

The origins and development of
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Archaeology, genetics, linguistics
and ethnography

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A history of pigs in Africa

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1. Introduction

The history of the domestic pig in Africa is highly controversial. Its ancestor, the wild pig, *Sus scrofa*, is native to North Africa, and its range extends along the Atlantic coast at least as far as the Rio de Oro. The Maghreb race is sometimes known as *Sus scrofa barbarus* and there was in addition a Saharan race known as *sahariensis* (Epstein 1971i:314). A more recent classification conjoins these into a single race *Sus scrofa algira* (Groves 1981:29). There is no positive evidence for the domestication of the pig in Africa although this was argued by some writers in the early part of this century (Epstein 1971ii). *Sus scrofa* gave rise to all domesticated pigs and it continues to thrive in the wild.

The wild pigs of Africa are the warthog, *Phacochoerus aethiopicus*, the giant forest hog, *Hylochoerus meinertzhageni* and the bush-pig, *Potamochoerus porcus*, none of which mate with domestic pigs and have thus made no contribution to its characteristics (Haltenorth & Diller 1980). Archaeologically, however, these species may be difficult to distinguish from bones of domestic pigs.

The history of pigs in sub-Saharan Africa is blurred by the circumstance that very large numbers of European pig breeds were brought to all parts of the continent with European contact, both as part of undocumented subsistence strategies (as with Portuguese introductions) and in conjunction with missionary and colonial agricultural development projects. In contrast to ruminants, these introductions thrived in what was an unfamiliar disease and climatic regime and crossed freely with resident populations. The genetic heritage of today's African pig populations is thus extremely mixed.

Another aspect of the history of pigs in Africa that is crucial when contrasting its distribution today with evidence for its former extension; the presence of Islam. Islam forbids Muslims to eat pork and this is usually interpreted as a prohibition on any sort of contact with pigs. Muslims living in multi-religion communities have tolerated pigs kept by others and indeed often make use of pigs or pork for magical purposes (see examples in Epstein 1971ii:330). Where Islam becomes dominant all pig production is forbidden and this has been responsible for the disappearance of pigs from a wide swathe of Africa in historic times. The Ethiopian Christian

church, whose dietary prohibitions are usually based on the Old Testament, also bans the eating of pork and for this reason the pigs in Ethiopia are confined to the non-Christian regions in the west of the country. Some scholars believe that there was also a pork taboo in Ancient Egypt, accounting for the relative scarcity of pig remains in the Old and Middle Kingdoms compared with the pre-dynastic period. Brewer et al. (1994:96) summarize the arguments for and against this hypothesis.

For reasons unconnected with their economic importance, pigs have been relatively little researched in Africa. Doutressoulle (1947) and Mason & Maule (1960) both devote only a couple of pages to pigs, recounting frankly anecdotal material. During its years of operation, the International Livestock Centre for Africa in Addis Ababa excluded all research on pigs. This may be connected with prejudice against pigs from potential donor agencies but it also reflects a questionable belief that pigs compete with human beings for food. As a consequence, information about the distribution, productivity and genetic affiliations of African pigs is patchy and unreliable.

As in so many areas of African economic prehistory, Murdock (1959) made a number of innovative suggestions in relation to the antiquity of pig-keeping. He argued that the degree of ritual embedding in a culture can be taken as evidence of relative antiquity and gives several examples of the importance of pigs in ritual life. Epstein (1971ii:346) seems also to have leant to this view although he does not state it unequivocally. This chapter seeks to re-evaluate some of these arguments in the light of more recent research and to argue that the pig *is* a major species of African domestic stock. Cultural and linguistic evidence suggests that pigs were present in much of west-central and Equatorial Africa and that this fact has been obscured by researchers' stereotypes of its recent introduction.

