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THE HISTORICAL RECONSTRUCTION OF EVOLVING CROP REPERTOIRES AMONG THE NUPE AND RELATED PEOPLES

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1. Introduction

This paper derives from research[1] into the comparative cultigen repertoires of the Nupe and related peoples in Central Nigeria. Its original purpose was the collection of more accurate data for inclusion in the revised edition of the *Useful Plants of West Tropical Africa* (BURKILL 1985). However, it soon became clear that the lexical data collected in this way could also be used to reconstruct the historical 'layering' of cultigen repertoires and thus linked to other aspects of the prehistory of the group as a whole.

The method used is the comparison of the names of the principal traditional cultigens across the group as a whole, to establish whether proto-forms can reasonably be reconstructed, and if so to what historical level. More recent introductions are identified through the consideration of neighbouring languages as possible sources of lexical items. In some ways this technique resembles that used by WILLIAMSON (1970) except that this paper deals with a linguistic rather than a geographical entity. The reconstruction is mediated by what is presently known about the historical origins and spread of various cultigens in Central Nigeria.

The linguistic documentation of vernacular names for useful plants is far from complete, but enough material is available to present partial reconstructions for the major cultigens.

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2. The Nupe-Gbari-Gade-Ebira Group

A more complete discussion of the Nupe-Gbari-Gade-Ebira group of languages, hereafter NGGE, can be found in BLENCH (forthcoming). The NGGE peoples occupy a relatively contiguous territorial block in Central Nigeria between the Niger-Benue confluence and the Kaduna river (Map 1). The subclassification of the NGGE group, derived from lexicostatistical counts, is given in Table I. Many of the groups comprising NGGE have remained undescribed in the ethnographic literature, and some that have been reported have been misclassified (cf. BLENCH forthcoming). Only the Nupe have been the subject of intensive ethnographic fieldwork (TEMPLE 1922; NADEL 1942, 1954). NADEL only discusses agricultural practices that relate to the major cultigens.

The peoples composing the NGGE group are almost without exception arable cultivators, with domestic livestock confined to sheep and goats. Two groups, the Kyadya and the Kakanda, have a limited specialisation in fishing and riverine commerce, but both retain an arable base. The region they inhabit, with its fertile river-valley soils and relatively low population densities has favoured a broad range of cultivated plants, characteristic of both the semi-arid and humid regions. In general, peoples of the NGGE groups live in dispersed agricultural villages and are politically acephalous. However, the Nupe constitute an important exception to this, as they have had state-systems for many centuries (cf. NADEL 1942 for a summary of Nupe political history). In particular, the Nupe state grew and expanded as a result of the conquest by Fulbe from Sokoto in the early nineteenth century, and all types of Muslim cultural elements entered Nupe, and to a lesser extent diffused to the peoples adjacent to them.

The prehistory of the group as a whole remains uncertain, as there has been little or no archaeological work in this region.

BENNETT and STERK (1977) argue for a special relation between NGGE and Idomoid languages, and this is supported by the lexicostatistical studies of ARMSTRONG (1982). It therefore seems reasonable to assume that the origin of the group may be in the region of the Niger-Benue Confluence. The northward spread of Nupe and Gbari appears to be responsible for the geographical and linguistic division of Kainji and Plateau languages (see map accompanying HANSFORD et al. (1976) and GERHARDT forthcoming).

3. Historical Layers within the Cultigen Repertoire

The NGGE cultigen repertoire can be broadly divided into four phases; plants exploited by speakers of the proto-language, plants adopted during the expansion of the group, plants brought from the North in the wake of the Islamic Jihad of the early nineteenth century, and plants brought or spread during the colonial period. Hypotheses about the first two phases are limited to inferences from linguistics that can be interpreted using the fragmentary palaeobotanical evidence available for West Africa, and the bulk of the discussion is therefore centred upon them. Table II summarizes the data available on plants of unknown antiquity in the attempt to establish their time depth and provenance.

