

The Evolution of the Cultigen Repertoire of the Nupe of West-Central Nigeria

Roger Blench

Introduction

Work on the distribution and diversity of individual cultigens in Africa has frequently taken precedence over explorations of the crop repertoires of specific ethnic groups. This is partly because research tends to concentrate on cultigens of perceived economic importance, and the conventional wisdom as to their identity tends to reflect the needs of the developed world. Moreover, intermediate literature available to non-specialists on the identification of unfamiliar cultigens is so inadequate that anthropologists and geographers, who are in the best position to do this sort of work, must usually be content to enumerate the major staples in a given society and take the rest for granted.

Those who have worked on this topic specifically, including Netting (1968) for the Kofyar of central Nigeria, or Cuypers (1970) for the Shi of eastern Zaire, implicitly assume a techno-environmental determinism, namely, that cultigen repertoires reflect the ecozone available to farmers and the agricultural techniques they have to exploit it. This approach is largely an artefact of the synchronic accounts of ethnic groups that have to date dominated Africanist ethnography. However, the lacunae in the descriptive literature in this area are striking. In a much-quoted lament, Murdock (1959, p. 376) observed that in fourteen ethnographic sources on the Shona of Zimbabwe there were nine independent lists of kinship terms and not a single mention of the crops grown.

An honourable exception is David (1976), whose article on the crops and peoples in northern Cameroun attempts a type of stratification of crop innovation on a larger canvas. Using archaeological and ethnographic evidence he attempts to 'layer' the crops grown in the area and make some general statements about their distribution among some of the 25 ethnic groups surveyed. However, in view of the broader canvas, little is said about the process of acceptance or rejection within individual societies.

Although Lagemann's study (1977) in eastern Nigeria has approached the problem of the response of farmers using traditional methods to recent agricultural innovation, the lack of an historical perspective means that he is unable to compare present reactions to the behaviour of Igbo farmers in the past. Once such a perspective is introduced, however, it becomes clear that not only economic factors but also the internal structural logic of a society may decide the crops that are adopted or relinquished, and the range available within a society at any given moment.

A previous paper (Blench, 1986) has explored the methods available for reconstructing the process of adoption of crops by an entire linguistic group, what we call Nupoid. By examining the vernacular names of useful plants among a group of sixteen languages spoken in central Nigeria, it is possible to 'layer' both domesticated and exploited wild plants according to the degree to which they reconstruct within the

language grouping. The disadvantage of this method is that, in the absence of both historical sources and archaeological data, many of the hypotheses advanced are difficult to corroborate.

This paper¹ attempts to examine this same process at a level of much finer detail, by looking at the development of domesticated plants among a single ethnic group, the Nupe of west-central Nigeria. Apart from the presentation of new ethnographic data, the purpose of this study is an exercise in method; by combining linguistics, historical sources and present-day participant observation it should be possible to illustrate the dynamism of traditional African farming systems and the factors relevant to changes in cropping patterns.

After summarising the ethnography of the Nupe, a comparative table of crops at different historical periods is given to illustrate the evolution of the repertoire. This is linked to an explanatory framework that examines the farming systems, political structures and marketing networks that affect the choices made by farmers.

Nature of the sources

By the standards of African ethnography, the Nupe have been well documented since the first direct European contact with them in the 1820s. Although referred to in Yoruba traditions well before any direct observational record, the first written account of this area appears to be that of Clapperton (1829) recorded both in his own diary and by Richard Lander (1830). Further information comes from subsequent visits by the Lander brothers (1832) and other trading expeditions up the Niger in the years that followed Laird and Oldfield, (1837). As controllers of the potentially lucrative river trade, the Nupe were seen by mercantilists in Victorian England as the key to the unknown wealth of the savanna states. Reports in the Public Record Office (e.g. Simpson, 1871) throughout the rest of the century include valuable material on vegetable products available in Nupe markets, both traded and grown locally. Later work by missionaries (Banfield, 1914), administrators (Dupigny, 1920), ethnologists (Temple, 1922; Meek, 1925), anthropologists (Nadel, n.d., 1942) and historians (Mason, 1970, 1973; Kohnert, 1982) gives a continuing picture of Nupe society. Material on the present situation derives from intensive fieldwork during the period 1979–82 with subsequent shorter visits.

The development of cultivated plants among the Nupe

Ethnographic background

The Nupe number perhaps 800,000 in west-central Nigeria, living around both banks of the Niger and Kaduna rivers. This region, usually referred to as the 'Middle Belt', has

This paper is based primarily on fieldwork in central Nigeria, from 1979 to 1982, supported by the Social Science Research Council. Work in the Nupe area was conducted from the village of Piciko, south-west of Bida, and I am grateful to the village community for their hospitality and forbearance. More recent work in Nigeria, between 1983 and 1987, has been conducted for the National Livestock Projects Department and the International Livestock Centre for Africa, both of Kaduna, and I am grateful to these bodies for the opportunity to amplify my initial findings.

