Smithing in Africa, the enigma

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This article is about smiths, but not just about iron. Throughout much of Africa the one who wields the hammer, does a host of other things as well with little or no evident logical relations to metal work. My argument here develops from two starting points. First, the evidence of early African metalworking, a field that is rapidly developing and yields fascinating results that challenge the traditional archeological wisdom about early iron in Africa. Second, an observation in contemporary African societies, like the Kapsiki/Higi culture in Cameroon and Nigeria, where the main occupations of the smith are not in the forge but elsewhere, and throughout deeply embedded in local culture. A Kapsiki smith, for instance, is undertaker, healer, sorcerer, diviner, leather worker, musician, potter as well as blacksmith, both in iron and brass. While the specific array of specializations varies among ethnic groups, the fact that metal work is linked to other professional activities is very wide spread. That, I think, is a phenomenon that begs for an explanation, which I will zoom in on here.

In fact, this array of tasks raises the question why we call him a smith anyway. In fact, that is a question both of consensus among scholars, and the array of the specialization itself. The literature on smiths in Africa is growing quickly, and throughout use the term 'forgeron' or 'smith' as the international translation of the vernacular terms, like the Kapsiki *rerhè*.[1] So for comparative reasons, speaking about 'smiths' makes sense. But there is a more generic reason as well. Kapsiki/Higi culture defines almost all specializations that are part of their ecological adaptation as work of the *rerhè*, thus smith jobs, either exclusively so – like funerals – or dominated by smiths, like divination. Other groups in the Mandara Mountains, living in fact 'just around the corner' viewing the density of settlement in this region, have slightly different constellations of functions for the smiths (David & Sterner 2010, Wente-Lukas 1972, see also Tubiana 2008), but they always include metal work. Elsewhere in West and Central Africa – North Cameroon in fact is the border region between these large subcontinental areas – configurations of the specializations differ even more, but metal work is almost always among them. If artisan groups are organized in several separate groups, like in the Mande societies of West Africa where leatherworkers and bards are distinguished, there always is a group of smiths as well (sometimes even more than one!), who combine their metal work with other functions. So we call them smiths.

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[1] For the Mandara Mountains see Wade, Vincent, Podlevski, David, Sterner, Genest, and Lembezat. For Mande West Africa the work of Patrick McNaughton.

Thus, the general picture of the African smith is a profession which has at its core metal work, but almost always packs in other specializations, most of the time including magico-religious and healing functions. Metal in Africa is never alone. Metals are 'metals-plus' and that 'plus' is the core of my argument, and indeed the Kapsiki form a very clear case of the array of smith functions. Why does metal work always accrue so many 'sidelines', which may become even dominant? That general question has been addressed many times in the literature, and I will venture a comprehensive and comparative answer, however tentative. The metals involved are iron and brass, an alloy of copper and zinc[2]. Both metals not only each have their own technical exigencies, but also their own set of symbolic associations among several groups, including the Kapsiki. To have both metals symbolically charged is not unknown in Africa (Herbert 1984), but is not common, also not in the Mandara mountains, which gives the case of the Kapsiki smith as special flavor in this area. The Kapsiki smith clearly belongs to the 'transformer' type in its constellation of specializations, together with the better known Mafa smiths (David 2010, Podlewski 1966, Genest 1976), but among these is the only case with a brass casting tradition.

But the discussion on smiths in Africa centers on iron blacksmiths, not at all on brass or bronze, for the whole continent is 'into iron', while brass and bronze have a much more restricted distribution, especially if we limit it to the *cire perdu* technique. Other ways of casting copper or copper alloys are more widespread but produces a much more restricted array of objects (Herbert 1984). All African societies depend on iron technology, also the hunters/gatherers, so the history of 'iron-plus' is crucial for Africa, and indeed the theory on smiths in Africa does focus on iron. It also focuses on smelting, on the production of iron. The large discussions center on the furnaces, not on the forges, on the smelters and not on the smiths. But these debates are of relevance as the forging of iron always carries the larger umbrella of iron production; after all, when we speak of transforming and transformers, the fundamental transformation is from 'earth' to metal, and the transformation of bloom to tool is a secondary one, though often more closely associated with the smith craft.

The age of iron

Three technical questions dominate the present iron debate: the original provenance of the smelting technology, the invention of technical refinements of the melting process, and the astonishing variety of furnace types and melting techniques. The first question is, indeed, a classical anthropological one, between diffusion and independent invention. Given the archeological fact that for long the earliest furnaces have been excavated in Anatolia, the consensus holds that the first invention of iron production has been in that region. However, increasingly early dates for iron production sites have

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[2] For the inherent complexities of West African alloys, see Herbert 1984, 92-100.

been established in Africa, dates that are gradually crouching into the early first Millennium BCE, getting closer and closer to the earliest Anatolian ones[3]. So, quite a few African archeologists posit an independent invention of iron production in Africa, not per se earlier but independent. Not only the early dates are an argument, but also the rapid proliferation of furnace types as well as the deep engraining of iron production in African culture, my contemporaneous argument. And evidently, this question is not without its political and ideological consequences. African scholars, and many others with them, would love to have a major invention in Africa independent of the region where most of the crucial ecological revolutions have originated from. Even without the presumptuous Black Athena thesis, this would mean a welcome revaluation of African technological acumen.

