Heritage and career

As is especially necessary in a permissive historiographic environment, it is prudent to begin with the question of the quality and reliability of the testimony that undergirds the analysis. Mzee Stefano Malimbo was a man of considerable local prominence especially after 1930, when he functioned not only as a master smelter, but also as a manenekandawa or appointed district sub-chief of Nkansi, an historic principality that had become part of the colonial Ufipa District of Tanganyika. In 1982 he was in retirement, a tall, well-built man with an air of authority, the father of six surviving children and many grandchildren, mentally acute and deeply interested in the past and the present. We became acquainted through a regional research project (1981-1983) under the umbrella of the Tanzania Ministry of Culture. This project took as its point of departure the large furnace (ilungu), which was found scattered across the plateau and represented a mode of life still within living memory (see Wright 1985). We did not get to Mzee Stefano immediately, but rather as a result of a survey of evidence which turned up a film made in the later 1960s in which he was one of the demonstrators of smelting and forging in the Fipa tradition. Over several years we met with him to discuss various questions that arose in our inquiry. He was a superb witness to the twenty-five years from 1931 to 1956 which are mainly of concern here.

Mzee Stefano contributed to a rich record of iron smelting by twice demonstrating the construction of an ilungu, the large primary smelting furnace, and kitengwe, a small

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11 A beautiful example of the small weeding hoe is displayed in the Ethnographic Museum in Berlin. It was presented by the formidable Queen Mother of Nkansi to Captain Ramsey during his initial contact with the rulers of this principality in 1898. Ramsey deposited it in the museum.

12 For the change in agricultural practice in Mbozi, see Knight 1974.

13 There are slightly varying orthographies. That used by Roy Willis, certainly a reigning authority, reflects the spoken language by doubling the un vowel, hence meiwa, rather than mewa as here. The most recent Tanzanian archaeologist to work in the area, likewise, adds letters to better approximate the sound, producing ilungu singular for large furnace, rather than iluungu, the more common rendering which I retain.


15 The team at various times included diverse Tanzanians and Barbara Bury, then a Ph.D. candidate in Geography, whose dissertation is an outstanding contribution to scholarship on the region (Bury 1983). My partner in interviews with Mzee Stefano was A. Mazombwe of the Rukwa Regional Culture Office, whose dedication and interest far exceeded his official responsibilities.
reducing furnace, in Sumbawanga in 1956 and in Dar es Salaam for the film in 1967. Through several recorded interviews and many informal conversations from 1981 to 1983, Mzee Stefano led me to understand the reasons why smelting remained a living craft in Umpa decades after it had become defunct elsewhere in the wider area of the furnace tradition. In Northern Rhodesia and in the Mbozi District to the east of Umpa it had virtually ceased after World War I. Try as the colonial government of Northern Rhodesia might, it could not revive smelting between 1937 and 1943, when it sought to redress the shortage of tools and achieve import substitution. As will become evident, the technological tradition was only one feature of the history of iron production. The moral economy of collective support for smelting ruptured early in Northern Rhodesia; without it, the craft was uneconomic.

A recurrent theme in studies of craftsmen in Africa is descent and reproduction of skill within families. Mzee Stefano insisted, as did others, that in Umpa the craft was open to all who wanted to enter it and proved themselves. This ideological posture of accessibility knit together the smelters and mere blacksmiths, who far outnumbered them. Yet in reality, skills were often transmitted along family lines. Stefano succeeded his father as a master; his nephew was his recognized successor.

The pattern of furnace construction, charging, and carrying out attendant rituals had been handed down to him from his father, who had it from his grandfather. This paternal line originated in the south, in the Mambwe clan of Sinkambe. Baba Sinkambe, Stefano’s father, had become a smelter while living in the vicinity of Mwazye, probably near the present village of Itakesha, a regional nodal point of smelting. The population of this area included many Mambwe who had been displaced in the 1880s by conflicts in their own lands further south. The Mambwe integrated relatively easily, speaking as they did a dialect very similar to the Lungu and the ‘Sukuma’, those who claimed to be the aboriginal people of Umpa. Baba left Mwazye, according to family tales, due to insecurity in the principality of Lyangalile precipitated by the military activities of a usurping strong-man, Kimalaunga. To this day, Kimalaunga figures as the big bad wolf in children’s stories at Mwazye. But it was also the case that smelters dispersed from Itakesha continuously, taking their skills to new areas of demand. In Baba’s case, he

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16 The former was written up for the *Tanganyika Notes and Records* by Robert Wise, the District Officer (Wise 1958a/b). J.A.R. Wembah-Rashid, who scripted and organized the production of the film, did not conduct fieldwork in Umpa and introduced inappropriate comparisons with other smelting traditions and imputations about the origins of the Fipa as a people (1969: 65). The narration for the film, ‘Iron Making in Umpa’ (1967), is better.

