## The Small B ★ NG

The Importance of Language Isolates to Understanding the Origins of Our Species

Abbie Hantgan-Sonko, Centre national de la recherche scientifique CNIS



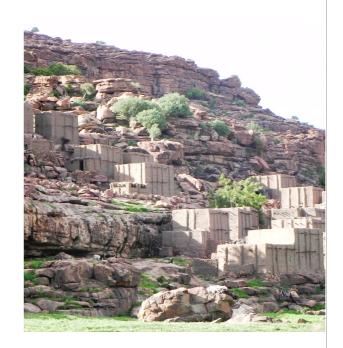
The Origins of the Small Bang

A hidden people and language



2

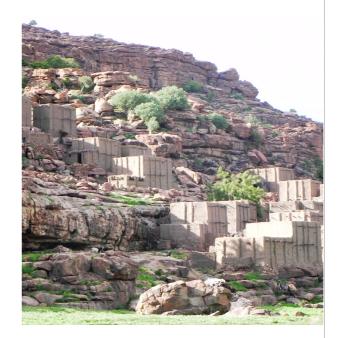
This goal of this presentation is to provide awareness of a 'secret' group of people whose language is very special in uncovering the hidden history of West Africa, the place from which we all, as humans, have come.



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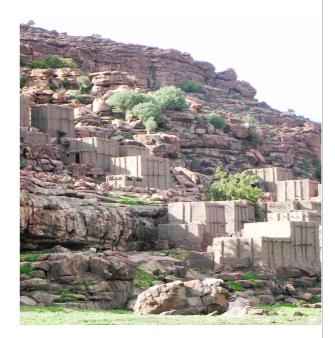
The name of the language which I have spent the last 15 years studying - including 7 years spent here at Indiana University - is *Bangime*, or *Bangije*. The language is an isolate, which means the people cannot communicate in their native language with any other peoples than their own. [CLICK] The name of their ethnicity is *Bangande*. [CLICK] The Bangande people live, as shown in the pictures, on the rocky slopes of a mountain range in Mali, an African country where the mythical city of Timbuktu is also located. The word for the Bangime language and Bangande people comes from neighboring Dogon [CLICK] languages who are the only other people living on this cliff. [CLICK] The word [bang] in these Dogon languages means something, 'hidden' or 'secret'.

Bangime (Isolate)



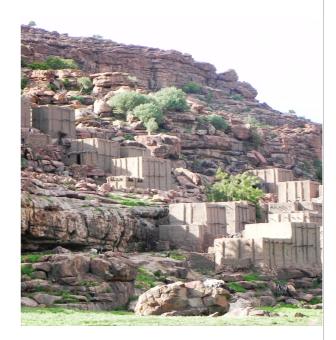
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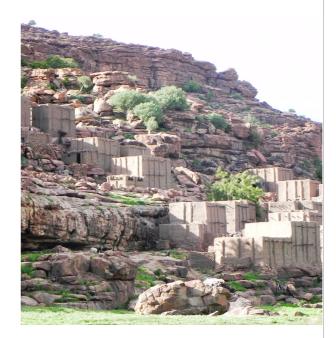


### What's in a name?

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[bàŋgà=ndέ] 'endonym for ethnicity (pl.)'



