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## PIGS: THE DEMOCRATIC PHILOSOPHERS OF THE MEDIEVAL SUDAN

By Jay Spaulding and J. L. Spaulding\*

"A poor, mistreated, democratic beast . . . . The Pig is a philosopher who knows no prejudice."

— Robert Southey (1839: 173-4)

The pig is not a popular animal in the Sudan today, and the idea of eating one is a notion equally repugnant to most people of the north and the south. The historical record seems to indicate, however, that this has not always been the case in times past; indeed, swine are still kept by a limited number of small communities who live across a belt extending from the Nuba Mountains eastward to the Ethiopian border. The demise of a once-significant domesticated animal is a theme worthy of careful historical analysis, for food – the production, distribution, storage and preparation of food – occupies a very important position in any cultural system, and a major change in the definition of what is, or is not, food, constitutes a benchmark in the periodization of social history. This study explores one such cultural watershed, in addressing the questions of when and why the mainstream of the northern Sudanese cultural community rejected the pig.<sup>1</sup>

### The Wild Sudanese Pig and Early Sudanese Food-Producers

The African continent is the native evolutionary home to several members of the family *Suidae*, including the Giant African Forest Hog (*Hylochoerus*), the African River Hog (*Potamochoerus*), and the African Warthog (*Phacochoerus*) (Harris and White 1979; Towne and Wentworth 1950: 49). The first is rare and elusive, and probably not found in the Sudan, but the second and third are well known in parts of the south; the Azande, for example, distinguish carefully between the *mukuru* (*Potamochoerus*) and the *zigbwa* (*Phacochoerus*). They also recognize a third wild pig, the *zumburu* (Lagae and Vanden Plas 1922: II, 64; Tucker 1959: 250). It is the last species, the common pig, known in the Sudan by the scientific name *Sus scrofa sennaarensis*, whose range once included much of the central and northern Sudan (Epstein 1971: II, 327).<sup>2</sup> The domesticated pig does not seem to figure in the diets of early Sudanese food-producing societies as they appear in the reconstructed cultural inventories of linguists (Behrens 1984-5) or the archaeological record (Krzyzaniak

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<sup>1</sup>By the conventions of this study, the "anthropological present" refers to the approximate period AD 1850-1950, and the "medieval" period to the approximate interval AD 300-1300.

<sup>2</sup>Epstein (1971: II, 327) gives a clear photograph of a wild Kordofan pig, and he reproduces Robert Hartmann's drawing of a domesticated Gule pig (II, 333) along with a poorly-retouched rendition of Otto van Wettstein's photograph of a domesticated pig of Gulfan; for the original of the latter, see Meinhof (1916: Plate 8).

1982: 151-4).<sup>3</sup> However, it is clear that these communities did not systematically object to eating pork on cultural grounds, for the remains of wild *suidae*, in modest quantity, have been recovered at a number of northern and central Sudanese sites (Krzyzaniak 1977: 56; Sobocinski 1977: 4961; Marks *et al.* 1982a: 49; 1982b: 39; Geraads 1983: 22).

### The Sudanese Pig as a Linguistic Entity

Standard Arabic, both classical and modern, distinguishes between the wild boar (*halluf*) and the domesticated pig (*khinzir*); Sudanese Arabic, in contrast, designates both creatures by a single term peculiar to itself. While this word takes slightly different forms on the lips of diverse speakers, an acceptable general rendition would be *kadaro* or *kadarok*, hereafter given as *kadaro(k)*.<sup>4</sup> The languages of the Sudan other than Arabic know the pig by many names. Figure 1 offers a list which, though far from comprehensive, includes representatives from many of the major groups of languages spoken in or near the Sudan. Worthy of special attention is the fact that a number of languages, including some that belong to at best distantly-related linguistic traditions, seem to employ some version of the term *kadaro(k)* for the pig. Unless one is willing to adopt the hypothesis, highly improbable on cultural grounds, the Sudanese Arabs first invented a term for the pig wholly unique to themselves and then imposed it selectively upon some but not all of the other peoples of the Sudan, it would be necessary to interpret the word *kadaro(k)* in terms of the older, pre-Arabic languages of the Sudan. Awn al-Sharif Qasim, the preeminent lexicographer of Sudanese Arabic, alluded gracefully to this likelihood when he wrote:

It is, however, interesting to observe that although Arabic has triumphed to a large extent as far as the names of animals and birds are concerned, we still find Nubian terms such a *kadis* (cat) . . . . Future research may prove that the myriad of obscure names of places now baffling scholars such as . . . Kadaru . . . go back to this epoch (Awn al-Sharif 1965: 42).