A version of this paper was presented in 1983 to the Natural History Society in Cambridge and another to the graduate seminar of the Department of Social Anthropology. It was given in a different form to the British Institute in Eastern Africa colloquium in Oxford in 1988. I am grateful to Colin Leakey, Ken Osaji, Rick Shain and Parker Shipton for useful comments and to Peter Loizos for involving me in the project to edit Nadel's fieldnotes.

strongly marked wet and dry seasons. The Nupe are virtually contained within the boundaries of modern Niger State with a few outlying villages in Kwara State. Speakers of proto-Nupoid probably came from the Niger–Benue confluence, as the Nupe language shows connections with Epira and the Idomoid languages² (Blench, 1989). They may have been hunters at this period, as some words for cereal cultigens in Nupe appear to be borrowed from their northern neighbours (Blench, 1986).

They occupied the floodplains in the valley of the Niger and the Kaduna rivers and formed a number of riverine states along its banks at an unknown period in the past, at least by the fourteenth century and probably much earlier. The economic basis of these states seems to have been the cultivation of African rice (*Oryza glaberrima*), fishing and river trading. The Lander brothers (1832, II, pp. 136, 166) refer to the enormous scale of rice cultivation and its complementary fish production in 1830.

In the savanna hinterland, numerous villages were established with economies based on cereal cultivation and hunting.³ These villages also functioned as a conduit for the products of the riverine states. The Landers (II, p. 157) refer to an absence of animal protein in the diet of riverine peoples. Many settlements were probably linked economically to the 'fishing-states', without being their political dependents. The role of Nupe in long-distance trade at this period is not known, but there is evidence to connect Nupe with the cola route that operated via Borgu to Asante. Moreover, the complex canoes developed by the Kyadya for long-distance river trade and noted with admiration by the first European travellers were presumably the end-point of an extended period of evolution.

Although Yoruba oral traditions record invasions by the 'Takpa' (Nupe) as early as the sixteenth century, Nupe oral traditions begin only two centuries later. In the eighteenth century there was an expansion of contacts with the northern emirates, and there is a record of the conversion to Islam of one of the Nupe rulers, the Etsu Jibiri (1746–1759) (Nadel, 1942, p. 406). In the early nineteenth century a succession of warrior-scholars entered Nupe, the most notable being Mallam Dendo, who was responsible for the establishment of a centralised Islamic polity. A precursor of the Jihad initiated from Sokoto, when Nupe was conquered by Fulbe cavalry after 1810, he was able to exploit the disarray of the Nupe to become both a military and spiritual leader.

The most obvious effect of the conquest was a reorientation of Nupe, turning away from the river to become a commercial polity of the savanna. The long-distance trade with the north expanded, and donkeys were brought in to transport goods. Guns and horses appeared, and these were used in extensive slave-raiding, both into the Nupe hinterland and among other peoples on the south bank of the Niger. Economic links between the towns and the countryside collapsed as villages moved to the heights of the mesas that break up the savanna north of the river.

The Royal Niger Company had taken control of most of the Niger by the 1890s and the conquest of Nupe was complete by 1901. The immediate effect of the imposition of colonial power was that villages moved back to the river-plain and trading links were reopened with the towns. However, the era of British rule did nothing to weld these two structurally opposed elements into a single political unit. The villages remained independent and acephalous, rejecting Islam in favour of traditional religion or Christianity, suspicious of the hierarchical authority system that prevailed in the towns.

The economic development of Nigeria in this century, and particularly since the

2. Although their oral traditions connect them with the linguistically unrelated Igala, who live below the confluence.

3. Though hippopotamus-hunting was common in riverine areas (Lander and Lander, 1832, II, p. 145).

growth of oil income in the late 1960s, has meant that the towns are increasingly dependent on the countryside. Dry-season roads have been constructed to even the remotest of Nupe villages, while the growth of the schooling system has increased urban-rural linkages. The trade to the towns of cereals, tubers, vegetables and oils has expanded, with a corresponding transfer of wealth to the villages, evidenced by the ubiquitous motor-bike.

Nupe farming systems

Rainfall in the region where the Nupe farm varies between 1,300 and 1,000 mm per year, which is adequate to grow most of the staples commonly cultivated in Nigeria. Soils are generally ferralsols, and excluding the high potential soils along the rivers are considered poor in productivity (Agboola, 1979). As in most of the Middle Belt, the soils are badly eroded, and only by dint of an ingenious range of agricultural techniques can this environment be effectively exploited (Kaufman and Blench, forthcoming). The high labour requirements of ridging rainfed cereals and raising bunds in the rice-growing areas (Angulu, 1965) have played an important role in determining production systems.