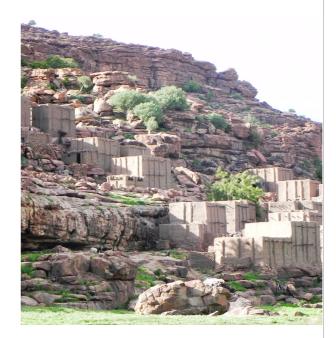
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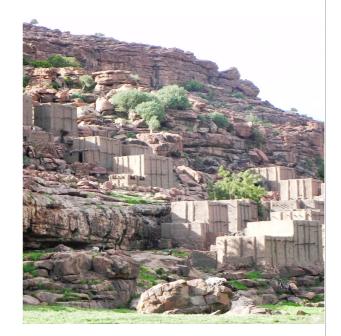
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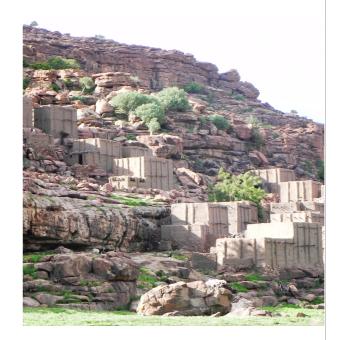
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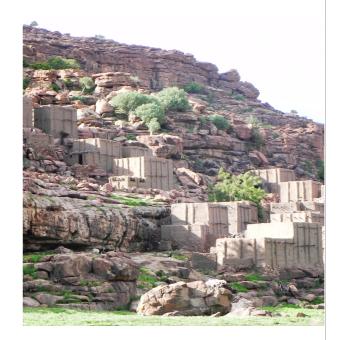
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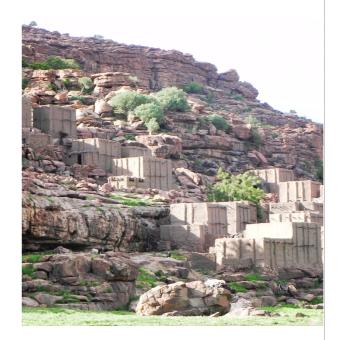
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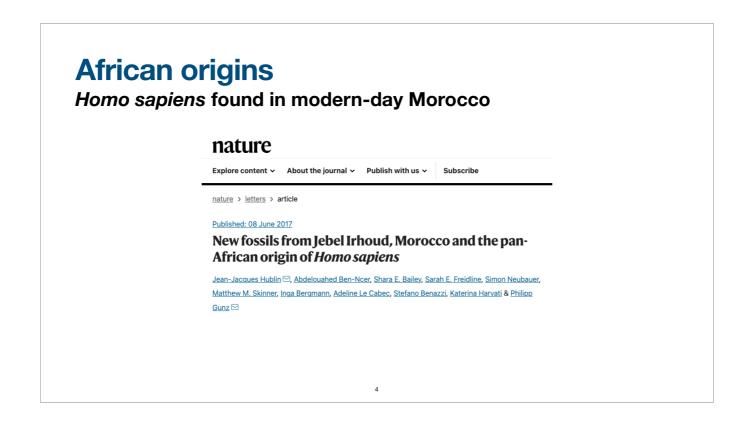
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[báŋ] 'hidden, furtive, secret'





Language is one of the features which makes our species so special. Furthermore, human language is inextricably tied to our origins. All of us come from Africa. 300,000 years ago, the earliest ever found evidence of Homo sapiens, from Morocco, in northwest Africa.

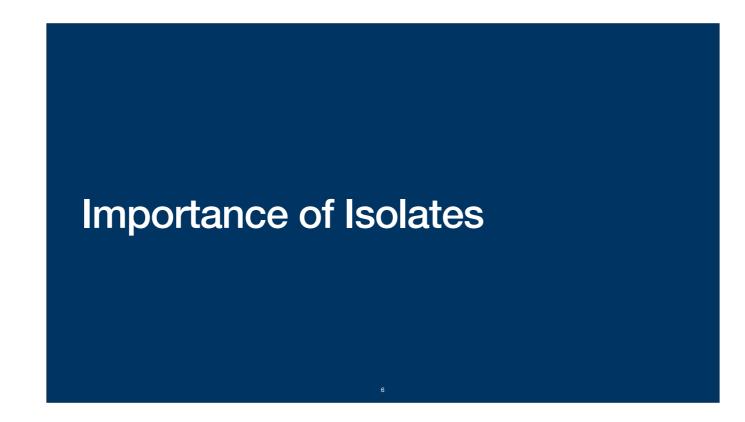


The cradle of modern humans lies just north of where the Bangande currently live. Furthermore, the earliest pottery, grains, and civilizations to emerge in Africa are all found [CLICK] where we also find the Bangande people. The importance of this area to our understanding of early human development and settlement of and beyond Africa lies in its mysteries.