3.1 The earliest layer

It is suggestive that no terms in the NGGE lexicon can be unambiguously reconstructed that refer to farming technology. Neither words for agricultural tools, farm, field etc. are there, with a possible exception of a type of hoe *-ku, that may be interpreted as a digging stick. Nevertheless, four very ancient cultigens, okra (*Hibiscus esculentus*), cowpeas (*Vigna unguiculata*), egusi melon (*Citrullus lanatus*), and garden egg (*Solanum incanum*) appear to reconstruct back to this period. All of these are indigenous to West Africa and it seems likely that these terms were applied initially to wild or 'protected'

forms of these plants, and only later to fully domesticated types. In addition there is a possible reconstruction for 'mushroom', which appears as *munu.

Paradoxically, there are no reliable reconstructions for certain regularly exploited wild trees, in particular the locust (*Parkia clappertoniana*), the tamarind (*Tamarindus indica*), the shea (*Butyrospermum paradoxum*), and the silk-cotton (*Ceiba pentandra*). This suggests an interpretation evident from more detailed ethnobotanical enquiries among the Nupe; that wild plants only acquire consistently-applied, supralocal terminology when they are regularly exploited over a long period. For example, among the Nupe-Gbari (Level IV), there are no consistent terms for baobab, and indeed the term for the leaves, gathered to make a mucilagineous soup, is usually borrowed from Hausa 'kuukâ'. This suggests that the baobab has only been regularly exploited in recent times, and therefore, the diversity of local names has not yielded to a common term.

A reconstruction for the West African yam (*Dioscorea guineensis*) reaches back to Level II, although this root is so widespread in West Africa (e.g. Igbo 'ji', Igala 'ucu' cf. ARMSTRONG 1964:55) that it must almost certainly be reconstructed to Level I, with the divergent Ebira forms as replacements. However, since the same term refers equally to wild and cultivated forms, this provides no clue to the antiquity of yam domestication. The sorghums and millets and a broad range of cultigens such as the aerial yam (*Dioscorea bulbifera*), the bottle-gourd (*Lagenaria siceraria*), the Bambara groundnut (*Voandzeia subterranea*), fonio (*Digitaria exilis*), sorrel (*Hibiscus sabdariffa*) and bitterleaf (*Vernonia amygdalina*) can be taken back as far as Level III (Nupe-Gbari). This does suggest that some type of intensive arable cultivation was initiated at this period. Since sorghum and millet, at least, were certainly domesticated elsewhere in Africa (HARLAN and STEMLER 1976, BRUNKEN et al. 1977) a proto-agriculture, consisting of the cultivation or protection

of bush-vegetables such as okra, cowpeas and garden-eggs, would have been transformed by the adoption of grains from further north.

It is hard to put a date to this occurence, in view of the complete absence of local archaeological material, but FLIGHT (1976:217) has argued that cowpeas were being regularly cultivated in present-day S. Ghana by 1250 B.C. and the sorghums and millets probably by 2-3,000 B.C. (HARLAN and STEMLER 1976). Therefore, a date of 3,000 B.P. may be tentatively assigned to the adoption of intensive agriculture.

3.2 Cultigens Added during the Expansion of NGGE Speakers

To identify the period of the subsequent addition of indigenous or anciently established cultigens is difficult as they were presumably adopted from neighbouring peoples. For example, the locust tree (*Parkia clappertoniana*) only reconstructs in NGGE as far as Level VI. However, it is systematically exploited by all speakers of NGGE languages today for the seeds used in fermented cakes for food flavouring. This suggests that it was borrowed from neighbouring ethnic groups at a variety of times and places.

The oil-palm (*Elaeis guineensis*) is widely but sporadically cultivated throughout the NGGE area, both for the palm-oil it produces and the palm-wine. None of the NGGE terms show any cognates with Idomoid, however, and the Nupe term, yìkūnuci, appears instead to be derived from Igbo nkwu. This suggests that its exploitation is relatively recent in historical terms, and derived from professional cultivators trading along the river.

Terms for cocoyam pose another type of problem; most NGGE languages have 'koko' or a similar form, and this is widespread throughout West Africa. As the old cocoyam (*Colocasia esculenta*) was originally domesticated in S.E. Asia (PURSEGLOVE 1976:306)

this cannot be an ancient Niger-Congo root, but must rather reflect recent widespread borrowing.[2] However, just as the period of diffusion of the cocoyam itself remains unknown, so does the period of its entry into the NGGE cultigen repertoire.