2. Breed types

The pigs of sub-Saharan Africa are conventionally divided into two major types; the so-called "indigenous" pig and the introduced exotic breeds. The indigenous types are usually black or pied with medium, semi-erect, swept-back ears, a straight tail and a long snout. These are now found only in remote areas, especially in hill regions where there has been less opportunity to mate with incoming exotics. Wall-paintings and pottery representations suggest that the pigs of Ancient Egypt were black and that the piglets had striped underparts, suggesting a closeness to the wild boar. Although authors such as Mason (1988) group the West African "indigenous" pig such as the Ashanti Dwarf (Ghana) and the Bakosi (Cameroon) into the "West African", an Iberian type, it has nowhere been demonstrated that all the pigs of this type are indeed of Portuguese origin.

The exotic pigs in Africa that arrived in the colonial period came originally from Europe, America and the Far East. Almost all modern piggeries use exclusively exotics, especially Large White, Landrace, Duroc and Hampshire (RIM 1992ii, for Nigerian evidence). Most of the pigs found among smallholders in South Africa

proper are of two European breeds, the Windsor and the Koinbroek. There are, however, residual populations of Chinese-style lard pigs in northeast Zimbabwe and adjacent Mozambique, apparently brought from Macau via the Portuguese Indian Ocean trade (Ellert 1993).

Under traditional management the exotics were allowed to breed uncontrolled with local races. The crossbred progeny of exotic and indigenous pigs take on the characteristics of the former, as the exotic breeds are highly prepotent. When crossbred stock mate they produce a high proportion of progeny resembling the indigenous founder stock. After a few generations only traces of the exotic influence will be left.

3. Archaeological evidence

Pigs are usually thought to have been domesticated in Anatolia and the earliest archaeological finds of pigs date back to 7000 BC (Epstein & Bichard 1984). Pigs presumed to have been domesticated were kept in the Ancient Near East and Egypt from the end of the fifth millennium BC. So many bones have been recovered from the pre-Dynastic site of Merimde that it is assumed the population was raising pigs on a large scale (Brewer et al. 1994:97). None of this, however, constitutes direct evidence for the original locale of pig domestication; indeed the domestication of these early swine is often inferred from the contexts of their bones rather than their osteology. It would be appropriate, therefore, to keep open the possibility that pigs were either domesticated several times in this region or that they were indeed domesticated in Africa, as earlier authors thought.

Archaeological evidence for the distribution of the domestic pig in Africa might tactfully be described as slight. Iconographic evidence for pig production in the Egyptian Old and Middle Kingdoms is scarce, although by the period of the New Kingdom era there is not only an increase in depictions but also evidence of intensive pig production at Amarna (Kemp 1989:256).

In sub-Saharan Africa the situation is still less encouraging. Only two sites reviewed in this book contain bones of domestic pig, and one of these, Nkile in Zaïre, is nineteenth century (see Van Neer, Ch. 9 in this volume). Voigt & von den Driesch (1984) report a tentatively identified domestic pig from the ninth century site at Ndongwane in Natal. As Plug (1996) points out, this has yet to be confirmed in other southern African sites. There are a number of reasons for this lack of evidence:

- (1) The ethnographic evidence suggests that pig-keeping is only sporadic even in areas where it is well-established.
- (2) Detailed archaeozoological studies on large bone assemblages in the areas suggested are very rare.
- (3) Only certain skeletal elements are diagnostic of *Sus*, for example, the teeth. Other bones may easily be confused with various wild suids.

It may well be that if archaeozoologists are more sensitized to the possibility of domestic pig bones then more will be identified.

4. The geography of past and present African pig populations

Pigs are generally not kept by nomadic pastoralists since they cannot survive by grazing for more than part of the year. They depend on grown food and are thus usually kept by settled farmers. As a result, they did not spread across the Sahara from North Africa with other domestic ruminants (Blench 1993, 1995). Their diffusion over long distances is often through being transported in boats, as in Oceania. They are likely to have reached sub-Saharan Africa by being taken down the Nile and could then have spread to west-central Africa overland along a corridor from Darfur to Lake Chad.