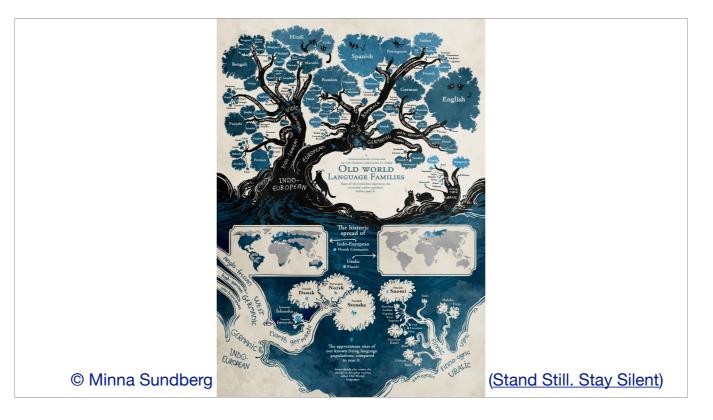
### **Origins of Human Development**

West African early human development sites

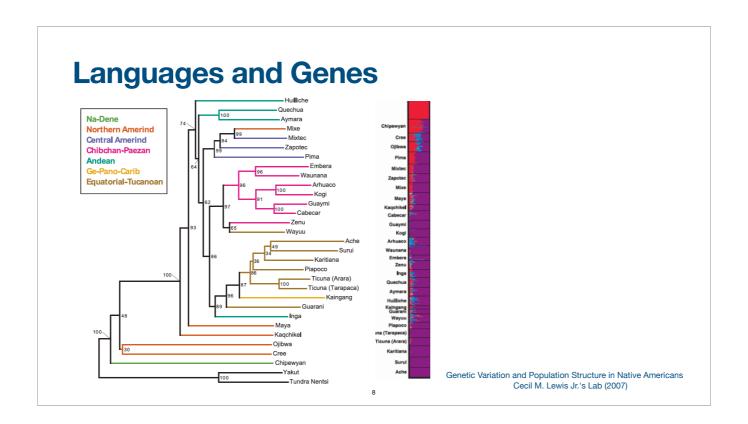




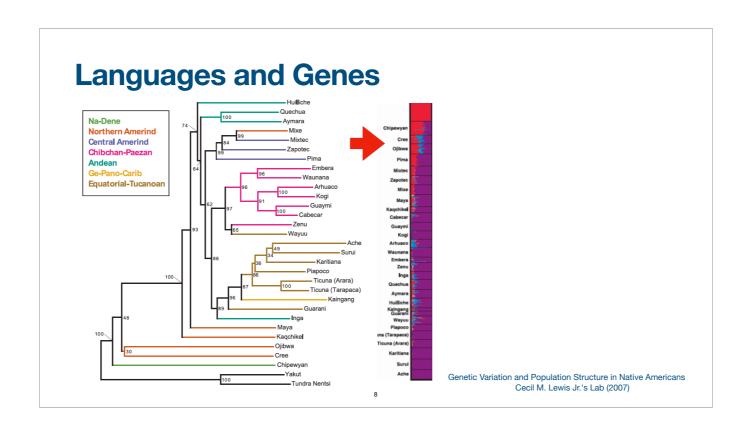
Language isolates - languages with no living relatives - otherwise known as language orphans - are an essential piece of the human history puzzle.

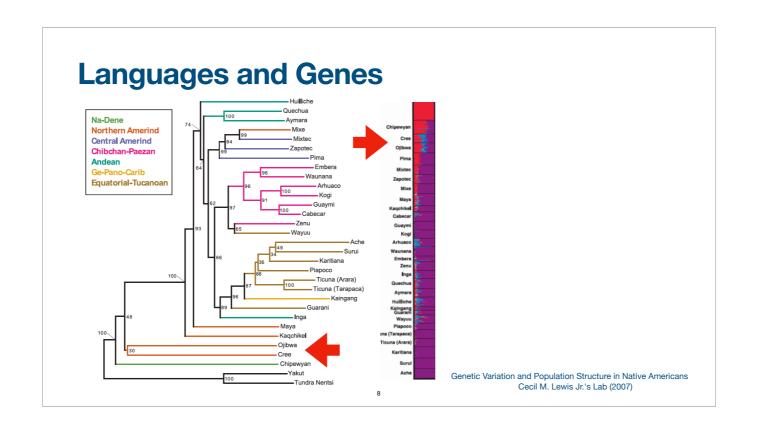


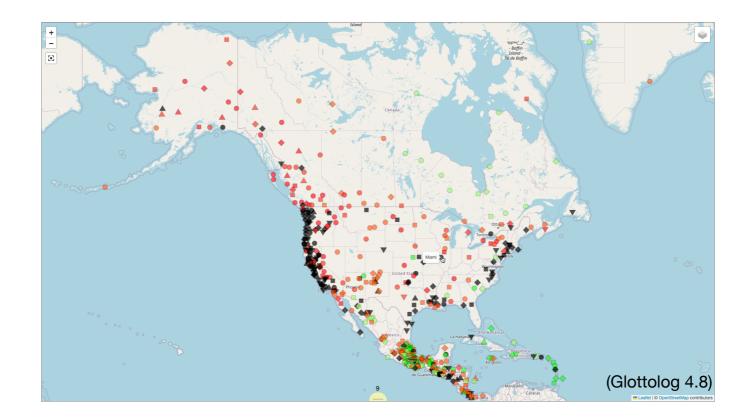
Related languages can be traced back to a common ancestor. We think of languages from the same family as branches and leaves on very large and old trees. Furthermore, studies find that most populations that speak languages of the same language family (i.e., that descend from the same ancestor language) are also genetically highly similar.