While welcoming the further scrutiny by linguists of the proper place of *kadaro(k)* among the pre-Arabic languages of the Sudan, the present study confines itself to the adoption of the limited premise that the term belonged to one of them, and that its spatial distribution

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<sup>3</sup>Ironically, the site without domesticated pigs excavated by Krzyzaniak now bears the name "Kadaru."

<sup>4</sup>The term *kadarok* (*kadruk*, *kidruk*, *kaderok*, etc.) is both singular and plural, and hence constitutes a slightly awkward anomaly within the orderly flow of Arabic speech. Understandably, therefore, one of the most common single dialectical variations on the term – though by no means universally adopted – has been the construction of a regular Arabic plural form, *kadrun*, "pigs." The apparent expendability of a terminal "k," visible in this plural formation, is also found elsewhere in Sudanese Arabic, usually if not always in the context of terms bearing culturally archaic connotations such as *jirti(k)* (certain items worn during a northern Sudanese wedding) or *manjil(ak)* (an official of the Funj kingdom of Sinnar). To focus explicitly upon the latter example, the presence or absence of the terminal *kaf* of *manjil(ak)* as it appears in a Sudanese Arabic text does not alter the meaning of the word in any identifiable way; like the vermiform appendix, it stands as testimony to a forgotten evolutionary past. One may propose that the same principle applies to *kadaro(k)*.

should therefore be understood in terms of the age before the rise to prominence of Arabic.<sup>5</sup>

### A Survey of Domesticated Pigs in the Sudan Before A.D. 1300

In 1868 Robert Hartmann advanced the hypothesis that *Sus scrofa sennaarensis* might be the wild ancestor of all domestic pigs (Hartmann 1868). Current theory, however, holds it to be unlikely that an animal would have been domesticated first at the extreme periphery of its subsequent range (Epstein 1971: II, 348-9). The presently-prevailing hypothesis holds that pig domestication was introduced into northeastern Africa via Egypt, where "the pig had a curious history . . . . From a position of extreme importance at the beginning of the Neolithic period, it gradually declined in significance . . ." (Murdock 1959: 105). This interpretation is consistent with the evidence of the northern Sudanese archaeological inventory accumulated to date, where the physical remains of pigs, epigraphic and literary references to pigs, and the use of pigs as a decorative or artistic motif are confined to the Kerma, C-Group, Meroitic, X-Group and Christian Nubian horizons (Hofmann 1967: 189, 198, 250, 434-435, 499, 509, 566, 569). The most famous domesticated pigs of the medieval Sudan were surely the 700 suine martyrs said to have fallen sacrifice to the wrath of Shams al-Dawla when he sacked Ibrim in 1173 (Evetts and Butler 1895: 267). Finally, the exploratory diplomatic mission of the Mamluk emissary Alam al-Din Sanjar (1279-1290) produced a dim but distinctly porcine resonance out of the vast southern lands beyond the purview of medieval Nubia as customarily seen by archaeologists; one of his assigned destinations was a place called "Kadaru" (Mustafa 1972: 197). While acknowledging the considerably greater antiquity of pig-keeping in the Sudan, this study will focus upon the chronologically generous and comparatively accessible medieval and post-medieval periods.

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<sup>5</sup>Pending professional clarification the present writers would be inclined to view the term as classical Nubian and the medieval period as the era in which the forefathers of modern Nobin-speakers were most likely to have included domesticated pigs as one component of their cultural influence on their linguistic neighbors. It would seem considerably less likely that any one of the other *kadaro(k)*-using communities would have been a position to have exerted a corresponding influence both upon Nobin and upon all the others, while the attested terms for the pig in other Nubian languages differ to the extent that (with a few localized exceptional cases within the Nuba Mountains) they may reasonably be excluded from consideration. While the reconstruction of ancestral forms at the proto-Nubian, Eastern Sudanic and Nilo-Saharan levels should certainly be undertaken, and the results of this investigation compared with the various branches of Kordofanian, the outcome would probably be knowledge about a much more remote past, which would certainly enrich but need not conflict with the interpretation proposed here.

