

**Linguistic evidence for the
chronological stratification of
populations South of Lake Chad**

**Megatchad
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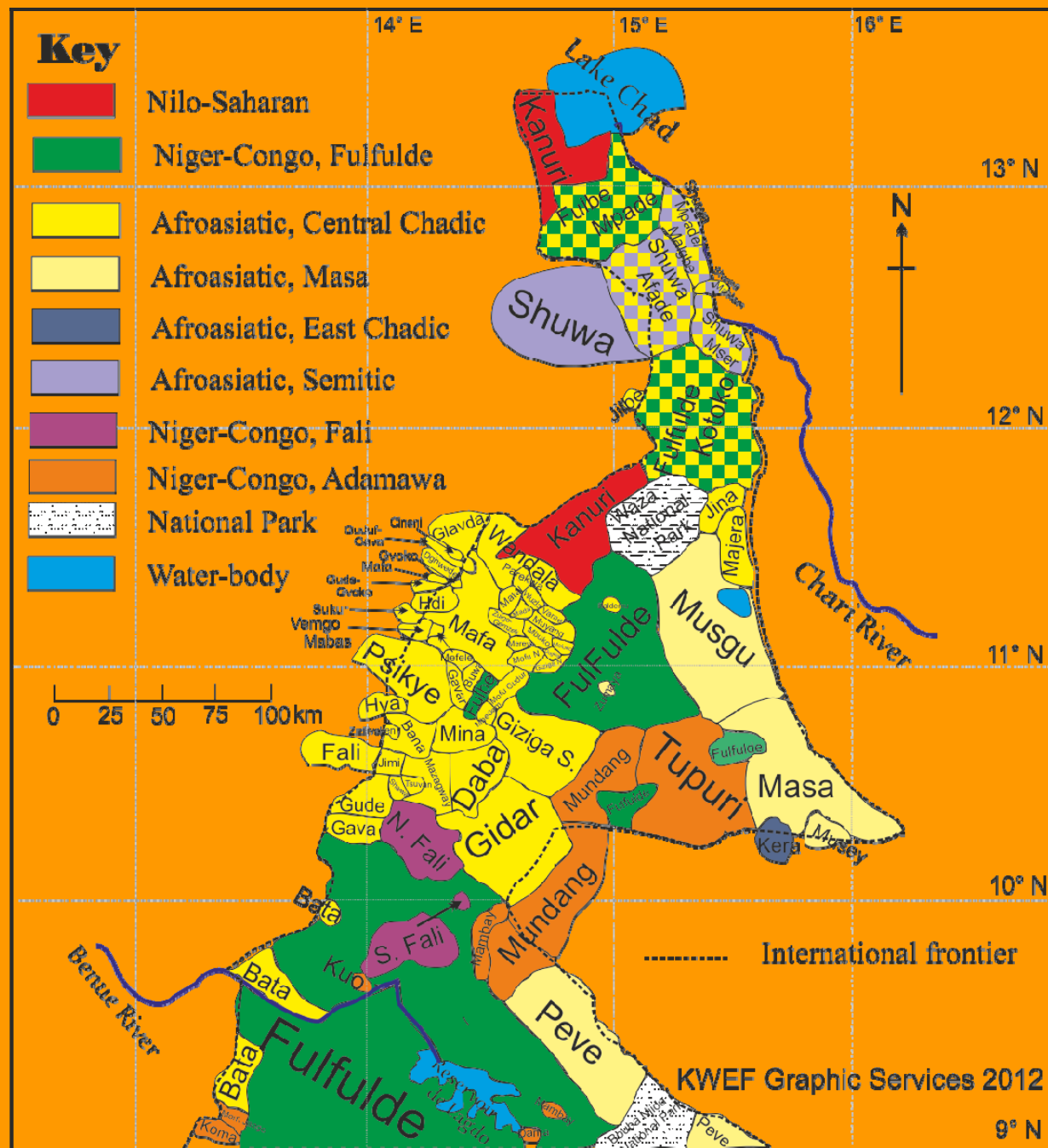
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How did the current pattern of languages south of Lake Chad arise?