The Nupe farming system has had two distinct elements since its inception: the ferricine floodplain systems and the rainfed cereals on the savannas. Vegetable foods were supplemented by protein derived from fish and hunted wild animals. Nupe raise goats and chickens, and some sheep, although until recently the prevalence of trypanosomiasis restricted ruminant numbers.⁴ Generally speaking, livestock have not played an important role in Nupe domestic economy. The significant difference between the two systems was the emphasis placed on particular staples; paddy rice effectively substitutes for yams and sorghum.

The evolution of the crop repertoire

To build a picture of the 'original' crop repertoire of the Nupe, several sorts of evidence must be brought together—botanical, historical and linguistic. For example, now that the original region of domestication of all the major cultigens can be safely identified, crops brought from South and Central America by the Portuguese can be eliminated.⁵ Similarly, there is now a substantial body of evidence concerning plants such as the onion that were spread by the Islamic world (Lewicki, 1974). Such plants (and other cultural items) can usually be easily identified because their name is a loan-word in Nupe, usually from Hausa.

Nineteenth-century sources provide the first concrete evidence for both ancient and newly adopted food-plants. The major crops are generally described with sufficient clarity to ensure that they were correctly identified, but confusion occasionally creeps into the texts when minor crops are being discussed. Clapperton (1829, p. 118) noted bananas and plantains among the Busa and Lander (1830, p. 172) 'yams, millet and plantains' in the Nupe area near the south end of what is now Lake Kainji. Later the brothers (1832, II, p. 124) mentioned the cultivation of plantains at Raba, then the capital of Nupe. These are interesting testimonies to the cultivation of plantains, as these are very rare in Nupe today and are generally only grown in small gardens for sale to expatriate Yoruba and other southerners.

⁴ Footrot is still a factor limiting sheep husbandry.

⁵ There are one or two exceptions to this; some of the 'pantropical' plants such as the hog-plum and some *Amaranthus* spp. have an uncertain antiquity in West Africa.

Lander (1830, p. 178) was made a present of yams and rice by a Nupe princess, and later the brothers (II, p. 52) were given dishes of yams and goat-meat stewed in palm-oil. Clapperton (1829, p. 125) also mentions the presence of palm-oil plantations on a Niger tributary. Simpson (1871) mentions the importance of the oil from the shea-tree in Bida market. According to Simpson's enclosure 2, 120 tons of shea-butter were obtained from the market at Egan in 1870. The same source notes the sale in small quantities of sesame ('beniseed') in Bida market.

The same sources provide useful testimony to the establishment of both the crops introduced from further north and New World crops from the coast. Clapperton (1829, p. 139) mentions the sale of cakes of maize-flour in Nupe markets. The Landers (1832, II, p. 150) noted the presence of maize ('Indian corn') as fried cakes on the Niger in 1830. They also noted that coconuts and lemons were traded up the river as far as Egan ('Egga') from the coastal areas as far back as 1830 (II, pp. 150, 154). Lemons are so rare in Nupe even now that it seems likely they were referring to the lime, which is commonplace and grown throughout Nupe. Limes were certainly grown among the Busa, immediate westward neighbours of the Nupe in the 1820s (Clapperton, 1829, p. 117). Tobacco, as snuff, was well-established in Nupe by the 1820s (Lander, 1830, p. 159).

Other New World crops mentioned in the literature include sweet potatoes recorded by Laird and Oldfield (1837, II, p. 90). Clapperton (1829, p. 130) mentions chili pepper as an ingredient in a type of local beer.⁶ At one point, Clapperton (1829, p. 136) gives a rather confused account of the types of hot spice traded by Nupe at Kulfu. He mentions 'monsoura' (*masoro*), 'shitta' (*cita*) and 'kimba'. *Masoro* is *Piper guineense* which Clapperton correctly compares to 'East India pepper'. *Cita* is usually the Hausa term for chili pepper (*Capsicum* spp.), although Clapperton identifies it with malagueta (*Aframomum* sp.). Lander (1830, p. 182) also refers to the presence of 'malagueta pepper' (*Aframomum* sp.) in the market at Kulfu. Finally, *kimba* is the Hausa term for the tree *Xylopiya aethiopicica* whose dried pods are used for seasoning. Clapperton calls it a 'small thin pepper, growing on a bush near the sea-coast' which sounds more like malagueta pepper.

From this evidence, it is clear that the main body of both 'northern' and 'southern' crops had been absorbed by the Nupe before 1830. A limitation of the literature is that it focusses on the most prominent and easily identified crops. Interviews with older farmers in 1979-82 made it possible to complete the characterisation of the crop repertoire. Table 1 suggests that there were something like fifty plants regularly cultivated in the immediate precolonial era, although the literature does not mention more than twelve.

Table 1 compares the crops grown in the pre-Islamic (that is, around the middle of the eighteenth century) and pre-1900 (the immediate precolonial) era with those present in farmers' fields in the 1980s.