4.1. Pigs in North Africa

Pigs were once very widespread from Egypt along the North African littoral and along the Nile, as is amply attested by iconographic and archaeological evidence. Gilman (1975) shows convincingly that the domestic pig was the major source of food for the neolithic populations of Tangier, Morocco (i.e. 4000–1000 bc). At Carthage, for example, *Sus scrofa* was present in the Punic era, but becomes very common during Roman times (Levine 1994). The pig was a significant domestic animal among the Berbers, but the spread of Islam from the seventh century onwards confined pig-keeping to increasingly marginalized communities (Mouliéras 1905). Epstein (1971ii:330) quotes evidence that some Berber groups kept pigs in the Maghreb into recent times. Moreover, in Egypt, the avowedly Christian Copts still keep some pigs although these are tending to disappear in the present political climate. There were substantial importations of Mediterranean swine races along the North African littoral from the early periods of European trade and these importations expanded in the colonial era, accelerating the disappearance of indigenous races.

4.2. Pigs and the Guanche

Prior to their invasion by Spanish mariners in the fifteenth century, the Canaries were inhabited by the Guanche people, whose closest ethnolinguistic affiliation was to the Berbers of North Africa. Under what circumstances they arrived there is unknown since at European contact they had no seagoing vessels. The four major islands of the Canaries developed quite distinct cultures, suggesting that they had been in isolation from one another for some time. Archaeological work in the Canaries has given earliest settlement dates of c. 2000 BP although some material culture finds suggest rather earlier links with the mainland (Gonzalez & Tejera Gaspar 1990).

The Guanche and their culture were eliminated or absorbed by the Spaniards and there are only the rather scattered records of their customs and economy that can be gleaned from early travellers' accounts. The Guanche were pig producers and the pig also played a role in their ritual life on some islands. Pig bones have been recorded on all islands except Lanzarote and Fuerteventura (Mercer 1980:117).

“Wild” pigs, almost certainly feral, are recorded as part of the fauna of most of the western islands (Mercer 1980:13). Pigs must therefore have been brought to the Canaries with the first Berber incursions, well before the spread of Islam along the North African littoral.

4.3. Pigs on the Nile

Pigs were widespread and an apparently popular domestic species in Ancient Egypt. The first records of pigs in Upper Egypt are at Toukh in the second half of the fourth millennium (Epstein 1971ii:340, Epstein & Bichard 1984). Strikingly, pigs seem to have been used for work in Ancient Egypt, both treading and threshing seed in the eighteenth Dynasty, a practice also confirmed by Herodotus (Zeuner 1963:262). Pigs seem to have spread down the Nile at least as far as Sennar, where they are still kept (Spaulding & Spaulding 1988). Such pigs can be dated at least to the medieval period although they are probably older. Ethnographic records suggest that domestic pigs are very common in the Omotic-speaking regions (“Prenilotes”) of the Ethiopian–Sudan borderland (Murdock 1959:173). The statement by Phillipson (1993:352) that pig “is not now kept in Ethiopia” is somewhat misleading, since it applies only to the highland areas. Fleming (1965) argued on linguistic grounds that pig-keeping was ancient among Omotic speakers in Ethiopia. Bechhaus-Gerst (Ch. 24 in this volume) extends his argument for the central Sudan.

4.4. Pigs in west-central Africa

Pigs are kept in a wide belt of the forest–savanna region of West Africa today although they are barely discussed in standard livestock texts. Some of the pigs in West Africa were introduced at an early period by the Portuguese, “unimproved Iberian swine”, as Epstein has it. Jollans (1959) is one of the first authors to draw attention to the “native” pigs of the Ashanti in Ghana. He notes that they are both numerous and popular with farmers as well as being hardy and able to survive on a varied diet. These characteristics are also found among pig populations in isolated areas of south-central Nigeria (Adebambo 1982, RIM 1992ii).

These populations may well be pre-Portuguese to judge by their degree of establishment. The linguistic evidence seems to distinguish sharply between those regions where pigs have Portuguese-derived names and those where they do not (see §6, and Appendix). Pig-keeping may therefore have spread across the savannas of Central Africa from the Ethiopian borderlands to central Nigeria in medieval times. An ethnographic link between these two regions is probably represented by the pigs of the Nuba people of Kordofan (Epstein 1971ii:332). Barth (1857–8) mentions that feral pigs were common in Chad in the nineteenth century, which would provide the appropriate geographical link. The black, hairy pigs found today in remote areas of the Nigerian Middle Belt may also be a relic of this practice. Connah (1981:185) recovered a fired clay figurine at Daima in northeast Nigeria that might be a pig, though no bones have been definitely identified.