That is, when people speak a common language, or at least languages with common ancestors, their often also have human ancestors in common. For example, here we can see that the Cree and Ojibwa people share DNA [CLICK] as well as [CLICK] linguistic features.



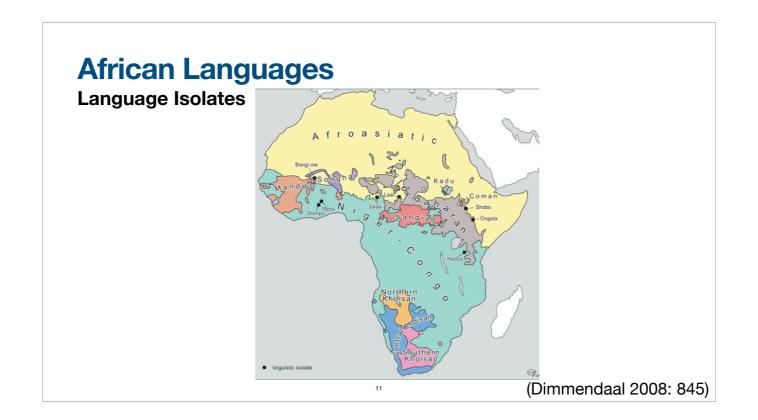




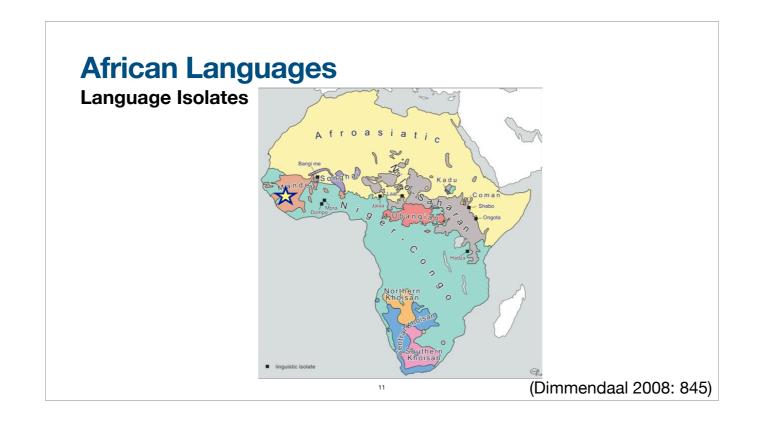
This map of North America shows languages that are - or were - spoken across the continent. Symbols in black are languages without any living speakers, green are those that have many speakers, the orange and red are those with few living speakers. The shapes refer to the level of documentation on the language. The home of the Miami is right here in Indiana. When all but one of the languages of a family disappear, that language represents an isolate.

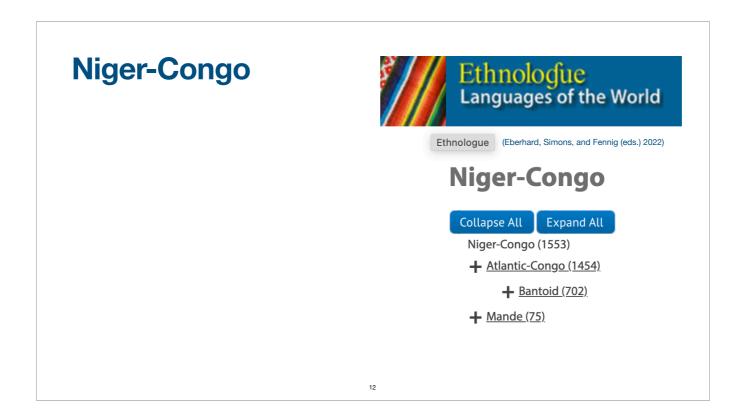
allada lealatae	Adai	Isolate	North America	
guage Isolates	Alsea-Yaquina	Isolate	North America	
	Atakapa	Isolate	North America	
	Beothuk	Isolate	North America	
	Cayuse	Isolate	North America	
	Chimariko	Isolate	North America	
	Chitimacha	Isolate	North America	
	Coahuilteco	Isolate	North America	
	Comecrudan	Isolate	North America	
	Cotoname	Isolate	North America	
	Cuitlatec	Isolate	North America	
	Esselen	Isolate	North America	
	Gualcurian	Isolate	North America	
	Karankawa	Isolate	North America	
	Karok	Isolate	North America	
	Klamath-Modoc	Isolate	North America	
	Kutenai	Isolate	North America	
	Maratino	Isolate	North America	
	Molale	Isolate	North America	
	Natchez	Isolate	North America	
	Salinan	Isolate	North America	
	Seri	Isolate	North America	
	Siuslaw	Isolate	North America	
	Takelma	Isolate	North America	
	Timucua	Isolate	North America	
	Tonkawa	Isolate	North America	
	Tunica	Isolate	North America	
	Washo	Isolate	North America	
	Yana	Isolate	North America	