Broadly, the table shows that there was a substantial expansion in cultigen numbers following the impact of the trans-Saharan trade and the arrival of the Portuguese on the coast. Obviously, the pre-Islamic repertoire may be an underestimate—cultigens can totally disappear, leaving no traces in tradition or language. However, comparable surveys of nearby farming systems have yet to produce evidence for relict cultivation of plants forgotten in Nupe. It is possible that *iburu* (*Digitaria iburua*) and *tumuku* (*Solenostemon rotundifolius*) were once cultivated as they are nowadays found north-east of Nupe. However, since the population density must have been substantially lower and wild foods consequently more available, there was probably little incentive to develop a variegated plant-complex.

⁶ This beer, which he calls *booza* and for which a recipe is given, no longer appears to be made!

Table 1: Cultigens grown by Nupe farmers at various periods

Scientific name	Common name	before 1810	19th cent.	1980s	Nupe name
Tubers					
<i>Colocasia esculenta</i>	taro, old cocoyam	+	+	-	<i>konkoro Nupe</i>
<i>Dioscorea alata</i>	water-yam	-	+	+	<i>wura</i>
<i>Dioscorea bulbifera</i>	aerial yam	+	+	-	<i>kandu</i>
<i>Dioscorea cayenensis</i>	red yam	+	+	+	<i>eci dzuru</i>
<i>Dioscorea guineensis</i>	Guinea yam	+	+	+	<i>eci</i>
<i>Ipomoea batatas</i>	sweet potato	-	+	+	<i>duku</i>
<i>Manihot esculenta</i>	cassava, manioc	-	+	+	<i>rogo</i>
<i>Plectranthus esculentus</i>	rizga	+	+	-	<i>korodanyigi</i>
<i>Xanthosoma mafaffa</i>	new cocoyam	-	+	-	<i>konkoro</i>
		5	9	5	
Cereals					
<i>Digitaria exilis</i>	fonio	+	+	-	<i>suru</i>
<i>Eleusine coracana</i>	finger-millet	-	+	-	<i>tamba</i>
<i>Oryza glaberrima</i>	African rice	+	+	+	<i>cenkafa</i>
<i>Oryza sativa</i>	Asian rice	-	-	+	<i>cenkafa</i>
<i>Pennisetum typhoides</i>	bulrush millet	+	+	+	<i>mayi</i>
<i>Sorghum bicolor</i>	sorghum	+	+	+	<i>eyi</i>
<i>Zea mays</i>	maize	-	+	+	<i>kaba</i>
		4	6	5	
Oil-crops					
<i>Arachis hypogaea</i>	groundnut	-	+	+	<i>guzhiya</i>
<i>Sesamum indicum</i>	sesame	+	+	+	<i>eso</i>
		1	2	2	
Spices and stimulants					
<i>Cola nitida</i>	cola	+	+	+	<i>ebi</i>
<i>Curcuma domestica</i>	turmeric	-	+	+	<i>turi</i>
<i>Nicotiana</i> spp.	tobacco	-	+	-	<i>taba</i>
<i>Saccharum officinarum</i>	sugar-cane	-	+	+	<i>kpansanako</i>
		1	4	3	
Vegetables and pulses					
<i>Abelmoschus esculentus</i>	okra	+	+	+	<i>kpanmi</i>
<i>Allium ascalonicum</i>	shallot	-	+	+	<i>lubasa</i>
<i>Allium cepa</i>	onion	-	+	+	<i>lubasa</i>
<i>Amaranthus hybridus</i> ssp. <i>incurvatus</i>	African spinach	+	+	+	<i>alefa</i>
<i>Amaranthus spinosus</i>	spiny amaranth	-	+	+	<i>alefa</i>
<i>Canavalia ensiformis</i>	horse bean	-	+	+	<i>gbangbaragi</i>
<i>Capsicum annuum</i>	chili	-	+	+	<i>yaka</i>
<i>Capsicum frutescens</i>	pepper	-	+	+	<i>yaka</i>

Table 1 (Continued)