But the notion of independent invention is not without its problems. The main issue is the absence of a previous copper technology in Africa, as it is difficult to envisage how an iron technology could develop without a metal smelting technique that demands much lower temperatures, also in the absence of fully developed pottery kilns. Also, the North Sahelian iron production dates seem to be the oldest, which fits in with diffusion from the North. Finally, this area is not overly suited for sustained production, as the ecological demands on especially wood for charcoal production seem soon to exceed the local resources.[4] At present the technological objections against independent invention have not been fully countered as yet, but anyway if diffusion is the case it must have been a fast and many-stranded diffusion of knowledge and techniques, possibly also of people. However, the evidence for independent invention seems to be mounting, but then this invention would have be done at least twice. The jury is still out on the issue, and probably the question will be resolved only when the political implications have faded away and the emotions assuaged.

The second question is the 'preheating hypothesis', as one of the possible partial inventions in Africa. The notion is straightforward: in any kind of furnace air has to be brought into the burning pile of charcoal and ore, either by natural draft (in high furnaces) or by forced draft, i.e. by bellows. In that latter case often in African furnaces long tuyères (earthenware blowing pipes) are used, which presumably lead into the air being pre-heated when finally blown into the fire, making for higher temperatures in the furnace, especially at the mouth of the tuyère. The debate centers on technical issues, mainly.[5] For the Mandara case this is relevant because in the special furnace type of the Mandara mountains, there can be no debate on the question whether or not preheating occurs, as in Mandara furnace the air is blown down through the fire column, and is preheated to a large extent. However, the effect of preheating in this case seems to be small (David &Sterner 2012), maybe even

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[3] Africa: 900-400 BCE, Anatolia: 1500-800 BCE.
[4] Haaland estimates for the Darfur region, with a similar climate, that two volumes of ore need four volumes of charcoal, to produce two volume of bloom iron and two volumes of slag (Haaland 1985: 62). However, de Barros stresses that the efficiency of the various techniques differed greatly, even with a factor 40! (de Barros 2000: 153). The exact parameters of these differences are not very clear.
[5] For a comprehensive treatment see Schmidt 1996.

negligible, and anyway even if the African preheating is an independent invention, it is by no means unique, as preheating and air blasting have been invented in Europe as well.

The third issue is the great variety of furnace types, which is astonishing indeed. From a technical standpoint there are just a few options for reduction in charcoal furnaces, and the African continent seems to have produced almost all possible options. That is not an argument for independent invention, I think, but more for the creativity of local adaptations independent of the original place of invention, and rather reflects the differences in qualities of iron ore, of wood for charcoal and clay type. The Mandara furnace is a special case, the only one with a top-to-bottom forced draught, and its provenance is not clear at all. It does produce specific blooms, and at least has made a sustained major production in one village, Sukur, possible. The variety in furnace types stands in curious contrast with the technique of lost wax brass casting, in which almost no variety seems to be possible (see below).

Iron plus

That is, for short the argument from archeology. But smelting is only a part of the picture. I started out with the notion of metal-plus, and that is precisely the aspect where the forge is more important that the furnace. The questions about these additions are in principle not technical, but social and religious. Three questions surface here, the first the specific array of additional functions, the second the tendency towards endogamy, and finally the third questions is on ranking, i.e. on the relations within the society as a whole. The actual array of the specializations, the 'plus', varies across the area, across the whole of West Africa in fact. Some commonalities emerge, though, in fact four clusters of the 'plus' specializations.

The first, the most universal cluster is the smith-potter combination, with the male smith working the iron and the smith woman as potter. As with all combinations, it has its exceptions, but it is a dominant one. The reason, maybe, resides in the notion of specialization itself. Given the male definition of smithing, about the only major specialization which is available for a woman is indeed potting. In those cases where pottery is not considered a specialization at the village level, the association does not hold. For instance, where villages as a whole specialize in pottery, as among the Dogon in Mali, all women pot and smith's women have no monopoly.

The second is burial, for the men. In an astonishing high proportion of West African cultures, the smith is funeral director, or at least has an important role in burial proceedings. The man of iron tends to be also the man of death. For a large part this undertaker role, forms the high point of a more general function, in ritual.

Third, healing with a large variation in importance between smith groups, forms another nexus, with magic – also the black variety – as a logical part of the healing function. For smith women similar options are child healing and midwifery, as throughout West Africa the association of smith

women with the welfare of children is rather strong. For the men, divination may be part of this healing function, though it does lead to its own proper specialization, often open for any people interested in the craft, or – in the case of inspirational divination (see Peek & van Beek 2012) – open for anyone 'called'.

The fourth option is music. In quite a few cases are the smiths also the musicians, though in other parts of West Africa this craft often demands its own endogamous group, the bards-*cum*-musicians. The same holds for leatherworking and carving, which are tied into the production of musical instruments first, and into status definition and ritual production second.