Of the 81 language groups - or branches - represented on the North American continent, 31 are isolates. These families consist of only one member.



In contrast, in Africa, we find a mere half of the number represented here in North America - only 44 groups (or branches) and a mere 16 isolates! Even though Africa has the highest level of genetic diversity, and the remains of the oldest humans on earth, the very same peoples supposedly speak the most homogenous languages. How can this be when humanity is so old?





As with the spread of Indo-European languages across Europe and the Americas today, we believe the present state of homogeneity is due to (at least) two major expansions across the continent. The most widely known is that of the [CLICK] Bantu, but the other is of the [CLICK] Mande languages and peoples.

### Niger-Congo

• Bantu Expansion

Ethnologue Languages of the World

Ethnologue (Eberhard, Simons, and Fennig (eds.) 2022)

### **Niger-Congo**

Collapse All Expand All

Niger-Congo (1553)

- + Atlantic-Congo (1454)
  - + Bantoid (702)
- + Mande (75)

### Niger-Congo

• Mande Expansion (Brooks 1993)

• Bantu Expansion



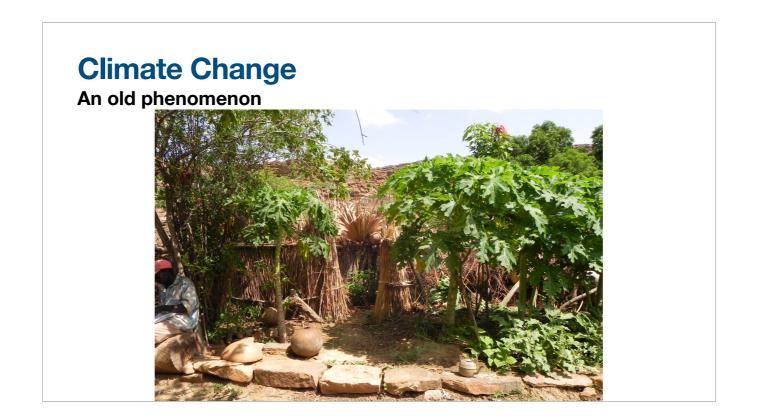
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Another factor in the spread of languages is climate change. Beginning around 10,000 years ago, the once 'wet' Sahara Desert began to dry out, such as to eventually become the world's third largest desert today. This climatic change caused people to shift their way of life, or to move. One huge change in lifestyle was from hunting and gathering to farming and domesticating plants and animals. With this change, peoples became settled, and spread out.

### **Spread of Languages**

**Decrease in linguistic diversity** 



Dogon Bronze Statue

14

As mentioned, beginning about 3,000 years ago, complex civilizations arose across West Africa and encompassed huge, prosperous empires. Thus, I believe that the Bangande - and their 'secret' language - are one of the last hold outs of linguistic diversity that once represented all of ancient Africa.



One of my main research questions is, 'What can language tell us about the development of human settlement patterns in Africa?'