Bananas and plantains, also of S.E. Asian origin, show two points of introduction into the NGGE area. Among the Nupe and northern Gbari, the term is generally some form of àyàbà, a loanword from Hausa. Further south, words for plantain and banana are borrowed from diverse sources, Igbo, Igala and Idoma. This diversity of sources suggests the bananas are of no great antiquity among NGGE speakers although the period of their adoption is no longer remembered.

Rice, similarly is clearly not of great antiquity, since all terms for it, except the Gbari 'cə̀whi' (meaning 'Hausa sorghum') are loans from the Hausa **shìnkaafa**. Nevertheless, the 'naturalization' of the loanwords[3] does indicate a certain tradition as does the extensive and apparently ancient establishment of paddy-rice cultivation on the Niger and Kaduna river. Thurstan SHAW (pers. comm.), on the basis of excavations at Zungeru, argues that rice (here *Oryza glaberrima*, African rice) could have been a staple as early as the 4th century A.D. In view of Leo AFRICANUS' report (cited in BOVILL 1968:150) that wet rice was well established in Gobir in the sixteenth century this is at least possible.

A number of other cultigens, widely used among the NGGE peoples, are not sufficiently well documented to establish their linguistic ancestry. These include the Hausa potato (*Plectranthrus esculentus*), sesame (*Sesamum indicum*), the bush-candle tree (*Canarium schweinfurthii*) and the akee apple (*Blighia sapida*).

2 It has been suggested that -koko is a form of kolokas, the Arabic term.

3 Compare Gupa 'akapa' from 'ajikapa' perhaps through Nupe cə̀nkafa.

3.3 The Islamic Period

Nupe, like Ilorin and Wukari was conquered by the forces set in motion by the Jihad that began in Sokoto in 1805. Apart from the religious and political impact, a whole cultural repertoire of food and culinary practices, music, dress and plastic arts, such as leatherwork, were brought in at this period. The adoption of baobab leaves has been mentioned above; in addition, spinach (*Amaranthus caudatus*), the banana (to northern groups only), the onion, henna (*Lawsonia inermis*), the edible squash (*Cucurbita pepo*), cola (to groups east of Nupe only), the loofah (*Luffa cylindrica*), kenaf (*Hibiscus cannabinus*), turmeric (*Curcuma domestica*) and the swordlily (*Gladiolus sp.*) date from this era. These can be identified as Hausa loans, as they continue to bear the original Hausa names, barely adapted to NGGE phonology.

Apart from these, there are a broad range of crops that were brought to Africa though European trade, but which have names derived from Hausa. These may have spread to Nupe only in the colonial era, or alternatively could have been transmitted in the pre-colonial period. They include cassava, tobacco, American groundnuts and the orange.

3.4 The Colonial Period

The dramatic changes of the colonial and post-colonial periods further expanded the cultigen repertoire. A potent aspect of this was a conscious agricultural policy, that encouraged, for example, groundnuts, cotton and oil-palms, because of their economic importance to the colonising power. Moreover, missionaries attempted the introduction of citrus fruits, initially for their own consumption (NADEL 1942:237). However, the rise of cash crops, such as groundnuts, sugar-cane, tomatoes, peppers and citrus has tended to displace certain traditional crops. Bambara groundnuts and other pulses are no longer common, and the small tubers, rizga, tumuku and the aerial yam have virtually disappeared.

The evolution of internal trade within Nigeria also brought with it various cultigens from further south, although these appear to have been spontaneously adopted, as they had no commercial value to the colonising power. Among these are maize, lima bean, pineapples, coconuts, Asian rice, and pawpaw. A frequent indication of this type of local diffusion is the construction of vernacular terms to describe adopted items. The coconut in Nupe is yìkunnu kpótá, meaning 'six hundred palm-nuts' and the pawpaw kónkení, meaning 'Hausa shea-nut'.

4. Conclusion

This paper presents a dynamic overview of the evolving cultigen repertoire of the NGGE groups, and illustrates the value and potential pitfalls of using linguistic evidence to reconstruct its early stages. The inadequate state of current knowledge, both about certain NGGE languages, and of the cultigen repertoires of neighbouring peoples makes the conclusions reached here necessarily tentative.