The most difficult question is the one pertaining to endogamy, that is often combined with notions of purity and pollution. For instance, Kapsiki smiths have different food habits than the non-smith, called *melu*, and the two groups do not eat together nor drink from the same vessel. Such a clear case of non-commensality is relatively rare (Wente-Lukas 1972, Schmitz-Cliever 1979), and a more straightforward endogamy without the notion of 'dirtiness' is more common, the simple fact being that smiths tend to marry among themselves. As an intra-Mandara comparison shows (David 2012) endogamy is not an either-or variable, but should be treated more as a continuum, in which also rule and practice not always coincide. Anyway, the combination of a marriage strategy with notions of pollution as an aspect of professional specialization, inevitably evokes the notion of caste.

In more general terms, the phenomenon is one of professional closure, and the association between group closure and professional specialization is much wider than the smith in Africa. Throughout history and all over the world, artisan groups have and have had the tendency to self organize or be organized into groups with clear boundaries and fixed relations between them. For this closure of artisan groups two major models are apt, guild and caste. In his classic 'The Preindustrial City' Sjoberg (1960) noted that 'The most obvious aspect of the preindustrial city's economic organization is its guild system, one that pervades manufacturing, trade, and services, even marginal forms of economic activity like begging and thievery'. And 'the overwhelming number of craftsmen, merchants, and persons in service occupations are organized along guild lines'(1960: 187, 188). Hobsbawn calls it a 'type of organization which appears to be quite universal wherever and whenever there are preindustrial cities' (Hobsbawn 1971: 111[6]). The formation of larger and more centralized polities may have boosted the institutionalization of guilds as well, as exemplified by the rise of guilds after the installment of the Ottoman empire (Faraqh 2009, 26-27).

Guilds have arisen all over the world, always in cities, where they were either under the tutelage of the ruler, or – gradually – formed a kind of civil society (Black 1984) and in some cases took over the city in terms of power. In principle a guild is a voluntary association of free people who share the same craft, and organize into a fraternity of colleagues. The guild was made up by experienced and confirmed experts in their field of handicraft, called master craftsmen. Before a new

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[6] Cited in Black 1984: 7

employee could rise to the level of mastery, he had to go through a protracted schooling period during which he was first called an apprentice. After this period he could rise to the level of journeyman. Apprentices would typically not learn more than the most basic techniques until they were trusted by their peers to keep the guild's or company's secrets. Guilds regulated the craft, but also monopolized it, thus eliminating, in principle, free competition, which in the end proved their undoing.

Crucial for guilds are a high level of organization and a guild ethos, as they did 'provide a *milieu moral* for their members'[7], who should consider each other as 'brothers' or 'friends', and had to defend the 'honor of their trade', as well as the standards of their craftsmanship. From an African perspective surprisingly little is mentioned in guild literature on the relation with family. Black notes: 'At no point, it would seem, did they [the guilds] outweigh family ties which, craft guild membership usually being hereditary, were actually incorporated in the guild system' (Black 1984: 27). Though the son of a Carpenter often became Carpenter as that road was wide open to him, in principle, and often in practice, guilds were open associations, where that son of a Carpenter could apply for apprenticeship in a Weaver guild. The core of the guild system was the regulation of new craftsmen, through a thorough and long training system. This transmission of knowledge resulted in high of standards of performance on the one hand, and in a focus on esoteric aspects of the knowledge on the other, the 'secrets of the craft' (Faracq 2009:67).

West African gradients

In quite a few West African cultures, the smiths have been compared to guilds indeed. This is a popular description in cultures far to the South of the Mandara Mountains, such as among the Ibo, Ewe, Akpafu, and less explicit Krun, Dan and Losso (Burkina Faso)[8]. Especially in cultures engaging in initiation into secret societies, like *poro* and *sande* (Bellman 1986), smiths are important as mask makers as well as mask chiefs, and there the smith position is invariably very high, as members of a deeply respected and often feared craft. In most of these forest based societies, recruitment to the non-endogamous smith profession is not exclusively on the basis of descent, but smiths also take non-kin pupils, a crucial indicator.

For a considerable part, these are also the cultures engaging in *cire perdu* brass casting. Brass casting has a specific distribution with a large presence in the South and the West of the subcontinent. Probably because of this association, brass seems not to correlate with the formation of endogamous groups, though the brass casters and the smiths tend not to be the same subgroup, even if they all fall under the category 'smith'. Clear however is that brass casting smiths and gold/silver smiths tend to be highly ranked profession in these societies. These West African groups of smiths are quite comparable with guilds, as they are recruiting by free association, and do have a concise internal organization,

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[7] Black 1984: 26, italics in original.
[8] Consulting the list of Schmitz-Cliever (1979).

though not to the extent that there are master pieces to be produced in a three tiered learning system. Guilds in Medieval Europe were not endogamous, especially the smaller ones, even if an intra-guild marriage would facilitate apprenticeship and general acceptance within the city community. The African situation is different, as the smiths guilds, also the brass casters, are much less urban, more integrated with village life as well, where not only the regulation of production is important but also the esoteric side of the knowledge, the 'power' of the smith (McNaughton 1988). Within the group a smith may choose his specialization, and then does have to go into training, and any on the job training is easier done with kinsmen than with non-kin. But the kin relations between smiths are so dense that with any other smith some kind of kin relationship is easily found. So the comparison with guild is more apt in the western part of West Africa, also the region with the densest population and the most urbanized one, suitable for guilds.