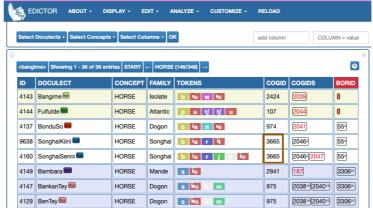


In order to answer that question, my first approach is to compare words for which we can link a person, animal, or object to known history. For example, evidence from rock art shows that horses have been in Africa for thousands of years but are not indigenous to Africa so we would expect the languages there not to have native words for the animal. On the right is an example of words for HORSE from languages across 5 language groups. In this example, a computer program has looked at these words and found which words are related to other languages in the same family [CLICK], and which are loans from unrelated languages [CLICK]. In this example, Bangime [PRONOUNCE bùwó] has a unique word that is not found to be related at any level to any other known language.

#### **Across disciplines**



Painted horse and rider, Ennedi Plateau, Chad. 2013,2034.6406
© TARA/David Coulson
https://africanrockart.britishmuseum.org/thematic/the-domesticated-horse



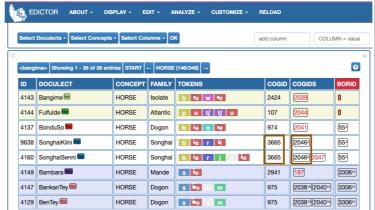
List, J.-M. (2021)

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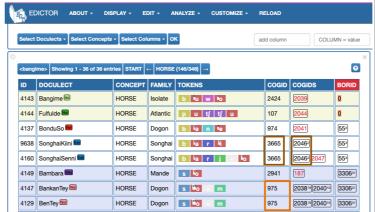
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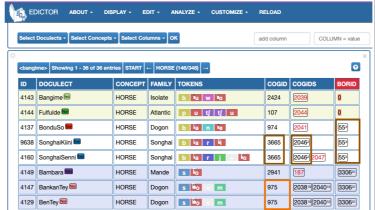
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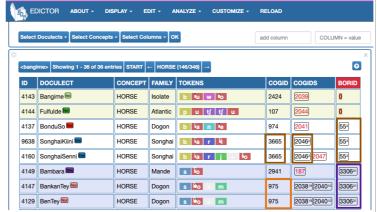
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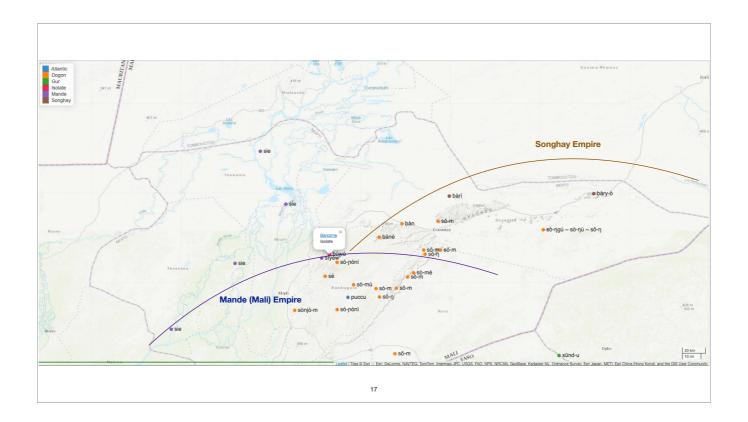


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List, J.-M. (2021)



The words which were found to be loans from languages outside of the family can be traced historically. The Dogon languages have two words for HORSE: one can be traced to [CLICK] Mande language-speaking horse-riding warriors during their Empire, and the other to [CLICK] Songhay warriors from the north during their Empire. Yet, we still do not know the origin of the word for HORSE in Bangime.

(Tse-tse fly belt - http://rpubs.com/AbbieHantgan/1088225)

#### **Semantic shifts**



Gloss	Language	Family	Source
horse	Bangime	Isolate	Hantgan et al. 2023
donkey	Jenaama	Mande	Heath 2022
donkey	Bandial	Atlantic	Hantgan 2018
horse	Ben Tey	Dogon	Heath et al. 2019
antelope	Senufo	Gur	Rongier 2003
horse	Bambara	Mande	Dumèstre 2011
	donkey donkey horse antelope	horse Bangime donkey Jenaama  donkey Bandial horse Ben Tey  antelope Senufo	horse Bangime Isolate donkey Jenaama Mande  donkey Bandial Atlantic horse Ben Tey Dogon  antelope Senufo Gur

By Linus Wolf - Own work, CC BY-SA 3.0, https://commons.wikimedia.org/w/index.php?curid=14842019 Data drawn from RefLex (Segerer G. and Flavier S. 2011-2023 https://reflex.cnrs.fr)

18

Wild donkeys, on the other hand, are found in Africa and are indigenous to the continent, as are antelope. Not only does the word for HORSE in Bangime [CLICK] resemble the word for DONKEY in Jenaama, a Mande language spoken by the Bangande neighbors, the exact same pairs are found between distantly spoken [CLICK] Atlantic languages found on the coast of West Africa and Dogon spoken in the interior of Mali. Furthermore, the word for [CLICK] antelope in another Malian language, Senufo, shows a word that is identical to the word for horse in the widespread Mande language, Bambara. As to the origins of horse/donkey in Bangime and the Mande language Jenaama, we actually can trace these to an ancient form \*pùmbó which means 'antelope' in Proto-Bantu, a language which was likely spoken some 5,000 years before present.