Figure 1  
SOME SUDANESE TERMS FOR THE PIG

<u>Community:</u>	<u>Term:</u>	<u>Source:</u>
Bari	uri	Müller 1864: 79
Berta	korio	Cailliaud 1826: II, 422
Bongo	bo'dü	Santandrea 1970: 211
Bora Mabang	mik	Trenga 1947: 235
Dair	kid'an (domestic)	Meinhof 1918-19: 194
	udjang (wild)	Munzinger 1864: 545
Dilling	kidan	Kauczor 1920: 33
Dinka	diêr	Nebel n.d.: 230
Eliri	tuduru	Seligmann 1910-11: 176
Fur	mare (wild)	Beaton 1968: 39
Gaam	gáar	Ayre and Bender 1980: 214
Garko	kúdé	Meinhof 1918-19: 53
Gule	kuturu	Seligmann 1911-12: 300
Gulfan	ki'dja,n (domestic)	Meinhof 1918-19: 60
	u'djan (wild)	Meinhof 1918-19: 63
Kadugli	kuduru	Kutoado 1969: 32
Kamdang	b-oduruk pl. k-adaruk	Stevenson 1957: 134
Kanderma	utur	Seligmann 1910-11: 177
Katla	lrr (domestic)	Stevenson 1957: 191
	gárigári (wild)	Meinhof 1916-17: 233
"Kawerma"	kadaru	Seligmann 1911-12: 298
Keiga	'b-adaruk	Stevenson 1957: 134
Kenzi	hodchi	Spaulding 1975: No. 397
Koalib	k-izaa	Stevenson 1957: 128
Koldagi	kisan (domestic)	Munzinger 1864: 545
Kresh	bvongbo	Santandrea 1966: 102
Krongo	b'-oduru pl. k-oduru	Stevenson 1957: 151
proto-Kuliak	*borok	Ehret 1981: 92
Kurgul	kidang	Czermak 1919: 187
"Lendu"	jo	Tucker 1940: 352
Lumun	kutura	Seligmann 1910-11: 177
Masakan	n-elledu	Stevenson 1957: 138
Miri	gudurú	Meinhof 1916-17: 250
Moro	t-uduruk	Stevenson 1957: 142
Nobin	kaderok	Meinhof 1918-19: 194
Otoro	kudur	Seligmann 1910-11: 177
Shilluk	kudhon	Heasty 1937: 84
Tagem	t-unwii	Stevenson 1957: 184
Talodi	b-uduru pl. k-uduru	Seligmann 1910-11: 176
Tagali	yik	Meinhof 1916-17: 131
Temein	kudur	Stevenson 1957: 184
To-Badawi	yak	Reinisch 1895: 330
Twampa	kuthar	Beam and Cridland 1970: 91
Zande	zumburu	Tucker 1959: 250

### The Southern Extent of Medieval Nubia

Both the optimistic reading of medieval Arab geographers and the conservative interpretation of the past geographical distribution of the Nubian languages suggest that the familiar archaeologically-known medieval kingdoms with capitals on the Nile had extensive cultural, if not also political, hinterlands that embraced much of northern and central Korodofan (Bechhaus-Gerst 1984: 7-134). The distribution across space of the term *kadaro(k)* binds together through time one aspect of the culture of the medieval Nubians who once kept pigs and that of a considerable number of post-medieval Sudanese communities who have continued to do so. Many of these communities, however, lie outside the political or cultural boundaries of medieval Nubia as hitherto defined.

The present study would propose that scholarly conceptions of the political/cultural boundaries of medieval Nubia be extended southward to include a zone that embraces both the post-medieval communities who use the term *kadaro(k)* for the pig (though not all necessarily keep pigs themselves) and the roughly coterminous area that includes all or most post-medieval Sudanese pig-keeping communities (though not all of them use the term *kadaro(k)*). A register of observed post-medieval pig-keeping communities is given in Figure 2, while the map below offers a visual synthesis of the arguments outlined here.