Although there is little or no documentation relating to the introduction and spread of pigs in the early period of European contact it is fairly certain that the

observes that along the sea-coast of the Bight of Benin, most languages have borrowed their term for pig from Portuguese.

4.5. Pigs in Equatorial Africa

Pigs cannot thrive in dense tropical forest, but with small cleared areas they appear to adapt to conditions of intense moisture. The first European incursions into West Equatorial Africa encountered pig-keeping in a strip stretching from southern Cameroon, through the Congo and down into Angola. This is shown as the "Angola extension" on Figure 22.1. If the report of domestic pig bones in Natal (§3) is confirmed by other finds, then to explain their presence a convincing route must be established. The path by which they could have reached South Africa is at present unknown but it is likely to have been an extension of the equatorial pig-keeping zone. This is shown on Figure 22.1 as passing along the valley of the Zambezi, simply because this is a well established pig rearing area today.

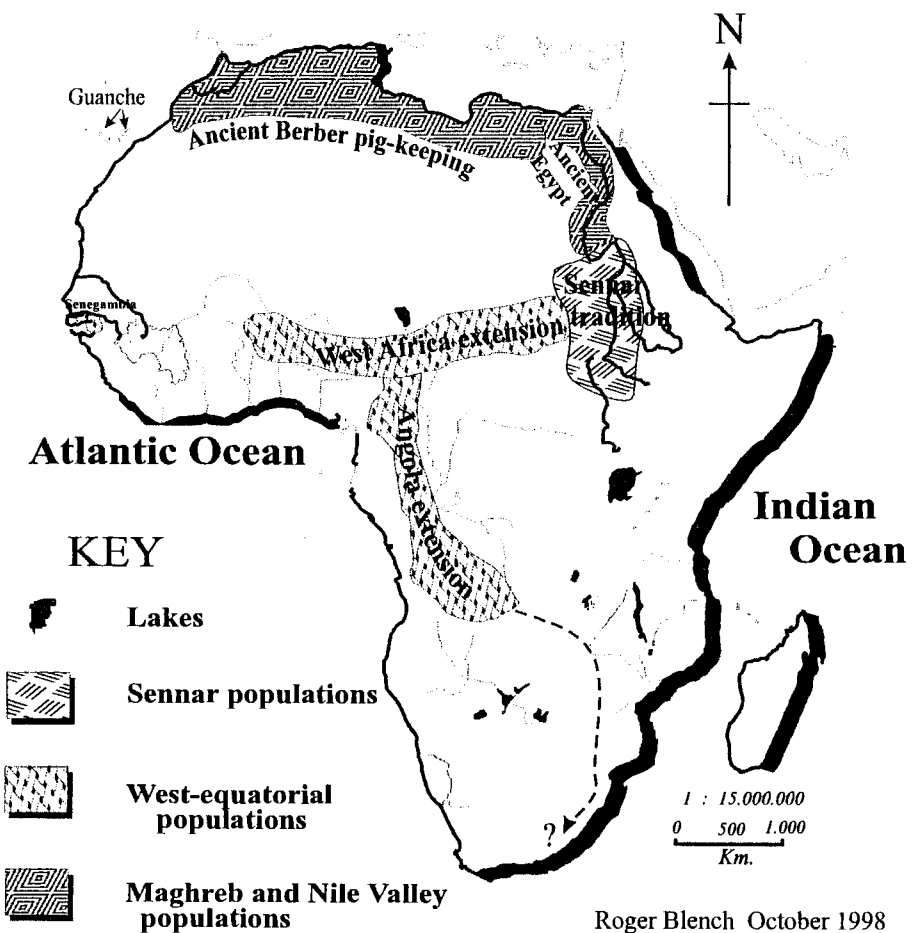
As elsewhere, the system of production is essentially semi-feral. Descriptions of pig-keeping in Equatorial Africa are given in Adamantidis (1951) and Merckx (1956). Pigs are largely left to find their own food and kept attached to the residential unit with occasional specially prepared food. They can be confined in the growing season if there is danger of damage to the crops. When they must be slaughtered they are hunted down. Pigs played an important role in the ritual of some societies. Among the Fang of Gabon and adjacent regions, Tessmann & Wasmuth (1913) records that the domestic pig was important in the Sso cult.