#### Semantic shifts



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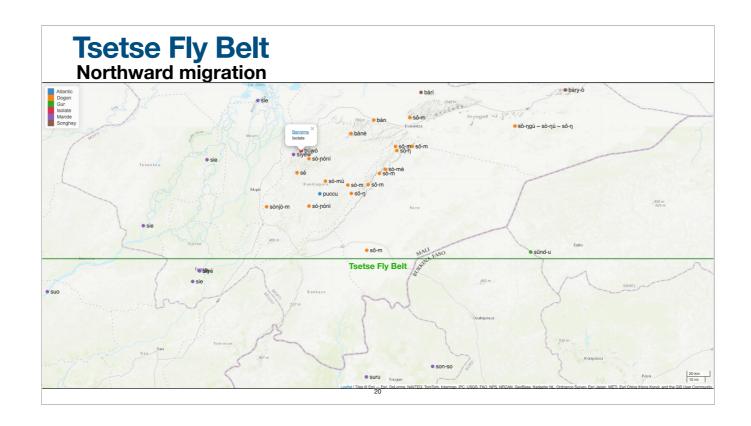
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\*pùmbó 'antelope' Proto-Bantu



These patterns of using a word for an animal based on another word for a native animal is interesting to us because in other parts of Africa, such as in Tanzania in East Africa, nearly all the languages there use a word that is clearly borrowed from Arabic, faras (فرس) meaning "horse" (mare). This is quite reasonable as, indeed, horses in Africa were first brought from the Arab peninsula just to the north of this region. Still, the question remains open as to why the Bandiagara Escarpment languages are so diverse and why they have resisted the wide-spread Arab loan?

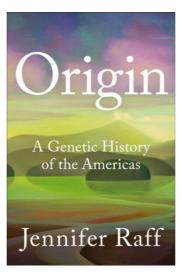


Presumably Proto-Mande and Proto-Dogon speakers did not encounter Arabian horses. Or, if they did, they may not yet have been conversant enough in Arabic to incorporate the word for horse from Arabic as faras into their languages, or, they did not live in areas where horses survived - the north, and thus did not have contact with Arabs. Instead, they used words from their own native vocabularies to describe these foreign animals. A reason that latitude is so crucial to understanding language in this context is due to the tsetse fly (Glossina sp.). Horses, like other animals and humans, cannot survive African trypanosomiasis, a sickness transmitted by tsetse flies. The tsetse fly belt currently lies at 14°N (Steverding 2008) but descended over time with the increasing aridity of the Sahara (Brooks 1986). Dogon speakers who ride horses today live just above the tsetse belt, but Proto-Mande speakers, according to Vydrin (2009b, 2016), occupied an area at least slightly further north and west. Thus, Proto-Mande speakers must have travelled south before horses were brought to West Africa. Both Proto Mande and Proto Dogon speakers may have settled in their current locations prior to the increase in aridity and later incorporated horses into their respective cultures and languages from peoples living at higher latitudes.

# Conclusion and Future Outlook



**Ancestral origins** 



22

Just last year, a colleague for whom I have the utmost esteem published a ground-breaking and very accessible book shattering long-held myths concerning the origins of the first peoples to settle the American continents. She succeeds in re-telling the story from Indigenous people's points of views as well as the scientific community, and goes on to illustrate that the first 'Americans' may have come here a full fifteen thousand years earlier than once thought. She bases here arguments on ancient DNA, linguistics, archeology, and oral histories.



For the Small Bang, we are just embarking on this new adventure. It is our first and foremost intention to honor the Bangande, and especially those that came before them whose voices are no longer heard. In this respect, and aspect of our research, we welcome any and all input and advice on how to honor the secrets of the Bangande while satiating their curiosity to uncover their hidden past.

# gànà nárá! Thank you!



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