17 This failed effort is recorded in the Northern Rhodesian government files, especially for Chishinga areas. See Zambia National Archives (hereafter: ZNA).

18 For a history that distills received wisdom, see Herbert (1993).

19 A unique census of Mambwe areas is contained in the survey document of the Anglo-German Boundary Commission of 1898. These indicate that iron-smelting villages were twice as populous as others; they had more livestock and relatively abundant food. See Village Lists, Inclosure 8 in No. 1. Nyasa-Tanganyika Boundary Report, 1898. Public Record Office, London, FO 881/7116, p. 11.

20 The iron smelting practised at the Mwayze/Itakesha nodal point before World War I is the best described of any in Umpa, thanks to the ethnographic work of the missionary priest A. Wyckaert, which will be discussed in greater detail below. Agriculture at Itakesha boomed after World War II, and so did smelting. It was also one of the first places to adopt the plough, however, which explains the relative decline of smelting in the early 1950s. See Bury (1983: 286ff.).

21 See Watson (1958). The London Missionary Society (CCWM) Archives at SOAS, London, give a much more immediate sense of the disarray resulting from conflicts among Mambwe royals beginning in the 1880s and continuing through the 1890s.
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reset in Milansi, a precinct within the Fipa principality of Nkansi. The priest-chief of Milansi figured as the descendant of former rulers who had by the eighteenth century been usurped by the founders of the Twachi dynasty, whose branches eventually ruled the rival Nkansi and Lyangalile principalities. The Milansi chief was identified with iron smelting and magic. Stefano’s family lore claims that a magical barrier surrounded Milansi. The guns of aggressors would not fire but rather burst apart owing to the power of Milansi spirits (Stefano interview 29 October 1982). In Milansi a node of smelting activity existed near the present-day village of Mlanda.

In about 1897, Baba struck out on his own, building furnaces in an area today called Makuzani because of the national prison established there by the British. The rich iron-bearing soils later attracted many other smelters who had free access even though, in Mzee Stefano’s proprietary view, they were ‘our ores’ (ibid.). Baba’s importance escalated when he became Mlasi, an appointed chief responsible for the sensitive districts bordering on Lyangalile.

During Mzee Stefano’s own career, he moved furnace sites once, abandoning the place his father had selected at the turn of the century. In his youth at the time of World War I, he was a herd boy, dug ore and assisted in minor ways at the ilungu, kitengwe, and forge. So did his brothers, the oldest of whom was also groomed for a future as an iron-worker, but eventually moved out of Utipa. A major event for the entire family came when his father replaced the old pair of furnaces with new ones only 500 yards distant in Makuzani. At these furnaces, ten or so years later, Stefano took over from his father as the master smelter, having been invested with the ntagala, the secret medicines necessary to the practice and authority of a master. By that time, he had experience as msole, the principal assistant, was married and had at least one child. He and his wife were baptized Christians, but adherence posed no obstacle to his conduct of the traditional rituals of iron smelting, which were not criticized by the village catechists who were responsible for directing the swelling numbers of Christian adherents in the interwar years.

When the time came to rebuild the ilungus, Stefano established them close by his year-round residence at Ikumba instead of at Makuzani, a march of several hours. The skill to direct this construction came from observation and participation, not merely in boyhood when his father had last built, but also by volunteering as an assistant when other masters called for helpers in such projects. The Nkansi principality in the interwar years reflected the homogeneous institutions of indirect rule, with a native authority passing regulations on the recommendation of the District Commissioner. Mwenekandawas, such as Stefano upon his appointment in 1930, served as tax collectors. He also promoted recruitment of migrant labourers for the sisal estates, furthering the side-business of Chief Kapere. More immediately relevant to the present discussion, he

