

## Consonant Alternations in Ancient Agricultural Vocabulary: A window into the linguistic pre-history of West Africa.

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The linguistic pre-history of West Africa remains to this day an intriguing puzzle. While the well-studied Bantoid/Bantu language family can be dated to some proto-stage, perhaps some 5000 years before present (Shillington 2019), the phylogenetic relationships between other language families subsumed under the first-order Niger-Congo linguistic family remain disputed. Dogon and Mande languages show sufficient typological and lexical dissimilarities to be considered distinct phyla going back to a very ancient period (Greenberg 1963; Güldemann 2018), but other neighbouring languages escape clean classification. Blench (2015) argues that Songhay is the remnant of a vanished Eastern Nilo-Saharan linguistic area, and Bangime the result of language shift away from this substrate. The classification of these West African languages is made fragile by a lack of solid paradigmatic reconstructions and evidence-based neogrammarian sound correspondences.

Notwithstanding this classificatory challenge, these languages present a striking shared vocabulary, notably concerning agriculture and animal husbandry (cf. Author 2 *forthcoming*). For example, one finds a shared root for ‘fonio (*digitalia exilis*)’ a cultivated grass and a prominent African food staple: Songhay *fɪŋgi*, Mayaa Samo *piini*, Soninke *pùwǒ* and Dogon *pòŋó*. All contain a labial obstruent + V + nasal resonance (nasal obstruent [ŋ], [n] or nasalisation [ǰ]). Likewise, the word for ‘donkey’ shows up as Songhay *fàrk-ò*, Soninke *fàrê* and Dogon *pàrá-ŋgò*, with a shared labial obstruent + open central vowel + r sequence. Figure 1 provides additional examples of shared lexical items.

**Figure 1: Shared Lexical Items across several West-African Languages**

gloss	1. Bondu So (Dogon) 2. Togo Kan (Dogon)	Songhay (Eastern)	Soninke (Bozo, Mande)	Jenaama (Bozo, Mande)	Mayaa Samo (Mande)	Bangime (Isolate)
Sheep	1. pèdǰí	fèèdǰi				
Donkey	1. párá-ŋgò	fàrk-ò	fàrê	sèm-pùwò		búwó ‘horse’
Okra	2. ògò pòóró	-	-	wāā	fɔɔro	bìrò n dǰ ‘maize’
Fonio	2. pòŋó	fɪŋgi	pùwǒ	pùwǒ	piini	wī-bè

Dogon systematically has /p/ where Nilo-Saharan Songhay shows /f/. Other cases of foreign /f/, even within Niger-Congo, such as (Mande) Mayaa Samo *fɔɔro* ‘okra’ contrast with Dogon *ògò pòóró*, and suggest a regular alternation of the voiceless labio-dental fricative with the bilabial stop. As Author 2 has shown, because neither Dogon nor the neighbouring Bangime language contain /f/ in their phonological inventory, loanword adaptation has occurred resulting in the /f/ of the target language being replaced by the nearest Dogon phoneme: /p/. In Bangime, this adaptation seems instead to have been accomplished by the substitution of the bilabial approximant /w/. Because neogrammarian proof of deep-time genetic relation is still lacking, the apparent lexical similarity is more easily accounted for as borrowing (language contact). Likewise, the fragmentary and disputed structuring of the West African phylogenetic tree does not (yet) allow for the reconstruction of a shared West-African proto-form: Dogon [pèdǰí] ‘sheep’ shares an almost-equal phonological similarity to Proto-Bantu *\*pòidí* BLR2 (1998) ‘sheep’ as it does with Songhay [fèèdǰi] ‘sheep’.

Though our data are still partial, comparative work within the ongoing BANG project hopes to uncover regular sound correspondences among West-African languages. These incremental observations concerning the historical phonology of the region, what Nichols (1992: 25) has dubbed the “discovery procedure”, hopes to bring further clarity to the linguistic pre-history of West Africa, at least on the small scale of the Bandiagara Escarpment in northern Mali, and shine a light on potential deep-time genetic connections between Bangime, the Dogon, Songhay and Mande languages.