4.6. Pigs in the Senegambian region

Murdock (1959:266) pointed out that there is a nuclear area of apparently ancient pig production among the speakers of Atlantic languages near the Gambia river. Bernatziuk (1933) seems to have been the first to document the importance of the pig in this region although it is clearly possible this nucleus is of Portuguese origin. It is striking, however, that words for "pig" in the languages of this region do not resemble Portuguese terms, suggesting at least the possibility that this "island" of pig production has a distinct origin, perhaps connected with the Guanche in the Canaries.

4.7. Pigs in eastern and southern Africa

It is usually accepted that there were no pig populations in eastern and southern Africa prior to European contact despite a single report of domestic pig remains from a ninth century site in Natal (Voigt & von den Driesch 1984). The pig populations of eastern and southern Africa today are usually assumed to result from European introductions (Holness 1974). Mason & Maule (1960) imply that this was solely a nineteenth century phenomenon, but an earlier date is likely, as the Indian Ocean trade brought southeast Asian pigs as well as Mediterranean breeds. The Portuguese brought pigs to the East African coast via Goa, and these diffused inland along now-defunct trade-routes from ports such as Sofala on the Mozambique coast



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Figure 22.1 Historical distribution of pig-keeping in Africa.

(Ellert 1993). They presumably then spread slowly northwards, since mid-nineteenth century travellers recorded the presence of pigs far inland. This contact with Macau seems to have been responsible for the isolated populations of Chinese lard pigs found today in northeast Zimbabwe (Ellert 1993).

4.8. Summary

The precise historical distribution of pigs in Africa must remain guesswork until substantially more archaeological and genetic data are available. Figure 22.1 presents a synthesis of the broad areas where pigs seem to have been present prior to European contact. It should be compared with Figure 22.2 which shows the modern-day distribution of pigs in Africa.