A possible motive for the establishment of rather intimate relations between the medieval kingdoms of the northern Nile and the pig-keeping, *kadaro(k)*-using zone, might lie in the fact that this zone also contained the only known Sudanese gold deposits, in the south-central Nuba Mountains and in Belà Shangul. Some hint of the method by which these relations were established, and the direction from which the initiative originated, may perhaps be found in the distribution, within the *kadaro(k)*-using zone, of murta, the classical Nubian term for the horse (Bechhaus-Gerst 1984: 106-9).<sup>6</sup>

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<sup>6</sup>See Bechhaus-Gerst (1984: 106-9). In regard to her use of "Fertit" as an example (108), however, it should be suggested that it is important to distinguish between the primary borrowing of the term *murta* out of Nubian into diverse adjoining languages such as Fur, and a secondary diffusion out of Fur, at a later date, to the numerous peoples of the Keira sultanate's southern tributary and slave-catching grounds – peoples whom the Fur collectively dubbed "Fertit" (O'Fahey 1980).

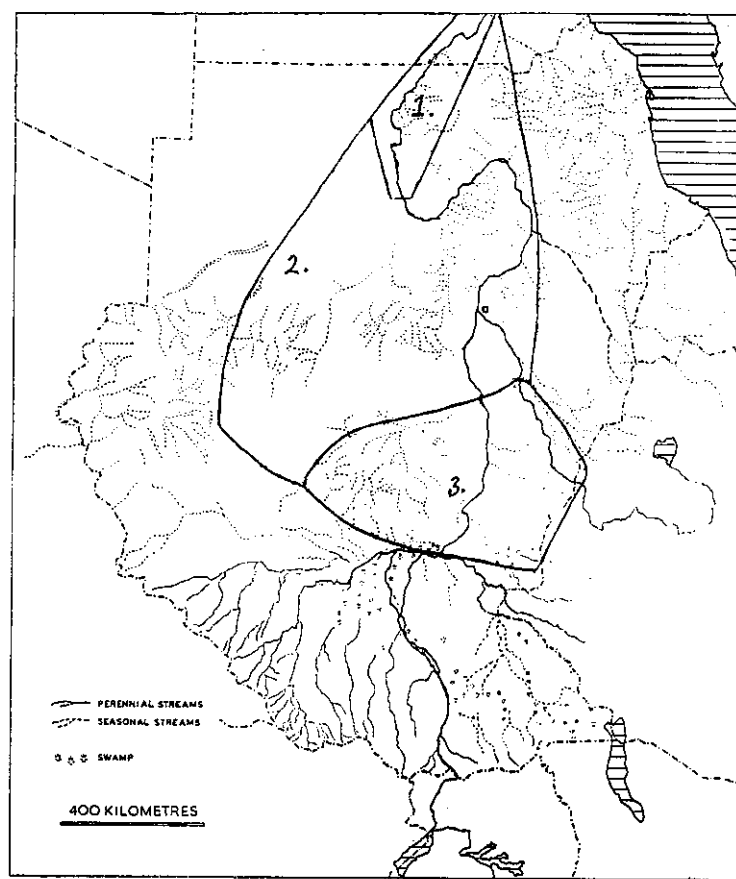
Figure 2  
OBSERVED DOMESTICATED PIGS

<u>Community:</u>	<u>Source:</u>
Sinnar (town)	Bruce 1805: VI, 388
Sinnar (suburb)	Bruce 1805: VI, 344-5
Fazughli	Peney 1885: 48-9
Gule	Marno 1874: 229
Berta	Schuver 1883: 80-1, 88
Jumjum	Evans-Pritchard 1932: 22, 35
Gumuz	Cheesman 1936: 371
Maban	Davies 1960: 29
Gaam	Jedrej 1974: 178
Twampa	James 1979: 27
Koma	Corfield 1938: 150
Burun	Stigand 1922: 223
Dilling	Sagar 1922: 152-5
Dair	Peney 1883: 514
Gulfan	Meinhof 1916: 88
Kurgul	Czermak 1919: 187
"Kawarma"	Seligmann 1932: 393
Talodi	Seligmann 1932: 398
Lafofa	Seligmann 1932: 401
Kurondi	Seligmann 1932: 402
Shwai	Seligmann 1932: 403
Eliri	Seligmann 1932: 406
Nyimang	Hawkesworth 1932: 165
Garko	Hawkesworth 1932: 180
Fanda	Hawkesworth 1932: 181
Tira	Stevenson 1963: 9
Kao	Faris 1965: 47
Niaro	Faris 1965: 45
Fungor	Faris 1965: 45
Moro	Roden 1972: 93
Kinderma	Bell 1938: 241
Atoro	Bell 1938: 244
Heiban	Bell 1938: 244
Koalib	Bell 1938: 244

(This register is intended to be geographically representative, but is not necessarily comprehensive.)



## THREE POSSIBLE GEOGRAPHICAL DEFINITIONS OF MEDIEVAL NUBIA



1. Literary sources reveal a Nubia confined to the Nile banks in the extreme north of the Sudan, plus Soba near the Nile confluence.

2. Comparative Nubian linguistics, including the study of place names, would extend this zone to include Kordofan, eastern Dar Fur, the northern Nuba Mountains, and the lower Blue Nile valley.