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22 For the most accessible version of this ‘key myth’, see Willis (1981: 27ff).
23 Stefano interview 6 July 1983 at Molo Prison furnace site.
24 Stefano interview 29 October 1982. Wyckaert in 1913-14 had sponsored smelting by Christians who undertook to do without the ‘pagan’ rituals. The Father Superior served effectively as a patron, presiding over a large and prosperous station community. See Wright (1989). Wyckaert’s initiative is discussed further below.
25 This practice was re-enacted when he served as msole supporting Mzee Andrea Monela as the master smelter in 1967. In this case, the roles were dictated by the fact that Andrea had been approached to do the demonstration and he turned to Stefano to join him. The same networks also operated for the less skilled helpers. Joint interviews Mzee Andrea and Stefano, at Pito, 26 October 1982 and in Sumbawanga, 2 November 1982, where they came to a public showing of the 1967 film and were presented as the demonstrators.
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collected from each smelter in his area of jurisdiction the first hoe blade of the season to be forwarded to the chief. In due course, as he admitted, it was usual to secure two hoes, one to be retained by the *mwenekandawa*. No wonder Stefano could recall with some precision that, of the fifteen villages under him, nine had active smelters and almost all had several blacksmiths – he estimated five on average. At the time of the late flush of smelting activity from the mid-1930s to the early 1940s, official and craft interests obviously combined to the great advantage of Stefano Malimbo.

3. Four questions

The discussion pursued here leads us to ask four questions. Why did Mzee Stefano rebuild his furnaces in 1936? The timing seems odd in the light of many accounts that correlate revival of smelting exclusively with the world wars of 1914-18 and 1939-45, when imports were suspended. What motivated a large number of people to join in building furnaces and annually to turn out to produce stockpiles of raw materials for the smelting season? Who joined the smelting team for the four- to five-month dry-season activity? Finally, what does attention to labour mobilization and skills acquisition suggest about the dimensions of daily life in the history and historiography of colonial Africa?

Why Mzee Stefano rebuilt can be answered in part by his own testimony. At the simplest level, it was true that the existing furnaces were nearing the limit of their life span and would need to be replaced. The new site was near his home, resources of ore and wood were available, and it was warmer than on the high exposed plateau of Makuzani. He could attend to his official responsibilities.

To this reasonable explanation we may add that the move probably made for more village participation. Up to one half of the villagers had gone along for at least part of the smelting season, helping with the massing of raw materials and giving domestic support to the smelting team. The male smelting team rarely exceeded ten; the auxiliaries might be twice again the number. There were some women and children, although more women remained behind to deal with the female tasks of harvesting the millet. Women normatively did not in any way participate in the active smelting, and their sexual duties were in abeyance owing to the obligation of the leaders, at least, to remain celibate throughout the season. This discipline continued to be a point of professional dignity for Mzee Stefano. Like other smelters, he would have built a grass enclosure to establish a more secluded work space. There was a sense of encampment even at his new furnaces, within an easy walk of the village. The team donned leather singlets, they sweated and were smelly, they enjoyed their ribald jokes and songs. But women’s work, in brewing millet beer and cooking, cannot be eliminated from the equation of labour considerations, and proximity to home lent flexibility in distributing effort among many tasks.

Smelting continued in 1936 because demand for hoes remained vigorous, and imported tools tended to be scarce or not appropriate to the heavy work of creating *intumba* mounds. For all the official projections that shop sales would make redundant the blacksmiths who forged indigenous iron, the ranks of iron-workers were actually replenished between 1936 and 1943 (Greig 1937: 80). The key to understanding the clamour for tools was the market for labour and produce at the Lupa goldfield, which boomed in the early 1930s in the semi-arid area of Chunya, a hundred miles northeast of the Fipa plateau. The Lupa area had been exploited for gold increasingly in the 1920s. With the revaluation of gold in 1932 a rush occurred, and alluvial diggings proliferated.

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from 1932 to 1937. This relatively nearby magnet made up for the fact that migrant workers had returned home, discharged from the sisal estates, and formal recruiting temporarily ceased. Food surpluses could readily be sold to the Lupa mines. Drought and locust struck in the early 1930s, but with greater consequences in the Rukwa Valley. Following a time-tested pattern, temporary refugees left the valley for the plateau, where they worked for their keep. Their contribution to production probably well exceeded the single load of food they eventually took home. Drawing upon his experience in 1936, a District Officer wrote:

In the past, many males emigrated yearly to Tanga and elsewhere on the coast in search of work on the plantations; the majority of them did not return. It was feared that a serious depopulation might result. Some three years ago, therefore, recruiting of labour, except for a limited yearly number, was forbidden. Consequently the male population is fairly constant. The demand for labour for the Lupa goldfields does not greatly affect the population, as the great majority of those tribesmen who go thither in search of work return to their own homes before the planting season. The demand for foodstuffs to feed the labour on these gold mines has stimulated production in Fipa. [...] The rise of the Lupa goldfields, therefore, has resulted in an increased circulation of money in Fipa, which, in turn is reflected in a higher standard of living, typified by a great demand for cloth, imported hoes, shirts, knives, lamps and kerosene (Popplewell 1937: 105).