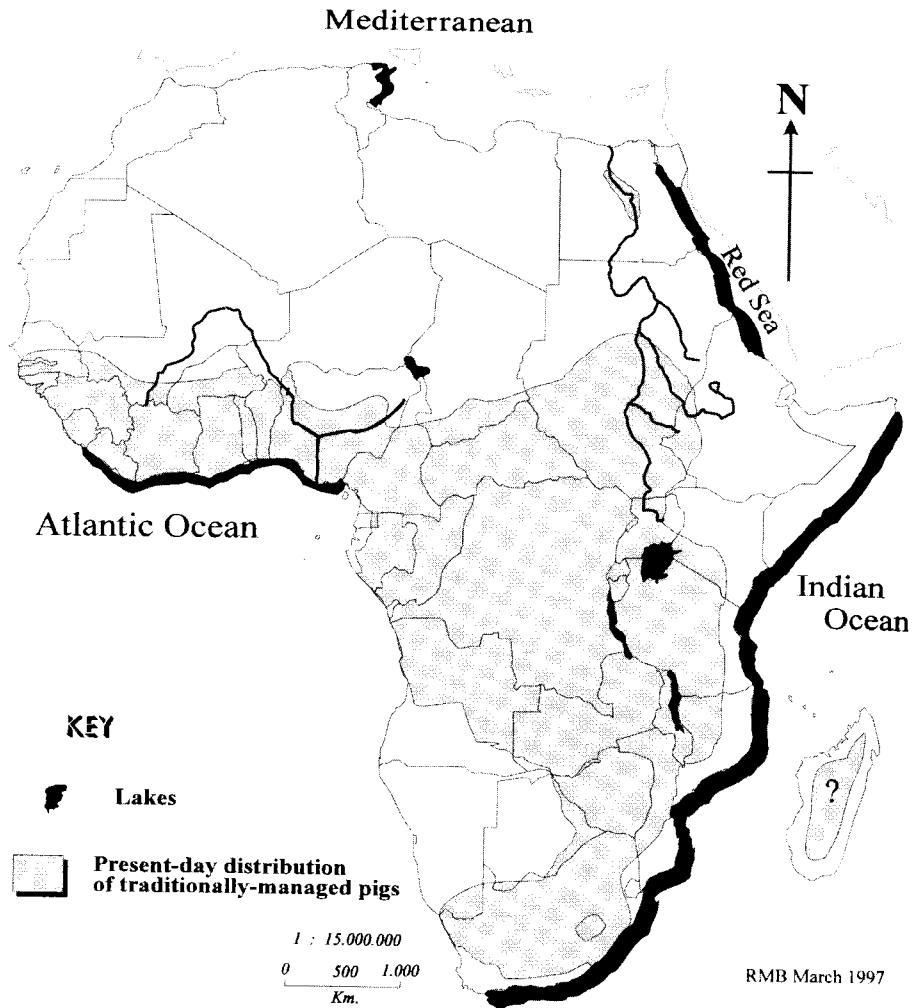


Figure 22.2 Modern-day pig-keeping in Africa.

5. Management and husbandry

Of all the major species of domestic livestock in Africa, the pig is the least well known. Compared with the extensive bibliography for cattle, sheep and goats, there are relatively few descriptions of smallholder pig production systems. Pigs are exceptional in the broad context of African livestock production, since significant numbers are kept today in semi-intensive production systems, usually near to towns. None the less, the majority of pigs are still kept in villages under traditional management.

Pig production systems can be divided into two main categories; herding/scavenging systems where the pig finds most of its own food, and intensive systems where the majority of the food consists of household scraps or specially grown

food. True herding systems were common in Europe until recently. In England, pigs were moved into acorn woods for some months and in Spain, cork forests, *dehesas*, are still used to feed pigs for part of the year. Similar systems are frequently mentioned in the Bible and other Near eastern texts, and to judge by references in Egyptian materials were common both in the Nile Valley and North Africa.

Swineherding seems not to have spread to sub-Saharan Africa. Pigs are either more intensively managed or else allowed to scavenge freely with no management at all. In areas where there are no farm crops to damage, such as in the Niger Delta mangroves, pigs are allowed to forage freely and are shot by hunters when they are needed for a sacrifice (RIM 1992ii). The absence of swineherding may be related to relatively low population densities in Africa. Where population densities are high, pigs must be either penned or watched if they are not to damage crops or property. Economies of scale then suggest that a large number of pigs are herded together to economize on labour.

5.1. Smallholder production

The most common system of pig production is smallholders who keep pigs on a "backyard" basis. Pigs differ from ruminant livestock in two important ways: they eat the same sort of food as human beings, and they are extremely destructive in their search for food, uprooting tuber crops and tearing down fences. The consequences are that they must be fed specially prepared food for some part of the year and they are often confined even when goats, for example, are free range. Pigs can only be allowed to scavenge for food when there are no crops in the ground or the fields are protected by strong fences.

Pigs are usually housed, rather than tethered like goats and sheep, as they are more selective feeders. Pigs have not traditionally been favoured by livestock schemes because they are deemed to compete with humans for food. This may be true where pigs are fed cassava grown purposely for them, but the great majority of pigs depend on residues from beer-brewing or tree-crop processing that would otherwise be wasted. Table 22.1 summarizes the principal systems of pig production in Africa:

Table 22.1 Systems of pig production.

	Characteristics			
	Housing	Ownership	Feeding	Breeding
Scavenging	None	Often communal	None	Uncontrolled
Herded	None	Individual	Seasonal diet supplements	Uncontrolled
Semi-intensive	Semi-permanent construction from local materials	Individual smallholders	Household waste and sometimes specially grown cassava	Uncontrolled or use of local stud boars
Intensive (Modern)	Modern pens made of concrete with zinc roofing	Urban-based entrepreneurs and businessmen	Agro-industrial by-products	Only selected boars used for stud

One of the most compelling pieces of evidence for the early spread of the domestic pig from the Nile to other regions of Africa both east and west is provided by linguistics. Despite the hypothesis of an Iberian introduction, borrowed vernacular terms for pig have a very restricted distribution. This is in contrast to terms for crops such as cassava or citrus, whose Portuguese provenance is clear (Williamson 1970).