3. The present study would suggest the addition of a southern zone in which pigs, often known by the term *kadaro(k)*, remained a part of the agricultural complex into post-medieval times. Allowance must be made for possibly numerous communities within the zone who borrowed the term, but did not themselves keep pigs, and for some groups who kept pigs under other names.

### The Sudanese Domesticated Pig in Its Cultural Setting

Given the manifest complexity of the pig-keeping cultures of the Sudan, the conspicuously malign weight of historical experience upon them, and the fragmentary character of extant ethnography about them, only a few broad and admittedly imperfect generalizations may be advanced, and that only in a suggestive and illustrative spirit. Pigs were allowed to forage freely in the vicinity of the owners' homes by day (Cheesman 1936: 371), but were enclosed in special structures for protection at night (Schuver 1883: 80-1, 88; Evans-Pritchard 1927: 72; G.W.T. 1931: 196; Hawkesworth 1932: 165; Wedderburn-Maxwell 1936: 181). In the Sudan as elsewhere, pigs were raised primarily as a source of meat,<sup>7</sup> but they also supplied fat to be used as a dressing for the hair and skin (Chessman 1936: 371), and leather of a variety preferred for some purposes (Seligmann 1932: 409). The consumption of meat was often also an occasion for the practice of religious ritual, and pig sacrifices to the diving Powers-That-Be were recorded among a number of communities (Seligmann 1932: 398, 401, 402, 403; Robertson 1934: 118; Jedrej 1974: 178). Pig sacrifices also accompanied events of social importance such as the completion of a new house, weddings and funerals (Evans-Pritchard 1927: 82; MacDiarmid 1927: 227; Seligmann 1932: 406, 409; Hawkesworth 1932: 180, 181; Evans-Pritchard 1938: 309-10). Pigs figured in the systems of payments that accompanied conduct of social relations, including political payments, judicial settlements, rewards for participation in communal labor-parties, and the payment of bridewealth (Sagar 1922: 152; Evans-Pritchard 1927: 82; Seligmann 1932: 402; Evans-Pritchard 1932: 20, 35; Wedderburn-Maxwell 1936: 180, 182; Stevenson 1940: 91; Nadel 1942: 55). In short, pigs played an integral and meaningful part in the cultures of the communities who kept them, and were sometimes even honored with a role in the prevailing mythology of creation (Hawkesworth 1932: 165; Seligmann 1932: 393).

There are indications, however, that within the total complex of agricultural activities practiced by any given community, the role of the pig was secondary. All known post-medieval pig-keeping communities also planted crops and kept other types of livestock. To the extent that modern observations may be taken as indicative of longstanding practices, the subordinate role of swine may be documented in numerical terms.