Scientific name	Common name	before 1810	19th cent.	1980s	Nupe name
<i>Citrullus lanatus</i>	Egusi melon	+	+	+	<i>epin</i>
<i>Corchorus olitorius</i>	Jew's mallow	+	+	+	<i>lalo</i>
<i>Cucurbita maxima</i>		-	+	+	<i>kondo</i>
<i>Cucurbita pepo</i>	pumpkin	-	+	+	<i>ebe</i>
<i>Hibiscus sabdariffa</i>	roselle, sorrel	+	+	+	<i>emagi</i>
<i>Kerstingella geocarpa</i>	Kersting's nut	+	+	-	<i>eyea</i>
<i>Lycopersicon esculentum</i>	tomato	-	-	+	as English
<i>Phaseolus lunatus</i>	lima bean	-	+	+	<i>ezo</i>
<i>Solanum gilo</i>	garden egg	+	+	+	<i>yengi</i>
<i>Solanum macrocarpon</i>	African eggplant	+	+	+	<i>yengi</i>
<i>Sphenostylis stenocarpa</i>	winged bean	+	+	-	<i>shinshere</i>
<i>Talinum triangulare</i>	waterleaf	-	-	+	as Yoruba
<i>Vernonia amygdalina</i>	bitterleaf	-	+	+	<i>shiwaka</i>
<i>Vigna unguiculata</i>	cowpea	+	+	+	<i>ezo</i>
<i>Voandzeia subterranea</i>	Bambara nut	+	+	+	<i>edzu</i>
		11	21	21	
Fruits					
<i>Carica papaya</i>	papaya	-	+	+	<i>konkeni</i>
<i>Citrus aurantifolia</i>	lime	-	-	+	<i>lemu</i>
<i>Citrus paradisi</i>	grapefruit	-	-	+	<i>lemuko</i>
<i>Citrus sinensis</i>	orange	-	-	+	<i>lemu</i>
<i>Mangifera indica</i>	mango	-	-	+	<i>mangoro</i>
<i>Musa paradisiacum</i>	plantain	-	-	+	<i>yabako</i>
<i>Musa sapientium</i>	banana	+	+	+	<i>yaba</i>
<i>Psidium guajava</i>	guava	-	+	+	<i>gweba</i>
<i>Spondias mombin</i> ⁷	hog-plum	+	+	+	<i>jinjere</i>
		2	4	9	
Miscellaneous					
<i>Cyperus esculentus</i>	tiger-nut	+	+	+	<i>aya</i>
<i>Gossypium</i> spp.	cotton	+	+	-	<i>lulu</i>
<i>Hibiscus cannabinus</i>	kenaf	-	+	+	<i>rama</i>
<i>Indigofera</i> spp.	indigo	+	+	+	<i>ecin</i>
<i>Lagenaria siceraria</i>	bottle gourd	+	+	+	<i>babo</i>
<i>Lawsonia inermis</i>	henna	-	+	+	<i>lali</i>
<i>Luffa cylindrica</i>	loofah	-	+	+	<i>rumaka</i>
		3	6	6	
Total		25	52	51	

7. This is one of the 'pantropical' species whose precise date and means of arrival in West Africa are disputed. It is assigned to the 'pre-Islamic' category on the basis of its establishment in Nupe.

Although North African cultigens were reaching the Islamic north of Nigeria much earlier (Lewicki, 1974), it is unlikely that they became important in Nupe until its conversion during the final decades of the eighteenth century. At approximately the same time, the river traffic had begun to make available maize, peppers and other products of the coast. The next phase was the colonial and post-independence era, characterised by agriculture departments, extension services and a deliberate policy of expanding cash-crop production. Despite relatively intensive effort, the number of crops cultivated has remained static or declined slightly. Only fruits have shown a substantial increase in numbers.

Historical change in diet preferences

It is difficult to produce a detailed inventory of Nupe cuisine in the pre-Islamic period. The principal inferences that can be drawn are negative; many types of foods were not present. For example, there are almost no convenience foods, such as fried or boiled cakes, with names indicating indigenous development. Most of the cultivated green vegetables have come from outside, suggesting a greater use of gathered leaves. Many processed products of indigenous trees, such as the locust and the baobab, have Hausa names. Apart from the spice-tree, *Xylocarpus aethiopicus*, almost all the spices appear to be imports. More developed forms of cereal processing, such as the making of thin gruels for breakfast, are also nineteenth-century innovations.

This suggests a cooking based on simply-processed cereal grains, served with meat or fish and oil, supplemented by gathered leaf vegetables. Meat was probably more diverse, since a great many birds, animals and insects are regarded as potentially edible. Bush fruits, which are numerous among the Nupe, were probably eaten raw, as apart from the locust and the black plum, *Vitex doniana*, no Nupe terminology exists for processed products.

After the Fulbe conquest, expansion of northward trade and an influx of Hausa merchants and craftsmen brought a large number of new cultigens, methods of food-processing and types of cooking. A sharp divergence between urban and rural cuisine developed during this period, corresponding broadly to the division between Islam and traditional religion. Meat, milk, spices and flavourings such as onions were gradually introduced into the towns, in part to reproduce the tastes of the new urban populations or to meet the demands of Islamic custom.

New crops appeared, especially those which could be cultivated in small irrigated plots. Among these were finger-millet (*tamba*), *Amaranthus* spp. (*alefa*), the onion (*lubasa*), the lime (*lemu*) and kenaf (*rama*) brought from the north. Laird and Oldfield (1837, II, p. 36) mention onions being cultivated in Egan towards the confluence, although it is possible they were simply for sale. Cultivated plants became more prestigious than traditionally gathered wild greens. Thus *alefa* was preferred to the wild leaves such as *nimbolo* or *walami*.