- The current pattern of languages south of Lake Chad is a complex scatter of Chadic languages, intertwined with the Fali and Adamawa (Niger-Congo) languages further south.
- More recent entrants have been Nilo-Saharan, Shuwa Arabs and Fulbe.
- An unresolved question is whether Adamawa speakers were once further north and have been either assimilated or displaced by the expansion of Central Chadic.
- The paper explores the evidence for interaction between the two language families, and then tries to assess the evidence for the possible structure of these events.
- The map shows the current distribution of languages



A pattern of extreme fragmentation

- The pattern of languages shows extreme fragmentation, a mosaic of numerous small ethnolinguistic groups intertwined with one another.
- This suggests chronological stratification, individual populations expanding at the expense of others and assimilating resident peoples or breaking them into geographically distinct subgroups.
- So much is apparent from linguistic geography.
- But the consequences of such a pattern for language structures, society, genetic makeup and material culture has been barely explored and the archaeological signatures of these movements and assimilations have yet to be determined.

A pattern of extreme fragmentation

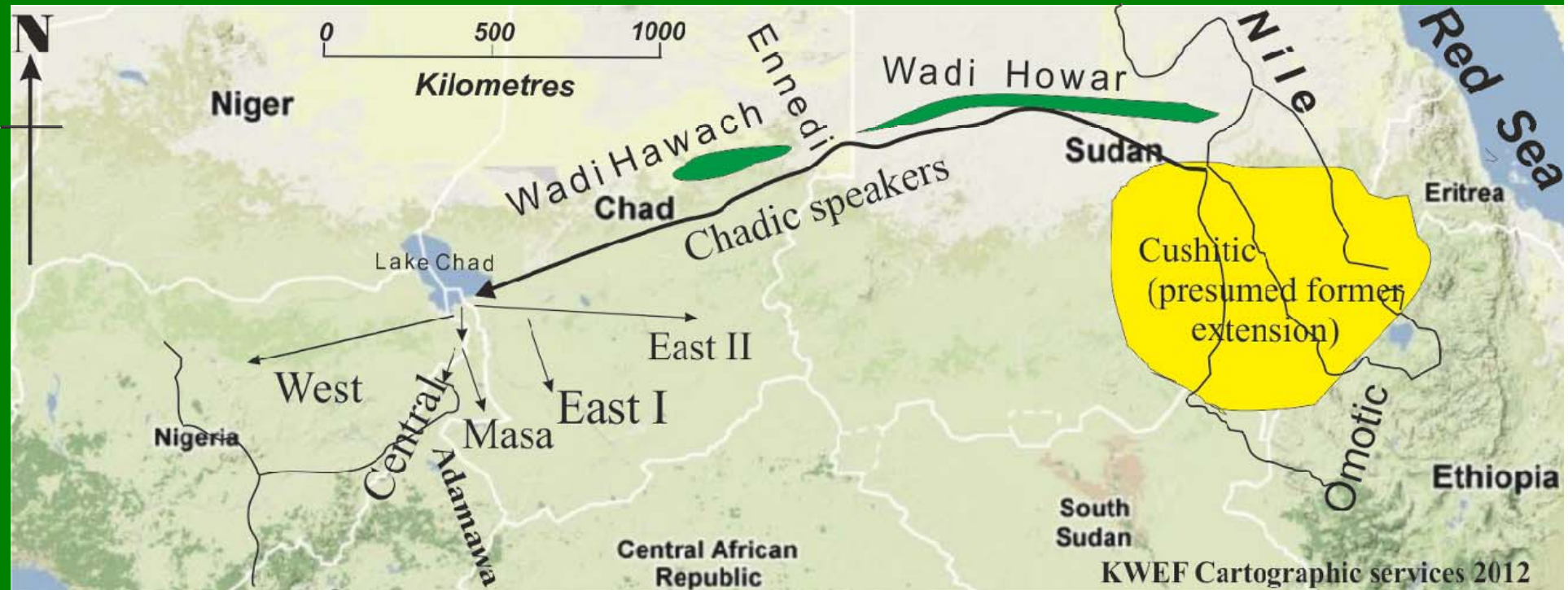
- The languages spoken around Lake Chad today are Chadic (Yedina), Semitic (Shuwa Arab), Saharan (Kanuri/Kanembu) and even Atlantic (Fulfulde). The Shuwa Arabs arrived in the medieval period and the Fulbe still more recently, probably in the eighteenth century.
- Nomads such as the Anagamba, a Fulbe subgroup, presumably preceded the militarised Fulbe who set up the Northern Lamidates in the wake of the early nineteenth century Jihad of Usman dan Fodio.
- The peoples who inhabit the Lake itself, the Chadic-speaking Yedina (Buduma), are now encapsulated by the Kanembu, but their nearest relatives further south are the Kotoko cluster, speakers of Central Chadic languages.
- South of this are Fulbe-speaking zones, a national park and a further intrusion of Kanuri speakers.
- Below this are two blocks of Chadic, Central Chadic and Masa, split by a salient of Adamawa languages. Immediately abutting the southern edge of Central Chadic are the Fali languages, of uncertain classification but clearly Niger-Congo, and then more Adamawa languages.