West Africa shows several other gradients in the relative position of the smiths. We saw the association between secret societies, brass casting and a high position of smiths in the forest based cultures, in fact forming a North–South gradient in West Africa. But also an important West–East gradient is clear in the savanna region, with the Mande area in the West showing a more complicated system of occupational groups, which are often called castes, such as in the case of the Bambara, Malinke, Soninke, Kuranko, and even the Dogon and Songhai.[9] In the East, towards the more central part of Africa, especially in the region South of Lake Tchad with as its core the Mandara Mountains, most of the relevant specializations are reserved only for one separate group of the smiths, occupations that are always centered around iron. On the Western and Eastern flanks of this gradient, the smiths are more or less nomadic groups, e.g. Bikom, Rukuba, Dyerma, Ibo and Kpelle, or often form or stem from separate ethnic groups, Bororo, Tamachek and Dakari. Relations between smith and power, as well as religious functions for smiths are found throughout the region, with no particular centre, and the same holds for the smith woman as potter.[10]

So it is in the more Eastern part of the subcontinent that the other model, that of caste, is relevant. There, the tendency towards endogamy among the smiths is one main argument why the debate on caste is relevant, a debate which leads into more general theory of social inequality and stratification. In the Kapsiki-Higi case both endogamy and purity/pollution are crucial, including specific food taboos, but that does not hold for all smith groups. Yet, in the larger region the tendency to combine craft specialization and endogamy is marked enough to generate a more general debate on the term 'caste' than just for the Mandara area. Usually reserved for the Indian subcontinent (though the word stems from Portuguese – *casta,* something non-mixed), some cultural aspects of the smith/non-smith division look remarkable like the Indian caste system. For instance the Kapsiki smith group combines hierarchy, notions of pollution, endogamy, special occupation and specific food habits, a cluster of features that positively invites the comparison with Indian caste systems.

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[9] Again, Schmitz-Cliever 1979.

[10] This runs parallel with Childs' division in unstratified – stratified societies, Childs 1993:329.

Yet, many scholars working on smiths in West Africa are reticent to use the term 'caste', and so am I. 'Caste-like', or in French the slightly ambiguous *casté*, or more cautious still 'endogamous professional group' are the terms of choice, thus avoiding the implicit identification with the Indian subcontinent, if only by a shallow margin. A for West Africa suitable definition runs: 'a specialist endogamous group socially differentiated by prescribed behavior and genealogically inherited professional capacities' (McNaughton 1988: 165), but in fact this definition includes Indian castes as well. The overview of Schmitz-Cliever (1979) shows that the older ethnographers had less compunction in using 'caste' than the more recent anthropologists. There are two reasons to shun the use of 'caste'; the first is a general movement of anthropology away from large scale comparison, feeding into a proclivity of Indianists to consider the Indian caste system as *sui generis*, beyond comparison. For instance, Dipandar Gupta (2005:410) argues that the 'obsessive attention to the slightest variation in ritual ranking … marks out caste from other forms of stratification'. Though the extreme ends of a continuum can accrue special characteristics, this does not preclude comparison; anthropology should never abandon half of its fundamental project, engaging not only in ethnographic description but definitely also in wide ranging comparison.

The second reason is more valid: the notion of a caste-*system* is not nearly as clear as in India, and many Indologists, like Dumont, have stressed the idea of a system. The Indian hierarchy with four *varna* each with thousands of distinct *yati*, plus hosts of castes or 'tribal groups' outside the *varna* system, all of them set in a complex political and geographical framework, is a rather far cry from the superimposition of just two layers, smith and non-smith inside a lineage based society. Also absent in West Africa, for a large part, is the huge influence of religion; even if smiths are constantly defined and redefined as a separate group in Kapsiki religion, there is no way in which one could state that the whole system is 'religiously generated', as scholars of Indian caste often do (Dumont 1980, 2006). Also demographics are very different. The non-smith group in Kapsiki comprises about 95% of the society, the *rerhè* 5%, so in fact there is just one dominant group plus one caste. Indian castes form a complex – and continuously shifting – pyramid, even several competing pyramids, with a relatively small elite and a huge body of lower echelons.[11] If we would represent Kapsiki society by a pyramid, it would be an inverted one, with a narrow base, the smiths, while the bulk of the population forms the main body of the pyramid above them.

Smith and inequality

For our smith case this means several things. First, social echelons are a pervasive feature of West African life, and despite the inevitable social cost of rigid social echelons such a system must have

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[11] Even the model of a pyramid might be wrong, if we follow Quigley 1993, 1994. See also for this fundamental discussion Heesterman 1985, Kolenda 1980, Millner 1994, Poggo 2006, Smaje 2000 and Snodgrass 2006.

survival qualities in offering feasible socio-technical solutions for the challenges facing the society as a whole. *Homo hierarchicus* has his social logic. Also, we have to consider the whole array of occupational specializations if we are to understand their unique position as part of the larger society, viewing them as a nodal point in a socio-occupational network. However, notions of inequality will have to be integrated into the dominant African kinship discourse as the village level is more dominant in Africa than in India. Kinship and lineage organization form the dominant discourse, sometimes overriding vertical distinctions. Marital relations similarly are used to bond as well as to separate. The combination of kinship with territoriality, like in the *yati* case, in Africa brings in ethnicity, often undervalued in the smith literature, i.e. through their very mobility. De Barros (2000) indicates that historically iron smiths often had their own ethnic identity, or formed migrating lineages of ethnic groups, or at least were quite mobile. The deeply rooted identity of many African ethnic groups – at least in their historic discourses – is not for the smiths; in many case they are the indwelling newcomers, the strangers-that-belong. This mobility of the smith can have various reasons; for the smelters the depletion of resources, for smelters and smiths the control of an ambitious king over their production, and throughout history for all iron workers the economic need to disperse evenly over towns and villages (de Barros 2000: 184-6), as a service industry for farming.