Given that men were to some extent bottled up in Ufipa and available to make more intumba mounds for greater production of food, the work of women in their gendered tasks of weeding, harvesting, and winnowing increased commensurately. Altogether, establishing furnaces nearer the village at this time made consummate good sense.

What motivated people to join in building furnaces and turning out to produce the stockpiles of raw materials also has an initial answer that seems straightforward. A cow was slaughtered when a new furnace was to be built, and beer and food were supplied while the clay from anthills was brought and kneaded and the construction progressed. But it must also be appreciated that furnace-building was a spectacle and a festival – diversion, in short. The master smelter and his principal assistants made a great performance of the entire event, including the measuring out of the base perimeter, the sacrificing of a chicken and sprinkling of its blood by a pre-adolescent girl, and the burying of protective medicines (ifingila). The final touches, just short of completion, entailed decorating the furnace as if it were a bride, and singing special (often bawdy) songs.  

The call for helpers to prepare materials for a season at established furnaces also brought a community response. The reward was beer, food and the meat of a slaughtered goat. The moment fitted the seasonality of life ideally; for the call came in May, the month when millet was left on its own to ripen, competing activities were minimal, and the earth was still moist, making it easier to dig the iron-bearing soils. Although everyone

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27 Documents of the time record the ‘streams’ of men moving toward the Lupa gold fields. Joseph E. Mullen draws on them and illuminates the situation in his thesis (1978). See also SEC 2/303 Abercorn [Mbala] District Reports and SEC 2/819 District Tour Reports, Abercorn, 1932-33. ZNA.

28 One song written down and not translated from CiFipa by Father Robert was too obscene for the Tanzanian priest whom I asked to give a literal translation. He politely refused. The song was not published in Robert’s book, but is found in a draft ‘Pratiques des Fondeurs–Forgerons WaFipa’, probably written about 1930. Rome, Archives of the Missionaries of Africa (hereafter: APB).
helped with this phase, it was exclusively men and usually junior men who moulded and cut the clay for the tuyères, the vents placed in the openings at the base of the furnace.  

Those who joined the smelting team for the four- to five-month dry season were often either persons dependent upon the master and his chief lieutenant or temporarily attached men, willing to work and enjoy the food and other domestic support provided by the women and girls from the smelter’s village community. Blacksmiths seeking newly smelted iron expected to go away with balls weighing four to five pounds that were ladled out of the kitengwe. A few may have aspired to become smelters, but probably most were after iron. Stefano stated that he could get a yield of at least six hoes from one smelt. He gave the example that if he smelted nine times with six helpers, each received the product of one smelt; he kept the product of three (Stefano interview 28 June 1983). To render this compensation as a wage would be to disregard the very important factors of camaraderie, the village status of blacksmiths, and commitment to the reproduction of a self-sustaining material culture.

Several implications arise from this evocation of daily life at the particular juncture, c. 1936. One line extends in the direction of continuity. The ilungu iron-smelting tradition, within which there was a modest display of variation in small details of construction and charging, proved to be generally standardized. It has been suggested that this replication came about because of a strong tendency for mastery to descend through families, amidst an ideology of open access to knowledge and eventual master status. When challenged with this paradox, Stefano said smilingly, ‘Sons can be commanded,’ (ibid.) perhaps reflecting his own experience as a younger son who came of age in a time of his father’s notability in several spheres of local life.

On the other hand, the vitality of the craft in the interwar years owed much to the particular historical circumstances of Uípá, to the way in which culture responded to the local colonial situation. Notwithstanding major contributions to the migrant labour force on the sisal estates, numbers of the male population remained regionally committed, defining their lives as artisans servicing a complex grassland agricultural system through the production of tools. The division of the year into two seasons, dry (seven months) and rainy (five months), conveniently set off the two major occupations of men. Mzee Stefano himself built as many as 120 intumba mounds: ‘With one’s [own] hands it is not possible to cultivate much. 120 matuta [intumba] is a lot’ (ibid.). Another surge in male labour in the grassland system came in November and December, when mounds were spread for the planting of millet. Effort in both mound-building and smelting could be intensified or diminished annually.