Chadic languages

- Chadic is by far the most diverse of all of the subgroups of Afroasiatic and also the least well-documented, with new and distinct languages still being recorded for the first time.
- The place of Chadic within Afroasiatic has been much debated, but there is a strong case for linking Chadic with Cushitic, assuming that speakers migrated along the now-dry Wadi Hawar from the Nile Confluence some 4-5000 years ago (Blench 1995).
- These migrants would have been interwoven with Nilo-Saharan speakers who would have spread across this region at an earlier period. This has found rather general support with genetic studies (e.g. Cerny et al 2007, 2009) although these cannot support a particular date.
- The claim by Ehret (2006) that Chadic speakers settled south of Lake Chad as early as 6000 BC is difficult to reconcile with either the archaeological or linguistic evidence, especially as Ehret claims that 'sorghum' is reconstructible to proto-Chadic (cf. McEachern 2012).

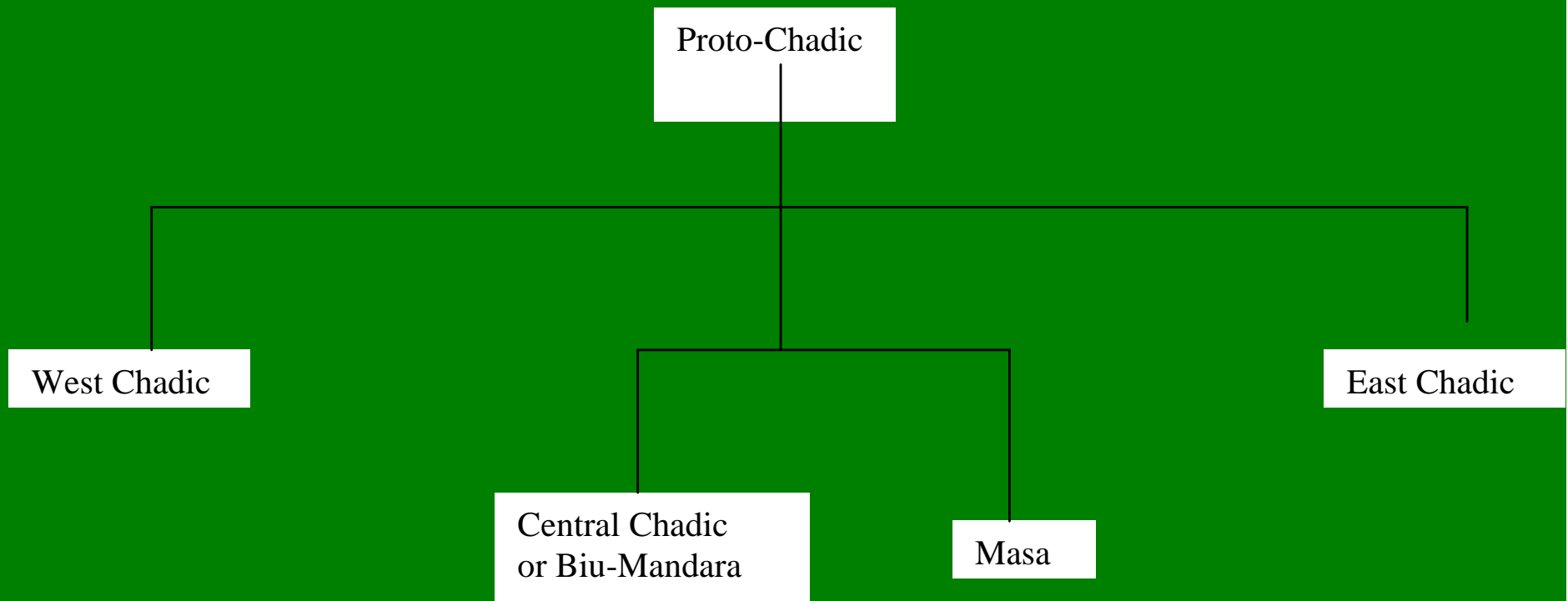
Chadic languages

- The map shows a hypothetical scenario for the expansion of Chadic westwards along the disappeared waterways of Central Africa and then outwards from the Lake Chad.