New practices of food preparation were also adopted, particularly the use of the leaves of the baobab (*kuka*) in soup, of gladiolus corms (*lumyanya*) to flavour food and of Guinea pepper (*masoro*) to spice food. Clapperton (1829, p. 139) describes a method of processing guinea-corn that had recently been borrowed, to make the *koko* used as a base for *katsa* gruel. Similarly the making of *dandawa*, fermented cakes from locust bean seeds, and the use of cassava to make starch were all introduced from the same source.

Clapperton (1829, p. 140) also mentions some of the types of fried cakes on sale at Kulfu ('Coulfo') a large entrepot market in the 1820s. The cakes, *alewa*, *dankuwa* and *bambara*, were of northern origin, and the range of drinks made by Hausa from sorghum

flour, tamarind and pepper had been adopted. Two types of cakes, *kara* and *lyalya*, made from cowpeas and Bambara nuts respectively, appear to have been borrowed from the Yoruba, although 1914 is the earliest date of their attestation.

Apart from vegetable foods, other dietary preferences were imported with Islam: dairy products and roasted meat. Nupe do not seem to have kept cattle before the nineteenth century, and rural livestock production was almost entirely built around goats. However, the incoming Hausa/Fulbe favoured dishes such as rice with butter, as Lander (1830, p. 185) mentions. Also *fura*, dry balls of 'guinea-corn' (sorghum) paste broken up with soured milk, are particularly eaten during Ramadan.

The custom of roasting meat with spices, *sire*, was introduced at this period. Clapperton (1829, p. 140) describes the grilling and smoking of meat at Kulfu. Bida and other Nupe towns became a southward extension of the places where livestock traders marketed their animals. Butchers, a highly elaborated class in Hausa society, moved down to the major Nupe towns to provision them with meat. Laird and Oldfield (1837, II, p. 67) give a graphic description of the abattoir at Raba. Even in the 1980s, most of the butchers are not of Nupe ethnic origin. Dairy products are supplied today by itinerant Fulbe pastoralists, whose wives sell milk, sour milk, butter and cheese throughout the dry season in Nupeland.

Although the importation of more elaborate cuisines incorporating vegetable foods could be adapted to the status system, their primary costs remained low. Because of this, they rapidly became inadequate to mirror the greater differences in personal wealth and the consequent ramification of the title system. The comparative concentration of surplus wealth that livestock represent was a better currency for status transactions, since in a region with endemic trypanosomiasis it was unlikely that supply would ever outstrip demand.

As a result, livestock and their products have become the principal expression of status transactions. Among the Nupe nowadays, the birth of a child is celebrated with the sacrifice of a goat or a sheep. The feast of the Prophet's birthday is normally marked by the distribution of roasted beef by wealthy men to the poor. Payment for divination may well be in chickens or pigeons, and these are the principal creatures slaughtered to offer guests in villages. Rice with butter and *fura* with soured milk are still favoured dishes on feast-days.

As the nineteenth-century sources testify, rural areas were also adopting a spectrum of new crops. However, they were very different in type; apart from fruits and stimulants, they consisted almost exclusively of staples. Many of these came up the river from the coast and were originally brought by the Portuguese from South America. Table 2 enumerates the plants adopted in the countryside in the nineteenth century.

Table 2: Plants adopted in 'rural' Nupe in the nineteenth century

<i>Allium cepa</i>	onion
<i>Amaranthus hybridus</i> ssp. <i>incurvatus</i>	African spinach
<i>Arachis hypogaea</i>	groundnut
<i>Canavalia ensiformis</i>	horse bean
<i>Capsicum annuum</i>	chili
<i>Capsicum frutescens</i>	pepper
<i>Carica papaya</i>	papaya
<i>Citrus aurantifolia</i>	lime
<i>Eleusine coracana</i>	finger-millet
<i>Hibiscus cannabinus</i>	kenaf
<i>Ipomoea batatas</i>	sweet potato
<i>Manihot esculenta</i>	cassava, manioc
<i>Nicotiana</i> spp.	tobacco
<i>Phaseolus lunatus</i>	lima bean
<i>Saccharum officinarum</i>	sugar-cane
<i>Xanthosoma mafaffa</i>	new cocoyam
<i>Zea mays</i>	maize

It is important to emphasise that the transformation of cooked foods was a strictly urban phenomenon. New staples adopted into rural diet were processed to make them resemble as closely as possible the foods they were partly replacing. Sweet potato, new cocoyam and cassava were boiled and pounded in the same way as the yam and the old cocoyam. Finger-millet and maize were made into a heavy porridge to be eaten with fish or meat. A feature of many of these new food-plants was their relatively low labour requirements. Cassava and sweet potato, for example, do not require the mounding and specialised attention of the traditional guinea-yams.