Second, also in the case of smiths we should not surmise a timeless institution. Despite its legitimacy as being traditional, the smiths' position must have changed through times, and now is changing rapidly again. Specific historic conditions have led to the formation of caste-like social formations, conditions that are not unique but might be unique in their configuration. So we have to delve into the large scale history of the region area in order to view the rise of the caste-like institutions. Thus, the deep history of West African state formation, including its history of slavery and slave raiding (the exploitation factor) should be drawn into the interpretive and explanatory model, as well as the early cities in the region.

Third, the internal organization plus its links with similar groups and the majority of the society, have to be viewed as a relational system, including the politics of knowledge and the monopolization of production and trade are crucial. Finally, the very content of the specializations, and the logic of their interaction, the intricacies of the craft and transmission of knowledge, as well as the exigencies of specific knowledge systems have to be set against the external dynamics. Why this ordering and ranking of the smiths, as either a lower or a higher group? And, in the Kapsiki case – and in the majority of the Mandara cultures – why is a group that is as essential as the smiths' one, ranked so low?

My *a priori* is that we try to explain differences, not similarity, which in part stems from my own cultural proclivity to problematize human inequality[12]. So my attempt at an explanatory chain runs as follows. Craft knowledge is always a social process, and especially metallurgy is an embodied and social activity, so the craft of ironwork has its own political economy/ecology, easily leading to a

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[12] See Ingliss & Bone 2006.

distinctness of the artisan. This distinction can be articulated in several fashions, depending on the techno-ecological adaptation characterizing that particular society, including its division of labor. This adaptation in turn is informed by the political, economic and ecological history of the larger area. Given this historical adaptation, local identity politics and internal cultural logic integrate the local definition of the smith into a system of meaning. Let us see what the main factors are.

The village based horticultural societies of West Africa with their pre-industrial iron technology produce a small surplus only, in which a limited division of labor is feasible. Of the limited number of crafts possible, only the iron smith is absolutely essential, as only that craft is difficult enough to need a long learning period, while they have to be in the immediate vicinity of the users of their products.

> The early iron age of the Middle East, Iron I, provides a good example of what happens when that latter condition is not met. In I Samuel 13 a situation of blacksmith' scarcity is portrayed:
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> 13:19 A blacksmith could not be found in all the land of Israel, for the Philistines had said, 'This will prevent the Hebrews from making swords and spears.' 13:20 So all Israel had to go down to the Philistines in order to get their plowshares, cutting instruments, axes, and sickles sharpened. 13:21 They charged two-thirds of a shekel to sharpen plowshares and cutting instruments, and a third of a shekel to sharpen picks and axes, and to set ox goads. 13:22 So on the day of the battle no sword or spear was to be found in the hand of anyone in the army that was with Saul and Jonathan. No one but Saul and his son Jonathan had them.
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> Here Israel is depicted as a full-blown iron ecology without local smiths, which cries for explanation. Generally, the meaning is construed as a means to highlight the dependency of Israel on the Philistines: what better image could be found than 'we had no blacksmiths'.[13]

African pre-colonial cultures knew few technologies as intricate, difficult and spectacular as metal work, especially smelting and casting, so from a materialist perspective this is one technology that can easily stand out. Wood carving, plaiting, weaving, pottery, leatherwork, but also singing, drumming and recitation require their own expertise, but they do seem to stand closer to everyday experience, lacking the danger of the fire, the stubborn hardness of the material and the need for a separate infrastructure, the smithy. And of course, smiths' products are absolutely essential in food production and war, so life-as-Africa-knows-it simply would not be possible without them. Iron is crucial, and so is the smith. But that does not explain the whole gamut of specializations, the iron-plus, neither does it say anything about the endogamy, nor about hierarchy or religion. Why do specializations coagulate?

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[13] The historic exactness of the text is dubious for several reasons. First, the line reads like an editor's comment inserted at the time this text got its final editing in the post-exilic phase of scripture construction. So like other lines in the same chapter (I Sam. 10:12b) it harkens back to the old days, looking from the 5th back to the 10th century BCE. Second, the scene in the 10th century BCE depicts a fully agricultural society, i.e. with plows and shares, not a horticultural one with just hoes, is probably an anachronism. Also, if smiths were a later introduction in Israel, this would have been mentioned as part of the deliverance from the Sea People (Philistines).

The caste system gives a clue here, as here too the association between occupation and *yati* is close, but never definite, never fully closed, and also here the *yati* identification remains long after the occupation has gone, especially in a modern urban setting. In villages being born in a *yati* points to a preferred occupation by excluding most other options, thus leaving just a few options open for individual and collective agency, but in the city all new jobs are open to almost anyone. So castes may be a limiting case of the institutionalization of the division of labor, still with some flexibility.