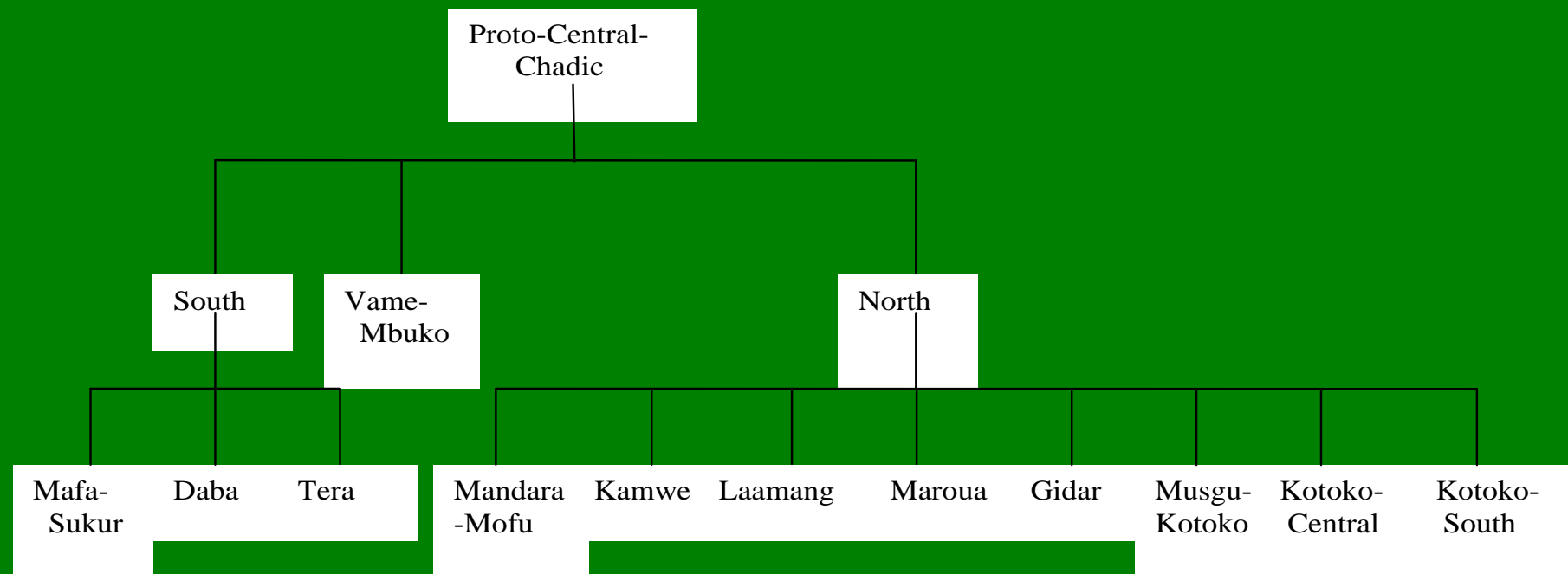
Chadic languages

- The internal classification of Chadic remains controversial. Greenberg (1963) left Chadic with nine rather ill-defined subgroups, but Newman and Ma (1966) reduced this to three major divisions, later expanded to four by separation of the Masa group (Newman 1977), an argument not accepted by all Chadic scholars (Tourneux 1990). The tree leaves Masa as a separate branch but co-ordinate with Central Chadic;



Chadic languages

- Central Chadic languages are split into two major geographical zones, the Kotoko and Yedina languages on Lake Chad and on the affluents of the Logone, and the remainder, in the Mandara mountains and plains west into Nigeria as far as Gombe. This misled some earlier classifications to treat the divide between Kotoko and the remainder as a genetic split, but as Gravina argues, this is not supported by the linguistics. The figure shows the internal classification of Central Chadic following Gravina, with some abbreviation and modernisation of language names.