Blacksmiths worked more on demand, firing up the forges in their villages throughout the year whenever orders for new hoes or repairs warranted it. Blacksmiths could work up the lumps of iron as they came from the kitengwe, and these could be stored and circulate as such; or they might reforge hoes brought by a client, for a fee of one chicken or the equivalent, or draw on their own reserve of metal. A hoe sold for three five-gallon tins of millet. Even though cash increasingly permeated the circuits of exchange in Uípá, the presentation of use values continued to be anticipated on all sides. Bridewealth payments reflected the same norms up to 1948, at least. Mzee Stefano’s own bridewealth

\[26\] May remains the month of least work in agriculture and other village tasks on the Fipa plateau, according to an ILO study conducted by Ed Frank.

\[30\] It must be acknowledged that this command over sons was hardly perfect. Stefano’s eldest brother escaped by leaving the district. Of his own four sons, none of them took up the occupation of blacksmith, although those at home could certainly be called upon to assist in minor ways.
in about 1924 represented a quite ordinary assortment: two hoes, 25 arrowheads, and five goats (Stefano interview 29 October 1982).

Perhaps the best words to summarize the economy of Mzee Stefano’s world are constancy and versatility. His life is not one of an ordinary man. Both his father and he combined public office and smelting. Were he less astute in political and social relations, the delicate balance between acting as a functionary and as a smelter depending on the voluntary adherence of the community and other iron-workers could not have been preserved. So it was that individual, personal qualities assured that Stefano remained in 1956 one of the last active smelters and was in 1967 a widely recognized authority, well chosen to co-star in the filmed record.

4. Archaeology, ethnography, technology and history

The career of Mzee Stefano as presented above must unsettle those who think they know about the area and iron technologies. This section devotes itself to addressing and overcoming the gap between social history with all its complications and abstract models of the past framed only by artifacts, symbolism and conjecture.

The craft survived and died for economic reasons. Supply and demand, costs and command of labour, and skill expressing itself in relative productivity, all tend to be forgotten by those conducting ‘emergency’ research hoping to re-enact smelting before the last knowledgeable men expire. Randi Barndon drew on her M.A. work for the University of Bergen, Norway, in describing such ‘emergency’ research conducted in 1990 and 1991 ‘to establish a meaningful context for Fipa iron smelting within a cultural framework’, which she combined with observation of new furnaces built by aged experts and endeavours to reuse a furnace that had been abandoned for at least forty years. In a section headed ‘socially created space and technological style’, she provides a diagram for Fipa smelting work-space, which she claims was highly orthodox in its replication, ‘arranged according to cosmological principles’ and showing ‘great continuity over the last century’ (Barndon 1996: 70).

Findings about symbolism, ritual and cosmology, metallurgy and technology stemming from recent investigations can and must be subjected to evaluation, and there is no better way of demonstrating the possibilities than by a reassessment of five standard published authorities – three missionary-ethnographers, Adolphe Lechaptois, Albert Wyckaert and J. M. Robert, and two administrator-observers, R.C.H. Greig and Robert Wise. Where possible, archival sources will figure as means to expose more fully the observers’ assumptions, strengths, and limitations and the ways in which published accounts have been misread by late twentieth-century Africanists.

Father Wyckaert arrived in the Tanganyika Vicariat in 1906, just as the apostolic vicar, Bishop Lechaptois, was fully engaged in gathering the materials for an ethnographic study. Aux Rives du Tanganika, published in 1913, has been used as a source on iron smelting. Although he does not refer to specific sites, Lechaptois would have known Mambwe smelters well from his own days as a young missionary stationed in their country. From the turn of the century, itinerating the Fipa plateau and drawing upon the observations of his newly established parish centres of Mwazye (Lyangalile) from 1904 and Kate (Nkansi) from 1906, he could accumulate a good sense of the distribution and importance of the craft. He devoted fifteen pages to the various stages, from primary smelting at the tall furnace to forging various tools. The work, extending over 250 pages, was hardly preoccupied with any particular economic or ritual activity. It was essentially a benign intelligence document, eager to celebrate the political system of the Fipa principalities, whose dynasty was on the threshold of conversion to Catholicism.
When he meditated upon the unscientific attitude of the ironworkers, who conformed unreflectively to longstanding practices and, when questioned, asserted that the magical elements secured success, Lechaptiós speculated that smelters were a residue from a once more advanced civilization. At the same time as conceding that certain young men already preferred porterage or other wage labour to the hard and unprofitable work in iron smelting, he also reported that where the people could compare indigenous and imported iron, they preferred the indigenous. Bearing in mind that Lechaptiós provided a comprehensive survey of political institutions, livelihoods, life cycle events and religious beliefs within his diocese, a proper reading of the Lechaptiós work must take into account the way in which he was projecting a renewal of culture under Christian influence. To pluck a few passages from the whole work without assessing a missionary leader and enterprise that looked to take over rather than transform the culture, leads to continuous misreading.