Smith, state and slavery

What are the possible influences of state formation on the organization of specializations? The history of state formation in West Africa is dominated by an West-East gradient of state formations: after the empires of Ghana (in Senegal-Mauretania) and Mande (Mali, Guinea) a series of *jihad*-triggered Islamic reform movements, from Futa Jallon in the 14th century till the largest one, the Usman dan Fodio *jihad* that resulted in the Sokoto Caliphate in the 19th century. These large scale empires contrast with the much more local kingdoms of the West African Coast, like Asante, Benin or the Yoruba states. Two elements are important in state formation, the availability of weapons and slavery. For a centralizing state, for any predator state like the polities in the West African savanna have been, control over smith production is crucial, and either creating or officializing a hereditary position of smiths does offer some guarantee for a constant supply of craftsmen. Of course, a court generates other specialties as well, like the bards/musicians who may have formed their caste-like organization in the early phase of the Mande realm, but the crucial position of the smith in state formation is undisputed.

> In 1825 Major Denham describes in detail the two days' siege of Musfeia [Maroua] by the sultan of Wandala, the Moslem emirate at the North rim of the Mandara Mountains. During the night it was difficult to sleep, he writes, as a constant barrage of hammering came from the town: the local smiths worked through the night to replace the weapons of the defenders. The next morning the sultan of the Wandala let his guests take the lead in the attack, which failed. Denham escaped just by skin of his neck. (Denham 1825)

Besides this military necessity, a system of endogamous craft groups provides a handy order for any ruler or elite, in fact like the guilds in medieval cities. Such a system assures a diversified production under tutelage of the ruler, regulates competition, guarantees the transmission of knowledge and links the various crafts into a network of mutual obligations. Closed craft groups bring order and stability to a realm, and are needed for war as well. Cities appeared with these states, and cities are crucial in the formation of multi-tiered system of inequality. The same West-East gradient is discernible again, the first cities in the West of the subcontinent developing centuries before the earliest Eastern ones.

Effectively, hierarchy is built into such a system, first through the suzerainty of the elite under which it operates, second through the relations the crafts have with that elite and with each other and finally through the relative pricing of the products; after all, in the Israel example we saw the prices of smiths' work explicitly mentioned (probably because they were quite expensive). Closeness to the court would be one factor to establish a higher status of the craft – such as in the case of the Mande *jeli*, bards (Jansen 2000) – but then those inter-craft differences will continue to shift, and be renegotiated continuously. That is exactly the situation Quigley analyses as the core of the caste system, an ever shifting circle of occupational *yati* around a ruler, including the Brahmans (Quigley 1993, 1994), vying for status in the *varna* system. Again, West African processes are quite comparable.

The differences are relevant as well, i.e. in religion, degree of urbanization and the crucial factor of slavery in Africa, probably the principal distinguishing factor between the two areas. In my view, slavery takes the explanatory place of the religious pollution complex in Dumont's analysis. Slavery is one major theme that runs throughout West African history, and does have a clear and unbreakable link with iron, so with smiths. In the Mandara area this link was obvious. Scott MacEachern relates how the mountain people traded iron with the Wandala emirate, against salt and fish, but on the other hand were enslaved by their trading 'partners', or as a *montagnard* put it: 'They bought our iron, then used it to make the shackles they held us with' MacEachern (1993: 260). As Denham's incident shows, slave raiding was part of general warfare in the area, an ever present threat for the people living in mountains. The search for refuge has been one of the reasons for settling the mountains, so by no means the only one, and much earlier that the arrival of the jihadists. Whatever its actual incidence in history, slavery has been extremely important, both slave raiding and what has been called the 'slave mode of production' (Lovejoy 2005), the use of slaves in state building. Slaves were essential for plantation labor (Klein, Lovejoy 2005: 153ff), as domestic slaves (117ff) and simply for progeny, but then women (Lovejoy 2005:81 ff). Craftsmen usually were not enslaved but their products were crucial for trade, like the iron produced in the Mandara Mountains. These empires did have a continuous hunger for slaves (van Beek 1992) and organized small or large slave raids like the one described by Denham, above. In fact the open countryside of the Sudan permitted easy travel, on foot or horseback for the war parties, and for the victim populations offered only a limited number of places for refuge, just a few mountain areas and some major inundation zones. On these rugged hillsides populations who wanted to stay 'out of history' could defend themselves against the marauding Muslim, the Mandara mountains being one of these places. In between the plantation economy and the slave raids, important slave markets have flourished, such as Mora, just north of the Mandara, seat of the Wandala emirate, mentioned above.

The mountain populations like the Kapsiki did not readily submit to this threat and fought back wherever they could, even if they faced a better organized enemy with superior armament (van Beek 1992), i.e. mounted marauders, later armed also with guns. They did also have their own,

internal warfare and slavery, catching enemies – in Kapsiki, people from other villages – to sell to slave merchants, or to have them ransomed back by their kinsmen (van Beek 1989). The total toll in loss of life is hard to establish, though the tales of horror about one particular Fulbe chief, Hamman Yaji from the Nigerian side of the Kapsiki/Higi still reverberate through the whole mountain area (Vaughan & Kirk-Greene 1989, van Beek 2010). But whatever the loss of life, the main effect was one of high insecurity, a Hobbesian situation of 'Warre', of armed conflict against each and everyone.