<u>Unit:</u>	<u>Site:</u>	<u>Cattle:</u>	<u>Goats:</u>	<u>Pigs:</u>	<u>Source:</u>
Total Community	Kau	250	250	50	Faris 1968:47
Wealthy Farmer	Moro	30	50	10	Roden 1972: 93
Average Farmer	Moro	5-6	10	2-3	Roden 1972: 93

In some cases, confirmation of the secondary position of the pig may be inferred indirectly from its cultural designation as an animal appertaining to women. At Fanda,

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<sup>7</sup>The sedentary mixed farmers of the Sudan, including those who raised pigs, often lived in or near a state of meat-hunger. Illustrative is the comment of the missionary boarding-school master in the Nuba Mountains who explained: "Day after day boys kept coming to me to say that they wanted to go to their homes for a day to eat meat. Now meat is such a treat to them that we usually give them permission to go home when their parents are killing a goat or when one of their flock dies of old age (or disease)" (MacDiarmid 1924: 125).

for example, when a bride-price in cattle was delivered to a prospective father-in-law, custom also required the sacrifice of a pig for the mother of the bride (Hawkesworth 1932: 181). At Kau, in a community that practiced dual descent, cattle were defined as male property and inherited through the male line, while pigs were defined as female property and were inherited through the female line (Faris 1968: 47). One may conclude that pigs did not enjoy priority among domestic animals in the perceived hierarchy of value, and were therefore likely candidates for potential sacrifice under conditions of stress.

Some reasons for the poor competitive position of the pig in relation to other livestock may be inferred from the nature of the animal itself. Unless provided with shade, pigs are vulnerable to sunburn (the older breeds considerably less so than the modern), and since the pig lacks the ability to cool itself through perspiration, it must control its body temperature by seeking moisture in which to wallow when the air temperature rises about 30° C. (86° F). Given the climate of the northern Sudan, much of medieval Nubia must have been less than ideal terrain for the raising of pigs, even assuming a substantially more generous forest cover than exists today (Mellen, 1952; Mount, 1968; Devendra and Fuller, 1979). Further, by virtue of its digestive anatomy, the pig eats the same types of food that people do. An Egyptian text of the Old Kingdom documented this primal rivalry graphically, in describing a year of famine in which "food is robbed from the mouth of the swine, without it being said, as before, 'this is better for thee than for me,' for men are so hungry" (Harris 1985: 84). Finally, the pig had to compete for his keepers' affections against rival domesticates that supplied milk, fiber, traction and transport as well as meat, while subsisting on a diet that would support neither man nor pig. The ultimate outcome was predictable; the same pressures of ecology and economy that had brought an end to the age of extensive pig-keeping in the Middle East and Egypt in earlier times (Harris 1985: 67-87), now doomed the domestic pig in much of the Sudan as the medieval period drew to a close.

Pig-keeping in pre-modern times flourished best in forested areas, where the ability of the pig to sustain himself by foraging in the woods produced pork for his keeper without competing for the laboriously-produced harvests of his fields. Pig-keeping in the post-medieval Sudan survived in ecological settings that approximated these conditions, for example, among the Koma: "In many of the villages pigs are kept and are allowed to wander about in the forest feeding on roots and the fruits of trees: (Corfield 1938: 151). Perhaps some substantial parts of medieval Nubia were forested; one may recall that the same medieval Nubians who kept pigs were also famed as archers (Yusuf 1967: 18-9; Adams 1977: 457), a skill which survived in the Sudan only among those communities in which hunting remained an important activity – and that in turn presupposed an environment in which game could be found. Similarly, the charcoal-fired ironworks for which both ancient Meroe and medieval Kordofan were once famous now lie silent in a barren and virtually treeless terrain.<sup>8</sup> Neither forests, game, archers, ironworkers, nor pigs, may be found in the Nubian heartland today.

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<sup>8</sup>For an introduction to the Bongo, a Sudanese community that has preserved both bowmanship and ironworking expertise into recent times, see Kroenenberg and Kronenberg (1981). The Bongo live in a tsetse-infested area and keep very few animals.