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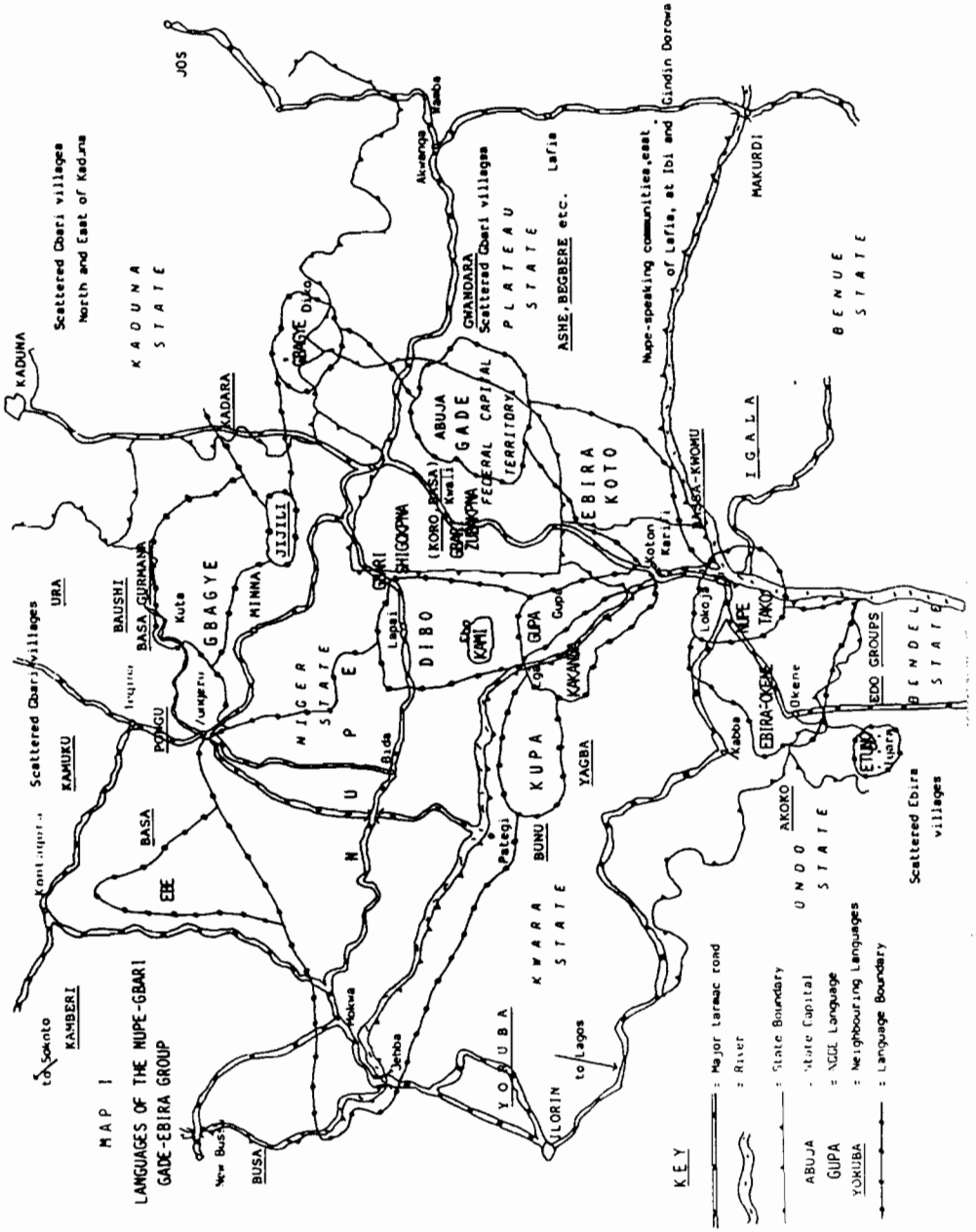
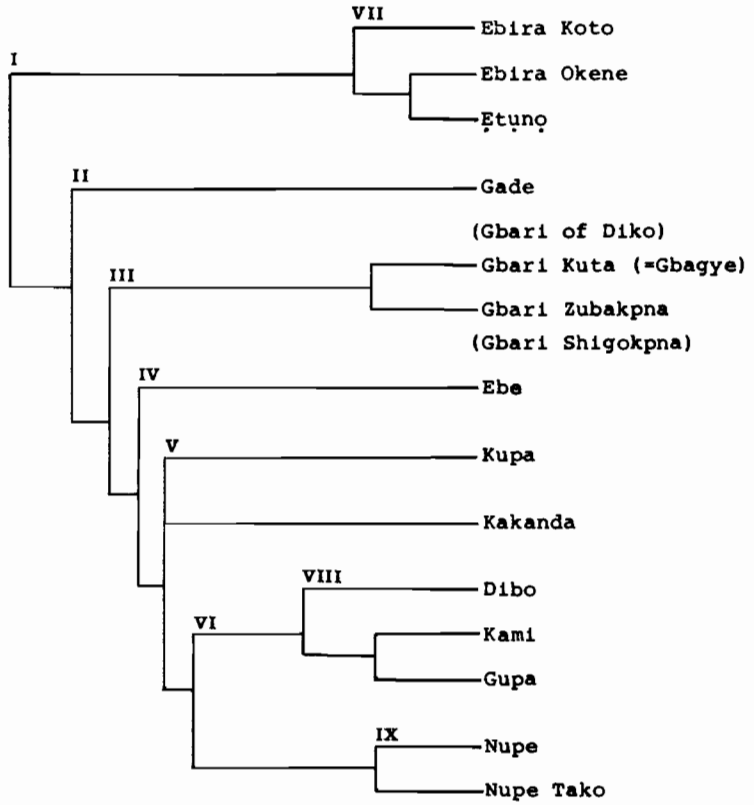