Wyckaert made the most important contribution to our knowledge of iron smelting and associated crafts. He took every opportunity to follow in Lechaptiós’s ethnographic footsteps. He had found an ideal setting for studies of iron smelting in the parish of Mwazye, where he became a missionary priest in 1909 and Father Superior in 1910. In his article ‘Christian Smiths and Pagan Smiths’, published in 1914, Wyckaert gives a lively account of how master smelters rallied and disciplined the community that turned out to assist at the beginning of the smelting season. The miámi, or master smelter, emerges as a rival priest and moralist. It became Wyckaert’s project to promote smelting by Christian masters who pledged to do without the traditional rituals and medicines. In 1918, Christian villagers departed with the first Christian master to accept the terms, Lui Chawalanga. When the attentive missionaries visited the smelting site to help figure out why several charges failed to produce reducible iron, they dismissed suspicion that failure was caused by the witchcraft of rivals, blessed the furnace, and pointed out certain technical reasons for the failures.

Wyckaert left Mwazye in 1920, never to return. He took with him to Europe notes, scale drawings and specimens registered in a remarkable inventory of the material culture of Mwazye parish. The first item listed was the ise, followed by the mukoło, weeding hoe. Columns to the right of these names indicate the general prevalence in ethnic and/or territorial terms and the specific place of observation. Finally, considerable space is reserved for notes on methods of use. The inventory covers metal tools of smithy and the crops under cultivation. It details the furnace types, the proportions and range of their dimensions, and purposes. He illustrates two very different ways of charging the ilunga, giving the indigenous name of each method. What surprises the researcher generalizing from later descriptions is that Wyckaert identifies and names a third furnace known as kandíli, used if the reducing kitengwe has not completed the job to the standard required for forging. This smallest blast furnace had only one opening for the bellows rather than three in his kitengwe. The last important fact recorded here is that it was only

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31 Kjekshus did read Lechaptiós’s original book and made his points about underdevelopment by referring to selected passages (Kjekshus 1977: 89). Killick (1990: ch. 5) queries Kjekshus’ use of Lechaptiós, wondering whether there is enough evidence of pre-colonial conditions to confirm such conclusions.

32 Wyckaert assumed responsibility for preparing the second, expanded edition of Aux Rives du Tanganika, published in 1932, which still carried the name of Lechaptiós (d. 1917) as author.

33 Mwazye station diary, entries for 30 September and 2, 10, 12 October 1918. APB.

the ilungu that was always at a distance, ‘in the forest’. The kitengwe and kandili could be closer by (ibid.: 9).

After 1920 J. M. Robert emerged as the leading missionary ethnographer among the White Fathers in the Tanganyika Diocese. He prepared drafts of various sections of his future book mainly for the guidance of missionaries in Ufipa, but he also sent them to Wyckaert for consideration in the revision of Lechaptois’s ethnographic work. Rapid popularization of Christianity and a melding with indigenous values provided the context for Robert’s work. In describing minutely all the pagan beliefs and acts of worship, he hoped to equip the missionaries to better understand their superficially Christian followers. The stage of missionary engagement is recognizable from many parallels; the initial tolerance and chiefly patronage on the part of missionaries had yielded to a more settled authority and demands upon the faithful to be more thoroughly Christian. The gap between the missionaries and the people widened in the early 1920s, when stringent economic measures cut back on payment for services like porterage, which now was expected to be given free as a form of contribution to the church. But the church at the popular level became more internalized in local life, especially through its sacramental, life-cycle rituals. The missionaries could smile on harvest festivals that mixed traditional and Christian features. Catechists continually negotiated between strong cultural imperatives, such as widow inheritance, and the influx of the young preparing for confirmation whom, without overt parental opposition, they instructed that monogamy alone was Christian. Most marriages in Ufipa were and continue to be monogamous. Until the church became popularly based, parents had usually committed their very young sons and daughters to eventual marriage partners.

Missionaries were given a comprehensive and wonderfully illustrated overview of the ‘pagan’ world of the Fipa by Father Robert. His book contains a fund of information with many revealing details, but his purpose was not to concede that Christianity and paganism were blending. While the ethnography was historically contingent and is revealing when so regarded, it conveyed impressions of timeless paganism. The smelter-blacksmiths known to Robert were still (as for Wyckaert) ritual authorities with community command, competitive as priests with the Catholic missionaries. The ntangala, the magical assortment applied to assure success, by Robert’s rendering very nearly assumes the character of the host in the Catholic Mass as the master smelter intones:

Come, venerable ntangala, and you ancestors who dwell in my hut [sequestered place for storing], and you spirits of the bush and all you master smelter-blacksmiths who inhabit the village of the dead, guide me so that I obtain much iron (Robert 1949: 271).