The colonial and independence eras have seen another transformation in diet—plants have continued to fall in status, while animal-derived and imported processed foods have become more dominant. Although the tomato and some fruits, notably oranges, grapefruit and guavas, have been adopted since 1900, the overall progression has been a slight reduction. This is somewhat paradoxical as the normal consequence of imperial domination is the reverse, especially where colonial authorities have had an Agricultural Service as active as the British in Nigeria. Efforts were made, both by missions and agricultural officers, to introduce new crops. Nadel (1942, p. 237) refers to attempts to encourage the cultivation of the grapefruit, and elsewhere in the country these policies were successful. For instance, carrots, cabbage, Irish potatoes and other vegetables are widely cultivated in the Plateau area as a cash crop, and the expansion in quantity in recent years indicates that the market has extended to urban Nigerians, as well as temporarily resident Europeans.

This is not to say that Nupe resist adopting new elements in cooking and serving food. The two food items with the most impact on Nupe cuisine are tinned tomatoes and stock cubes, which tend to replace *dandawa*, locust-bean cakes. As these are manufactured in Nigeria they are less subject to exchange fluctuations and can be purchased at almost any rural market. In the towns, more upscale processed foods such as bread, sweets, soft drinks and cornflakes are increasingly widespread. Nutritionally these are almost worthless, yet it is common to see them given to babies and offered to guests in wealthier households in both town and country.

Patterns of social and economic change among the Nupe

These developments in household economy partly follow the sequence of political transformations of the Nupe state. The scattered polities of the pre-Islamic era did not require a large flow of foodstuffs from rural areas, nor would their income have derived from the trade in high-value products of cultivated plants.⁸

A major change in economic patterns was brought about by centralising the Nupe state. The Fulbe conquerors originally established their capital at Raba, in the west of Nupe on the north bank of the Niger. From this point they could effectively control the river trade and use it as a base for slave-raiding. Later in the century, the non-central location became inefficient, and the capital moved to Bida in the savanna, east of the Kaduna river. This new site led to an expansion of rainfed cereal cultivation and a reorientation towards the overland long-distance trade-routes through the savannas.

At the same time, the wealth generated by slave-raiding supported a distinctive urban culture with a growth of all types of crafts and trades. With the Islamisation of the state, stratification increased, based on differences in personal wealth. With it came a corresponding expansion of the status hierarchy. While there were titles in pre-Islamic Nupe, as more Nupe became Muslims they grew in type and number, and their material attributes were established and defined (cf. the listing in Banfield, 1916, p. 190ff). The 'house' system of aristocratic families controlling retainers generated a complex series of distinctions in matters of dress, housing and other external markers. Such new social gradations were also reflected in an enlarged repertoire of prepared foods and therefore cultigens. Similarly, cash-crops such as kenaf, cotton, indigo, gourds, oil-palm and cola were more widely cultivated for sale in the towns.

Another aspect of the growth of towns was the demand for staples. Although Nupe aristocrats were awarded fiefs to provide them with an income,⁹ it is clear that this was ineffective in the provision of cereal staples. To feed this larger urban population, slave farms (*tungu*) were established on the outskirts of all the major urban centres. However, in the political chaos of nineteenth-century Nupe these became increasingly difficult to control and by 1900 many of the slaves had run away (cf. Mason, 1970, p. 401 and Kohnert, 1982, p. 91ff). Thus at the beginning of the colonial era it rapidly became apparent that the demand for staples in the town could also be supplied from the independent villages of the hinterland.

During the course of the twentieth century Nupe villages have increasingly concentrated on surplus staple production for sale to the towns. The colonial period had the immediate effect of improving internal communications. The railways allowed traders to move rapidly around the country, and the motor roads gave a chance to local entrepreneurs to buy trucks and move into the long-distance transport business. Since livestock, particularly cattle, are easily transported, this stimulated demand for meat in many areas where disease forbade stock-raising.

Where cash-crops predominate, the benefits of more efficient organisation of labour are more obvious. In addition, labour bottlenecks were increasingly common with rural-urban migration and the growth of the school system. A broad spectrum of crops, each requiring specific and specialised techniques, has been replaced by an emphasis on relatively few high-volume crops. Sorghum, millet, yams and rice are the principal crops sold to towns, along with palm and groundnut oil, shea-butter and palm-wine. The

8. With the possible exception of cola, which was controlled by the Etsu Nupe (Dupigny, 1920, p. 24).

9. A feature which has generated considerable scholarly discussion about the 'feudal' nature of the Nupe state.

productive Niger floodplains generally sell their rice directly to merchants with lorries who come from the larger urban centres in the north, Kano and Kaduna. Similarly, citrus fruits and bananas are sold both to Nupe towns and further afield.

One example of labour requirements forcing a reduction in crop numbers is the onion. It appears to have been introduced from Hausaland about 1800 and was well-established in the 1830s (Laird and Oldfield, 1837, II, p. 36). Onions require transplanting and tending in irrigated gardens in a way that Nupe do not otherwise favour. In addition, they grow larger in the drier climates of semi-arid Nigeria, for example in the Sokoto area, where whole communities are specialised in their production. Nevertheless, earlier in the century they were extensively grown in Nupe because of the high prices they commanded. Nowadays most of the onions for sale in the markets are brought by lorry from further north, because the cost difference between these and local onions has been virtually eliminated.