### **Conclusion: The Post-Medieval Sudan in Historical Perspective**

Societies with a specialized pastoral emphasis emerged in the Sudan at an early date; the respective distributions of Eastern Sudanic in general (Ehret 1982: 8) and Nubian in particular (Thelwall 1982: 51-2) have been interpreted on this basis. Viewed against a time-honored legacy of pastoral preference, the medieval Sudanese domesticated pig constitutes a striking anomaly, for the keeping of swine is a comparatively visible and reasonably definitive criterion by which an economy may be designated non-pastoral. In some cases, exemplified in modern times by the Koma and extensible by analogy to putatively forested areas of medieval days, the keeping of pigs may perhaps be seen as a local adaptation to a microenvironment ill-suited to large livestock. This logic, however, would certainly not explain the presence of domesticated pigs in much of the northern heartland of medieval Nubia.

The domesticated pig of the medieval Sudan should be understood in terms of broad socioeconomic forces that guided the choices of communities in adopting new strategies for obtaining a livelihood. For example, the tendency for pastoral emphasis to emerge out of a setting of mixed sedentary agricultural practice conformed to the principle that in the absence of significant trade or other intervening external factors, the wealth of such a community tended to accumulate in the form of livestock; at the point of diminishing returns in sedentary pursuits, pastoral emphasis prevailed (Newcomer 1972). Less commonly noted by anthropologists, however, has been the social process by which this tendency toward pastoral emphasis could be reversed, through the exaction of taxes in the form of livestock by the state (Spaulding 1985: 91-6). Seen from this perspective, it becomes clear why the concentration of archaeological and literary evidence testifying to the presence of domesticated pigs in the northern Nile-valley Sudan is concentrated within the era that embraced in succession the Sudanese kingdoms of Kush, Meroe and Nubia; this was the first age in which the exercise of state power limited the exercise of the pastoral option over significant parts of the northern Sudan, and imposed conditions that favored mixed sedentary agriculture – a regime into which domesticated pigs could be accommodated in a supporting role.

The centuries that followed the decline of medieval Nubia have long been recognized as an age of turmoil and transition in the northern and central Sudan. However, the attribution of this disruption to Arab invaders of the fourteenth century (Yusuf 1967) probably exaggerates the strength and numbers of these newcomers, and fails totally to account for the previous collapse of the southern Nubian kingdom of Alodia (Shinnie 1961: 76). Similarly, the activities of Red Sea merchants in the Sudan (O'Fahey and Spaulding 1974) can hardly explain the extent and nature of the upheavals of this period. The present study would propose that while both Arab immigrants and merchant entrepreneurs may indeed have contributed to change, a more fundamental event of this period was an internal process within Nubia that entailed the reorganization of basic productive activities. The demise of the Nubian pig at the close of the medieval era is important not in itself, but because it testifies to the concomitant abandonment of a whole integrated system of comparatively sedentary agriculture – one that included the keeping of pigs – in favor of a more mobile system for obtaining a livelihood that reverted to emphasis upon large livestock – camels (with sheep and goats) in the north, and cattle (with sheep and goats) in the south.

From this visible transition in agricultural usages, one may also infer an unseen transformation of social structures and cultural values. An important contribution of the

new arrivals from the Mediterranean world, both Arab immigrants and merchants, was the definition of Arabic as the idiom in which the new life-style of Nubia was to be conducted; the only major northern Sudanese groups who did not join it were those Nubians who lived along the Nile so far north into the desert that even camel-herding was locally impossible, and the eastern communities of To-Badawi speakers who had no need to adjust to the new post-medieval system of pastoral emphasis because they had never ceased to practice it. Elsewhere, around the periphery of the newly-pastoral Nubian heartland, a handful of small, geographically-rooted communities of Nubian speech survived. Henceforth, under the new agricultural order, Sudanese Arabs would vie with Sudanese Nilotes in their antipathy toward pork, and both would pour scorn upon the shrinking residual bastions of mixed sedentary agriculture in the Nuba Mountains and the Ethiopian borderlands. There, shielded for an age by the revival of state institutions under the Funj kingdom of Sinnar (c. 1500-1821), the basic principles of the medieval regime were preserved, by communities who rightly perceived themselves as "falling between the stools of Afro-Arab northern Sudan and Nilotic southern Sudan" (Ayre and Bender 1980: 5).

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