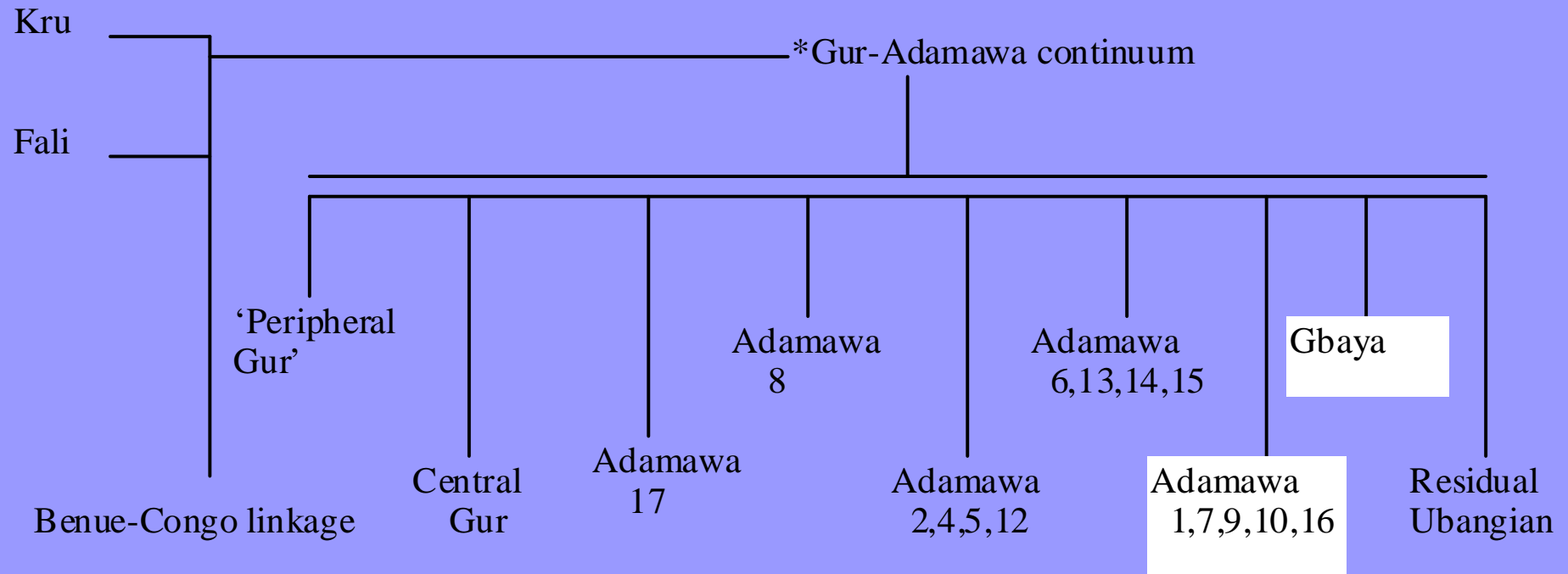
Chadic languages

- The Masa languages are today divided from Central Chadic by a northward salient of the Adamawa Mbum group, Mundang and Tupuri.
- The Masa group probably headed southeast into the plains and the Mandara branches of Central Chadic climbed into the mountains to begin their colonisation.
- Compared with the Masa group, Central Chadic is massively internally diversified.
- There should be significant cultural and lexical interchange between Chadic and Adamawa speakers, but this seems to be surprisingly limited, except for one case, Tupuri.
- Tupuri borders on Masa and one of the East Chadic groups, Kera. Many Tupuri words are so similar to Chadic that it was thought to be Chadic in some earlier sources.
- Despite the large number of borrowings in Tupuri, these do not include many basic subsistence terms, except for 'transplant' (*repiquer*) sorghum, reflecting the introduction of *muskwari*, the dry season sorghum.

Adamawa languages

- The Adamawa-Ubangian languages were first defined by Greenberg in 1955, having been previously treated as 'isolated languages'. The large group of languages spread between Central Nigeria and Chad formed a distinct group, 'Adamawa-Eastern', the term 'Eastern' referring to the languages today known as Ubangian, spoken mainly in CAR and Sudan, consisting of Gbaya, Zande and similar groups.
- Bennett & Sterk were the first to link Adamawa-Ubangian with the Gur languages of Burkina Faso, and indeed the two share a striking common feature, the use of suffixed noun-class markers.
- Proof that the Adamawa languages actually constitute a group has been sorely lacking, and Kleinwillinghöfer argues that the westernmost groups of Adamawa are more closely affiliated to Gur than to those further east.
- Kleinwillinghöfer argues that there must also have been substantial interaction between Adamawa and Benue-Congo languages in Central Nigeria. This makes sense, as the expansion of Hausa southwards undoubtedly split apart a long chain of genetically related languages.

The Gur-Adamawa continuum



Subsistence terms and clues to interactions in prehistory