Conclusion

The Nupe had a large-scale pluralistic society, trade-conscious and monetarised in precolonial times. Contact with both the Islamic north and the societies below the Niger-Benue confluence in the nineteenth century allowed for the initial expansion of the cultigen repertoire. North African vegetables, spices and stimulants were brought by a new, hierarchised urban class. 'American complex' food-plants spread to Nupe from the south, and were adopted in the measure that they gave high yields for low labour expenditure. In the colonial period, the expansion of the cash economy meant that it became more efficient to grow only a limited number of crops in larger quantities and to depend on alternative resources in case of disaster. The decline in availability of labour meant that it was practical to expand the cultivation of crops demanding low labour inputs.

The argument of this paper is that a simple techno-environmental determinism is an inadequate explanatory framework for changes in cultigen repertoires. Soils, rainfall, market opportunities and labour availability are all important, but these are linked with the development of internal differentiation within the society, in terms of both hierarchy and specialised subgroups. Individuals who must achieve status are constrained largely in the choices they make in certain areas of discourse. Once foods are defined as markers of specific status then their production and importation begins to ramify and develop complex subdivisions. The combination of this with an expansion of personal wealth has allowed the development of a succession of status markers expressive of this surplus cash. Thus, during the early period of centralisation, large numbers of vegetable foods were introduced, but with greater wealth stratification, livestock products and imported foods replaced them in prestige.

REFERENCES

- Agboola, S.A. 1979. *An Agricultural Atlas of Nigeria*. Oxford University Press.
 Angulu, U.A. 1965. *Paddy rice cultivation in Bida Emirate, Niger Province*. B.A. thesis, Geography, University of Ibadan.
 Bantfield, S. 1914-16. *Nupe-English Dictionary*. Shonga: The Niger Press.
 Blench, R.M. 1986. 'The historical reconstruction of evolving crop repertoires among the Nupe and related peoples', in C.F. Hoffman, *Festschrift zum 60. Geburtstag*, pp. 33-44. Hamburg: Buske.
 ----- 1989. 'Nupoid', in J. Bendor-Samuel (ed.), *Niger-Congo*. University Press of America.
 Clapperton, H. 1829. *Journal of a second expedition into the interior of Africa*. London.

- Cuypers, J.-B. 1970. *L'Alimentation chez les Shi*. Tervuren, 80 Ser. 67.
 David, N. 1976. 'History of crops and peoples in Northern Cameroon to 1900 AD', in J.R. Harlan, J.M.J. de Wet and A.B.L. Stemler (eds.), *Origins of African Plant Domestication*, pp. 223-267. The Hague: Mouton.
 Dupigny, E.G.M. 1920. *Gazetteer of Nupe Province*. London: Waterlow.
 Kaufman, R. and R.M. Blench (ined.). 'Livestock production systems in the subhumid zone of Nigeria'. Pre-publication copies produced for the International Livestock Centre for Africa, Addis Ababa, Ethiopia.
 Kohnert, D. 1982. *Klassenbildung im Ländlichen Nigeria*. Hamburg: Institut für Afrika-Kunde.
 Lagemann, J. 1977. *Traditional African Farming Systems in Eastern Nigeria*. München: Weltforum Verlag.
 Laird, R.A.K. and M. Oldfield. 1837. *Narrative of an Expedition into the Interior of Africa*. London: Richard Bentley.
 Lander, R. and J. Lander. 1832. *Explorations and Adventures on the Niger River*. London: Ward Lock.
 Lewicki, T. 1974. *West African Food in the Middle Ages*. Cambridge University Press.
 Lines, G.W. 1943. 'The Bida rice industry', *Farm and Forest* 4, 89-91.
 Mason, M. 1970. *The Nupe kingdom in the nineteenth century: A Political Economy*. Ph.D. thesis, Centre for West African Studies, Birmingham.
 ----- 1973. 'Captivity and client labour and the economy of the Bida Emirate', *Journal of African History* 14, 453-471.
 Meek, C.K. 1925. *The Northern Tribes of Nigeria*. London: Humphrey Milford.
 Murdock, G.P. 1959. *Africa: Its Peoples and their Culture History*. New York: McGraw Hill.
 Nadel, S.F. n.d. Field diary. Archives of the London School of Economics.
 ----- 1942. *A Black Byzantium*. London: OUP for IAI.
 Netting, R. McC. 1968. *Hill Farmers of Nigeria*. University of Washington Press.
 Simpson, W.H. 1871. 'Report of the Niger Expedition, 1871', letter to Earl Granville. Public Record Office.
 Temple, O. and C. L. (eds.) 1922. *Notes on the tribes of Northern Nigeria*, repr. London, 1965.