For our smiths' group this meant several things. First, weapons involve iron, barbed spearheads, arrow points, iron clubs, throwing knives and later also shields (the earlier versions were from buffalo hide, but also a smith product). The tales people tell about war, internal as well as external, keep the smiths themselves out of the fray; the craftsmen are essentially non-fighters who make war possible. Like women. Second, the smiths furnished the poison for the arrows, and provided medical services after the battlefield as well, antidote as well as wound dressings. Agriculture was not possible without the smiths' products, but war made that dependency immediately visible.

The third effect is more profound, I think. Slavery is hierarchy incorporated and inequality hammered in. With iron. The presence of slavery and the continuous threat of slave raiding make one thing above all crystal clear: people are not equal. Either by descent or by accident, people are or become fundamentally unequal. The notion of slavery is rather complex, and the strictly legalistic definition as 'someone who is not a subject but an object', i.e. slavery as a property relationship, is not very helpful. Better is Patterson's definition as 'an institutionalized alienation from rights of labor and kinship' (Patterson 2006: 136) as this reserves more room for different kinds of bondage such as serfdom and debt pawnship as well as the distinction between house and chattel slaves (Lovejoy 2005: 355ff). Slaves have no rights to their own products and lack the natural rights that should accrue to their kinship relations; in slavery the relation with the master is dominant and compulsory. Slave raiding generates a world view in which the other is the enemy, and as all others are enemies, the enemy is always stronger and more numerous than oneself. This is, essentially, a minority worldview, and as such an inferiority one. Slave raiding creates victim populations, which tend to fragment and very seldom organize at a higher echelon than the village level (van Beek 1992). My point is here, that such a worldview makes ranking of categories easy and acceptable, not only outside the own society but also within, generating a pervading experience of inequality.

Once enslaved the loss of rights is permanent and in most cases hereditary. West Africa, especially in the last few centuries before colonization, was replete with slave groups, either slave villages in a kind of plantation system producing for their emir or laves in households. For instance a Muslim emirate like Sokoto fed on slaves. The Caliphate in its heydays kept a huge court[14], having to

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[14] See M. Klein, 'Sex, power and family life in the harem, a comparative study', in G. Campbell, S. Miers & J. Miller (eds.) *Women and Slavery, vol 1, Africa, the Indian Ocean World and he Medieval North Atlantic* (Athens, 2007), 63-81, for an analysis of the seemingly most irrational side of the court, the harem.

realise a standing army, crop production as well as slaves for domestic purposes. For some realms guarding cattle has been an important slave task, as transhumance was organised mainly through slave labour in some emirates. So most emirates in this part of Africa had many uses for slaves, so were slave-hungry; in fact, the machinery of the state largely ran on slaves. Many slaves were put to crop production, in plantation villages which produced a variety of food crops. These agricultural slaves lived in separate villages, supervised by other slaves, and worked the morning and the early afternoon on the masters' fields, and the rest of their time in their own. Though bearable in peace time, their situation worsened when war induced a higher production.[15]

Lovejoy estimates that at the time of the collapse of the trans-Atlantic slave trade Adamawa, the Sokoto province that includes the Mandara mountains, exported 5000 slaves per year to Sokoto, 'a policy of relocation on a gigantic scale'[16]. Though not all of these were 'pagans', as against accepted custom also some Muslim were enslaved, the 'land of enslavement' was definitely the area where 'unbelief' reigned[17]. The great majority of the slaves entered into production, as nearly all edible and tradable products came from slaves, with the huge and labor intensive cloth production as one major industry[18].

'Under the guise of pursuing the *jihad*, slave raiding and war were institutionalized into a

coercive system for the mobilisation of labor and for the redistribution of peasant output.'[19]

Smiths are seldom mentioned in these texts, and oral history concurs in that they stayed out of the fray, and usually were not enslaved. Their products were too important for war Also, they usually did not fight themselves, just furnishing the wherewithal's, so ran much less risk of enslavement; theirs is an inside job, with the smithy close to the home inside the village, the craft a rooted one. Also, as they did not fight in the internal wars, they were not captured and sold either. But whatever the actual involvement of smiths in the slave system, the argument of slavery as a societal model holds here even stronger. The fundamental hierarchical division in West Africa is between nobles and slaves, reminiscent of Dumont's emblematic opposition between Brahmans and Untouchables in the Hindu caste system (Dumont 1980, 2006). Here the skewed demographics of the smiths (5%) is of less importance, as in the Muslim states between 30 and 60% of the population was slave, which meant for the Sokoto Caliphate a total number of slaves running into the millions (Lovejoy 2005:3).