Spaulding & Spaulding (1988) and Bechhaus-Gerst (Ch. 24 in this volume) have made preliminary compilations of the evidence. However, it is clear that the pig terms spread considerably further into West Africa than they record. The Appendix (#-kutu. pig) presents an expanded version of vernacular names for pig with West African data included. There is a chain of terms stretching from eastern Burkina Faso to the Sudan–Ethiopian borderlands that appears to be unrelated to European introductions. Manessy (1972), in an investigation of names for domestic animals in Gur languages, maps a distinct frontier between terms derived from Portuguese *porco* and terms of no known origin. He also observes that although today’s term in Hausa, *aleedi*, is borrowed from Yoruba, the nineteenth century term was *gursunu*, resembling those found across the Sahelian belt.

7. Conclusion

This chapter proposes some very radical revisions to the conventional picture of African pig-keeping. It suggests that the domestic pig spread to sub-Saharan Africa relatively early; certainly following the Nile Corridor, and thence as far as South Africa. The evidence for this is cultural and linguistic rather than archaeological; however, the temptation to ascribe suid bones to wild pig species may be partly responsible for this lacuna.

The linguistic evidence is compelling; it suggests strongly that the small black pigs of the interior of Africa were indeed part of an ancient pig-keeping culture that spread from the Nile across Central Africa, southwards with the Bantu expansion and westwards into Ghana and Burkina Faso. The rise of Islam drove pig production into isolated regions throughout northern Africa and the Sudan. The semi-feral nature of the production system and the relative success of imported breeds has led to the virtual disappearance of “indigenous” breeds in many areas and the illusion that all village pigs are descendants of Portuguese imports. The pig, the “democratic philosopher of the Medieval Sudan” (Spaulding & Spaulding 1988) can now be highlighted as a significant and ancient element in African subsistence strategies.

#-kutu. pig

Phylum	Family	Branch	Language	Gloss
NS	Koman	Anej	kuturu	
NS	ES	Nyimang	kudur	
		Old Nobiin	kutun	
		Dair	kid’ar	
		Gule	kuturu	
		Lumun	kutura	
		Temein	kudur	
		Uduk	ḵuthar	
NS	Maba	Aiki	girwā	wart-hog (?)
NS	Saharan	Kanuri	godú	warthog
NS	Kadu	Kamdang	b-oduruk pl. k-aḍuruk	
		Kadugli	kuḍuru	
NC	Kordofanian	Orig	kādirū	
	Kordofanian	Talodi	b/k-uduru	
	Kordofanian	Otoro	kudur	
NC	Benue–Congo	Nupe	kutsū	
NC	Kwa	Fon	agurusa	
NC	Gur	Dagbane	kurutfu	
NC	Bantu	#CB	#-gùdú	wild pig
AA	Omotiic	Kefa	gudinoo	
AA	Semitic	Sudan Arabic	kadruuk	
AA	Chadic	Hausa	gursunu	

NS=Nilo–Saharan NC=Niger–Congo AA=Afroasiatic

This root appears in Nilo–Saharan, Niger–Congo and Afroasiatic language phyla and is sometimes applied both to the warthog and the bush-pig (*Potamochoerus porcus*). Manessy (1972:314) points out that the chain of lexemes connecting to the Gur languages can be traced through dialect and obsolete terms cited in Koelle. Cited by Gregersen (1972:86) who used this as evidence for a proposed “Kongo–Saharan” grouping (wrongly, given that it is clearly a widespread cultural loan). Gregersen (op cit.) also mentions Greenberg’s suggestion that the Saharan form was loaned into *PB. Schadeberg & Elias (1979:84) mention that this root has been loaned into Sudanese Arabic to give *kadruuk*.

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