- Understanding population movements in this region can be best interpreted by hypotheses about subsistence strategies, and this in turn can find support in linguistic reconstructions.
 - The appendices give tables of key subsistence terms in Central Chadic and nearby Adamawa and Fali languages, including cow, goat, fish, crocodile, millet/sorghum.
 - It is striking that there are virtually no common lexemes with Adamawa and Fali. Chadic typically has *ʃa* for 'cow' [also reflected elsewhere in Afroasiatic] and Adamawa languages **naa*, a widespread Niger-Congo root.
 - Proto-Chadic **kirif* 'fish' is not borrowed into Adamawa. Roots for cereals such as sorghum and millet are extremely variable suggesting that these are relatively late introductions.
- The archaeobotanical evidence which suggests that millet (not sorghum) first enters the archaeological record by 1200 BC (Neumann 2003). Magnavita (2002) records one of the few finds of sorghum in the Lake Chad region.

Subsistence terms and clues to interactions in prehistory

- The importance of fisheries in Central Chadic subsistence strategies is reflected by the easily reconstructible terms for 'fish' and 'crocodile'.
 - 'Cow' and 'goat' are also reconstructible, reflecting a strategy of pastoralism combined with fisheries.
 - Some Adamawa terms for 'cattle' resemble the Niger-Congo root *#naa*, strongly suggesting a distinct stream of cattle introductions. The small humpless taurines kept in this region are clearly the oldest layer of livestock-keeping, suggested by the many rituals surrounding them. Whether these were dispersed by Chadic speakers as they moved south remains an open question.
 - No grain crops can be reliably reconstructed to proto-Central Chadic, and it is reasonable to assume that these were only adopted subsequent to speakers' dispersal. Similarly, Adamawa terms for grain crops are diverse and do not resemble Chadic.
- But the lack of linguistic interaction in south-central Mandaras suggests that Chadic speakers initially expanded as fishers and herders into territory that was barely populated, and that they came into contact with Adamawa-speakers, who were primarily foragers, *only after* much of the diversity of Central Chadic was already in place.