The oldest realms of Ghana and Mande were not Muslim, but from the 12th century all major polities shared an Islam ideology in which slavery is deeply rooted: 'Throughout the whole Islamic history down to the nineteenth century, slavery has always been an institution tenacious of life and

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[15] P. Lovejoy, *Slavery, commerce and production in the Sokoto Caliphate of West Africa* (Trenton, 2005).
[16] *Ibid*. 15, 192
[17] *Ibid*. 20.
[18] Barth, *Reisen* II, 190-196.
[19] Lovejoy, *Slavery, commerce*, 175.

deeply rooted in custom'[20]. With the advent of Islam, inequalities intensified. Islamic doctrine proscribes the enslavement of fellow Muslim, but that rule was not always heeded, as in fact the jihad movements that generated the state formation processes zoomed in on Muslim rulers who were deemed lax in the observation of Islam; often they were accused of 'siding with the idolators', the non-Islamic populations they ruled over. In quite a few cases the cooperation of Muslim rulers with 'pagan' chiefs was forced because the emirate was attacked by another Muslim warlord.[21] A fundamental contradiction at the very heart of Islamic ideology generates this polarity between human beings. On the one hand, all men are equal before Allah, but on the other hand the distinction between believers and unbelievers is deep and lasting. In the case of slavery, the chasm becomes unbridgeable, as once enslaved also conversion to Islam does not free the ex-slave, not even those Muslims enslaved by mistake could be free again. So a religion of open access becomes an ideology of closure, and the ideal of equal submission becomes a reality of structural inequality. This Islamic contradiction resonates with the general ideology of Fulbe social life, the group which was at the core of the West African jihad. In Fulbe culture, based upon nomadic pastoralism, an ethos of equality combines with clear hierarchies, both between them and all 'others' – especially the horticultural societies they live between – and internally between the various Fulbe groups, and their chiefs (De Bruijn & van Dijk 1995). Freedom and equality in nomadic life as well as in Islam, is just for the in-group and even in a recruiting religion this means an exclusive, clausulated equality. So in the end Islam is an ideology that stimulates and supports inequality, not only for slaves – the limiting case of inequality – but also for craftsmen. In the Islamic cities craft guilds have been a lasting feature, and still are, also with hierarchies between them ((Faraqh 2009).

If the noble - slave opposition is reminiscent of the Brahmin – untouchable dichotomy, the position of the smith is hierarchical, though in a varying way. To an extent his 'otherness' is cast in the same discourse, as either lower or higher, but then in an encompassing fashion. McNaughton uses the analogy of a 'joking relationship' a notion strongly institutionalized in the Mande area (Mc Naughton 1988: 10) with also endogamous repercussions. Though this aspect is clearer in the western than in the central region, it highlights both difference and bonding. In the Kapsiki case there is more to the relation of inequality than joking. Inequalities are not only larger, but much more charged, loaded with social and symbolic meaning. Within the model of an encompassing hierarchy, the smith status is definitely lower, made all the more poignant through the pollution/food taboo complex. If Islamic state formation has been a factor indeed, the lower rank of the smiths, in fact of all craft groups, forms part of the Islamic state formation complex, elitist as it is. Characteristically, smiths in Central Africa, far

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[20] R. Brunsvig, cited in O. Patterson 2006: 124. The same holds for India, by the way, as the Mughal empires, Muslim as well, have at least solidified the caste system (Baily 1999)

[21] For instance, when El Hadj Umar attacked the Masina state of Cheick Amadou, he did this under this pretense, but the very pious Amadou only cooperated with the 'pagans' under the threat of this war (van Beek 1992).

away from any pastoral nomadic influence, occupy the social high ground, and are closely associated with kingship.

A crucial discourse is kinship. Indian caste identity is shot through with kinship (Quigley 1993), a discourse seemingly at odds with the closed groups generated by endogamy. But in the end also *yati* organization is kin based. In African society the dominance of kinship is uncontested, though often more in terms of descent than of affinity. Smiths, as said, often form an endogamous group, yet are still considered kinsmen in the village. Various mechanisms allow for this exclusion-through-inclusion, ranging from separate but recognized smith lineages to inclusion of the smiths in regular lineages. Throughout, local discourse defines the smith in kinship terms, as 'children of the village' or as 'woman of the village'. This characterization, however, illustrates one fundamental aspect of the generalized kinship discourse, i.e. its hierarchical nature. Kinship indicates always two principles at the same time, bonding and difference. Kin terms express a close but partial identity, bonding over the chasms of generation, age or gender in order to bind lineages together as brothers or sisters. But the hierarchies of the same principles, generation, age and gender, are stressed even in bonding expressions: father and son are close, but vertically, brothers are identical but one is older than the other, spouses form one union but through difference. *Homo hiërarchicus* is at home in the family. This underlines Dumont's thesis that hierarchy is a form of holism, creating a system where everyone has his own, specific and different, place (Dumont 1980). This basic discourse also conflates the opposition between equality and hierarchy. However different people may be, they still are kinsmen, and however close they are, there is an inalienable bond between them: the bond of difference and the equality of hierarchy.

So, there, finally is the smith, the one who belongs and does not belong. He unites in his many crafts all those tasks that are part of normal daily life, but still not fully so. His tasks demand expertise that is part of the general cultural repertoire, but can never be available for everyone. The smith is the insider-outsider, and as such deeply embedded within the local or regional cultures. The many configurations of his various positions, the actual composition of his various crafts, his specific relation towards the dominant non-smith groups, and the religious connotations of these relations, all depend on specific historical and ecological factors. But throughout, we are dealing here with a phenomenon which has deep roots in the Africans carved out a living in their soil, not a recent phenomenon nor a fleeting one. The smiths' position has waxed and waned with the incidence of slavery, but that very notion of inequality combined with the closure orientation of the craft itself, gives us a tool to interpret the smith's craft as one of the deep realities of African life.

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