A close reading of Robert’s description of the taboos around smelting reveals that they had everything to do with avoidance of adultery. They prescribed celibacy from the time that charcoal began to be burned. Yet it is also take as a given that women resided in the smelters’ seasonal camp even if they did not figure at the actual work-site. In the draft version of the section on rituals of smelting, where he gives the not-to-be translated lewd song celebrating the furnace, Robert indicates in French the verses sung by the male

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35 Drafts are to be found in the White Fathers’ archives. They vary a little from the text to which Bishop Birraux gave his blessing in 1933. Mimeographed versions circulated among missionaries for some fifteen years prior to the formal publication (Robert 1949: 5).

36 A woman of some fifty-five years of age, ‘Angelica’, stated that she assisted her father in the actual smelting as an unmarried but post-adolescent girl because other labour was unavailable. One task she would never have done was to shape clay for tuyères and cut them to size, which only young men could do.
chorus and those sung by the female chorus, presumably at the commissioning or recommissioning of an ility. Robert gave no hint that the smelters, their assistants, and their family/village supporters could be in their own estimation Catholics and at the same time ritualists and participants in a pre-Christian tradition of smelting. When asked whether Christians held back from joining the smelters, Mzee Stefano said that when everyone was invited and some decided to accept, it was not on the basis of faith or conscience (Stefano interview 29 October 1982).

The two administrators who observed smelting were R.C.H. Greig in 1937 and Robert Wise in 1956. Greig’s article is overshadowed by a sense that smelting was in its last days, with by his estimate only 20 active smelters remaining in the Ufipa District (Greig 1937: 80). He empathized with the smelters’ seeming loss of status, but would have found it difficult to imagine that circumstances might still bring about an increase in furnaces and production and lead to the acquisition of ‘traditional’ skills by a new generation.

The young master whom Greig observed as the owner of the furnace under construction was a Christian, who seems to have made asides to the District Commissioner to the effect that the ritual performance was not necessary to the metallurgical process. It was the elder smelters serving as principal councillors, wasole, who guarded it as essential (Greig 1937: 78). There may well have been a generational effect, whereby the younger were less pious with regard to the ritual than they became as elders. Yet personal temperament also figured in smelters’ practice. The example of Mzee Andrea Monela is apt here. Andrea as a young smelter, a member of the Nyika minority in Ufipa, and a Christian was attracted to the Pito Mission when it began to be constructed in 1939. At Pito, drawing mainly on the assistance of other Nyika settlers, he established furnaces where he smelted from 1939 to 1949. He also became headman (under Mzee Stefano as meneikandawa). Mzee Andrea, who played the master smelter in the 1967 film, was deeply imbued with the mystique of smelting and forging, as well as a very discerning judge of the quality of the products of the processes. He had married well, became quite a wealthy peasant, and remained a stalwart layman in the Catholic church.

When Robert Wise commissioned the demonstration in the District Commissioner’s front garden, the setting was largely artificial. It was not necessarily the case that by taking away the spongy product of the ility Mzee Stefano was yielding to jealous colleagues who did not wish secrets to be revealed. This secrecy is elusive. Power lay in the mbilo and mungala, and ifingila, yet the whole succession of published sources gave lists of the ingredients. A case can be made for deception in this instance. It was not unusual to take the primary product to a place closer to home for reduction, and that is what happened, although Wise does not disclose it in his articles on the demonstration (Wise 1958a: 106). We will never know whether the forged hoes were from the mungala product of the newly built furnace. By dividing the articles between the physical steps and the rituals, he contributed to the detachment of smelting from its place in daily life. In doing so, he drew upon Father Robert’s recently published work (Wise 1958b: 232). Those acquainted with Stefano Malimbo through reading this chapter will find it alarming, even taking into account the official mind, that Wise makes him into a generic master smelter, unnamed and stripped of any other identity.

The ‘colonial library’ thus cannot be condemned out of hand. Rather, it needs to be read carefully to discern the diminishing quality of observation and comprehension of the local economic and social history. Of course, as seen in Mzee Stefano’s career history, 1956 was at the terminus of iron smelting as a living craft. But it certainly would not have survived so long without the coexistence of Christian and non-Christian beliefs.