Fisheries



Archaeology I

- The archaeology of the southern basin of Lake Chad is still very patchy. Although there have been surface finds of Acheulean and MSA artefacts in the Mandara Mountains, these are out of context and do not indicate continuous settlement. There is no evidence for *modern* human occupation prior to the Holocene.
- For the next few millennia only isolated finds, such as the remarkable 8000 year-old Dufuna canoe, point to possible subsistence strategies. Konduga, southeast of Maiduguri, has pottery at the similar period, but this is an isolated site.
- By 4000 years ago evidence of human occupation appears with sites such as Gajiganna southwest of Lake Chad. The pottery has wide affinities across the Sahel; geographically it maps against Nilo-Saharan.
- A thousand years later, more settlement sites appear, for example the evidence for agriculture in the Diamare plains and in the Mandara mountains. Magnavita et al. document the increasing size and complexity of settlements in the Lake Chad Basin, and this must be connected with agricultural intensification.



Archaeology II

- North of the Mandara Mountains evidence for settlement accelerates after 600 AD.
- For the Mandara Mountains themselves, evidence for any ancient settlement is peculiarly recalcitrant. MacEachern (in press) has a table summarising all the known radiocarbon dates and apart from the sites of Doulo Igzawa and Gréa Chefferie, which date from the first millennium BC, almost all other sites are less than a thousand years old.
- Afterwards there is an accelerating suite of dates leading to the earliest dates for the DGB complex no earlier than 1250 AD (cf. David 2008).
- All of this points strongly to the expansion and diversification of Chadic-speaking peoples during this period, and very little interaction with any pre-existing occupation. Only when they reach the Fali-speaking area do they encounter already-established populations of unknown antiquity.

Synthesis I

- ❖ a) Prior to 10,000 BP the region is occupied by highly diverse foragers, of which the Laal in Chad and Jalaa in Nigeria may be the only remaining survivals
- ❖ b) The greening of the Sahel at this period attracts westward expansion of Nilo-Saharan speakers associated with fisheries, hippo-hunting and pottery
- ❖ c) Saharan languages become established around Lake Chad and Songhay splits away and moves to the Niger Bend
- ❖ d) Gur-Adamawa languages move eastward, ca. 4-5000 bp, hunting large plains animals, but already familiar with dwarf cattle. They perhaps preceded by other Niger-Congo speakers, now represented only by the Fali.

Synthesis II

- ❖ e) Chadic speakers reach Lake Chad from the Nile Confluence as fishermen and herders ca. 45-4000 bp
- ❖ f) Central Chadic/Masa speakers expand southwards initially still as herders and fishermen 4-3000 bp, leaving some fishing populations behind in the core area
- ❖ g) They encounter a salient of Fali and Adamawa-speakers and split into two subgroups, the Masa spreading east to the plains and the western group begin the colonisation of the Mandara mountains, probably with the adoption of millet and sorghum cultivation
- ❖ h) Chadic and Adamawa speakers border one another, but between the two the Fali may have acted as a buffer, limiting cultural interchange

Synthesis III

- ❖ i) With the exception of the Tupuri, evidence for interaction Adamawa/Chadic is surprisingly limited. The archaeology suggests the Mandara mountains were only very sparsely inhabited until as late as 600 AD, and that the Central Chadic speakers spread into a largely unoccupied area.
- ❖ j) Shuwa Arabs arrive on shores of Lake Chad in the thirteenth century
- ❖ k) Fulbe herders arrive in the Lake Chad area in the eighteenth century but establish political hegemony in the nineteenth century following the jihad.
- ❖ l) Expansion of the Kanuri kingdom from the eighteenth century pushes Kanuri further south and isolates the Kotoko

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