Table I Internal Relations of the Languages of the NGGE Group. Showing Levels of Reconstruction for Cultigens.



Roman numerals indicate possible levels of reconstruction for individual lexical items.

TABLE II Indigenous Cultigens or Protected Wild Species Exploited by Speakers of NGGE Languages with Partial Reconstructions and Indications of the Level of Reconstruction

1. Roman numerals refer to the depth of reconstruction as indicated on Table I.
2. Reconstructions are incomplete due to inadequate documentation of certain NGGE languages, and are therefore asterisked and should be treated with due caution. Where crucial lexical items remain unknown and therefore the depth of reconstruction is uncertain the exclamation mark follows the roman numeral.

PLANT	SCIENTIFIC NAME	DEPTH	RECONSTRUCTION
1. Okra	*Hibiscus esculenta*	I	*-kp=
2. Cowpea	*Vigna unguiculata*	I	*-zo
3. Garden egg	*Solanum incanum/melongena*	I	*-kū
4. Egusi melon	*Citrullus lanatus*	I	*para
5. Mushroom		II	*munu
6. Guinea yam	*Dioscorea guineensis*	II	*-ci
		VII	*ẹnụ
7. Aerial yam	*Dioscorea bulbifera*	III!	*-dū
8. Gourd	*Lagenaria siceraria*	III	*bābo
		VI	*-vo
		V!	*-tsa
9. Fonio	*Digitaria exilis*	III!	*Curu
10. Sorghum	*Sorghum bicolor*	III	*-yi
11. Bulrush millet	*Pennisetum sp.*	III	*mayi
12. Bambara groundnut	*Voandzeia subterranea*	III	*-BŪ
13. Sorrel	*Hibiscus sabdariffa*	III!	*-mā
14. Bitterleaf	*Vernonia amygdalina*	III!	*-su
15. Oil-palm	*Elaeis guineensis*	III	*-zū
		VI	*-kū
16. Shea tree	*Butyrospermum paradoxum*	III	*-ko
17. Tamarind	*Tamarindus indica*	III	*-da
18. Silk-cotton	*Ceiba pentandra*	V	*-ku
19. Locust	*Parka clappertoniana*	VI	*-ro

C is an unreconstructable consonant B is an unreconstructable bilabial