5. Conclusions

Mzee Stefano seriously conducted the rituals of smelting; he believed that his ntangala were empowering and certified his master status. But he was also a manager of labour, a public office-holder, a Catholic. The discussion of his career has allowed us to trace a history bridging two photographic records, one of a smelting community in full swing before World War I near Mwazye and the other epitomized by the derelict iliwagwi, with perhaps an African assistant standing dutifully as an indicator of scale. It has been reported that some old furnaces have in recent years been made into fertility shrines on the assumption that the medicines buried beneath them are everlastingly powerful. The quest for a stable symbolic system replicated in the layout of a smelting site, for example, must be qualified by full appreciation of the practical world of Mzee Stefano and his colleagues. Contrary to the assumption that smelting occurred at one iliwagwi, Stefano always worked a pair of furnaces, as had his father. True, in both of his recorded demonstrations, only one furnace was commissioned. Demonstration and tradition were not the same. Tradition, in the sense of the everyday activity and attendant orthodoxy, was not on display in the demonstrations. Confronted with the reported practice of certain smelting families who in the early 1950s had used three furnaces concurrently, he was indignant, looked down reproachfully, and said: ‘Never three, always two’ (interview 28 June 1983). These ‘always’ statements are part of the wonderful and problematic evidence provided by oral testimonies, especially those of experts.

When Peter Schmidt asserts that ‘African iron smelting provides a powerful intersection of material and ideational worlds’ (1997: 231), he is only correct if both material and ideational worlds are understood to be subject to change and manipulation. Until there is a careful historical study of the decline and abandonment of iron smelting and the marginalization of blacksmithing the work of retrieving the associated technology and culture will be incomplete and misleading. It may well be that a demonstration of iron smelting, detached from the living craft integrated into a viable economy, is not a demonstration of technology, only of some ritual and some processes that can be analysed ‘scientifically’ by metallurgists. These do not add up to a technology if by that we mean the channelling of power, physical labour, other energy sources, and spiritual forces.

To further the study of everyday life in a time when indigenously smelted and forged tools yielded to imports is one line of inquiry that may shed new light. The Lake Victoria Basin might be ideal for one such case study. Take the situation of the Luo described by Margaret Jean Hay (1996: 248). These cultivators by their own account used wooden digging tools in the late nineteenth century and swiftly took to the imported ‘German’ hoes when they became available about 1908. The Luo on the eastern side of Lake

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Victoria were experiencing the distributional effects of the steamer services associated with the railway from Mombasa that reached Kisumu in 1901. The accelerating commercial relations also affected the Haya on the southwestern side of the lake, gravely undermining the ancient smelting so celebrated by Peter Schmidt.

Intermediate between the Luo and the Haya are the Barongo, members of an occupational identity group of iron workers which thrived in the nineteenth century south of Lake Victoria and persisted to the early 1950s. Schmidt conducted research in the area for several years beginning in 1979 with elderly men who had not smelted for over a quarter century. The demonstration was minutely recorded. The resourcefulness with which the experts modified unsuccessful steps was celebrated as *bricolage*, a discovery that ‘taboos have been abandoned to facilitate increased production’. Finally, ‘it is essential to come to more informed understandings of variation and why it appears as such a dynamic part of the productive cycle’ (Schmidt 1996b: 122). These concessions underscore the need for attention to the economic and social factors shaping everyday life in the 1930s. The Barongo were more specialized than the Fipa as iron-workers, and the gold-mines in their area also became more dominated, as early as the German period before World War I, by settled, highly capitalized operations rather than dispersed, alluvial workings (see Kaigejage 1983). The market for tools in both cases flourished, owing to an insufficiency of imported implements and the competitiveness of the craftsmen. Establishing comparability is an important process that enlarges the possibility of historical generalization in ways that can feed back into an understanding of local conditions and options taken or foregone. There is a story about twentieth-century metal-working, tool supply and demand, resource availability and alternative opportunities that must be told before Schmidt can make good his insistence that archaeologists can supply a plausible alternative history.

This article has identified a certain body of archaeological literature and used it as a foil, in part to point up the dangers of static readings of ethnography that may entrap not just archaeologists but historians as well. The contributions of social historiography in probing the contingencies of the colonial era and carefully reappraising the documentation are complementary as well as corrective to assumptions about the retrieval and the past. Endless topics await the attention of historians. May we strive to meet the critical tests of *Alltagsgeschichte* – that it should combine empathy, rigour and, when called for, confrontation.

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Life and technology in everyday life: Mzee Stefano, master smelter


