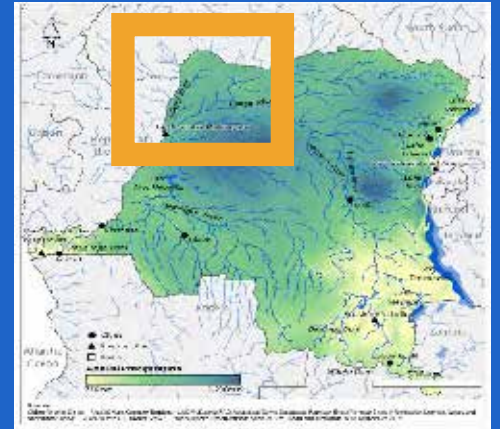




THE LEXICON AND PHONOLOGY OF FULU

INSIGHTS INTO THE POPULATION HISTORY OF A SMALL-SCALE CENTRAL
SUDANIC LANGUAGE SPOKEN IN NORTHWESTERN DRC

Sara Pacchiarotti and Paulin Baraka Bose

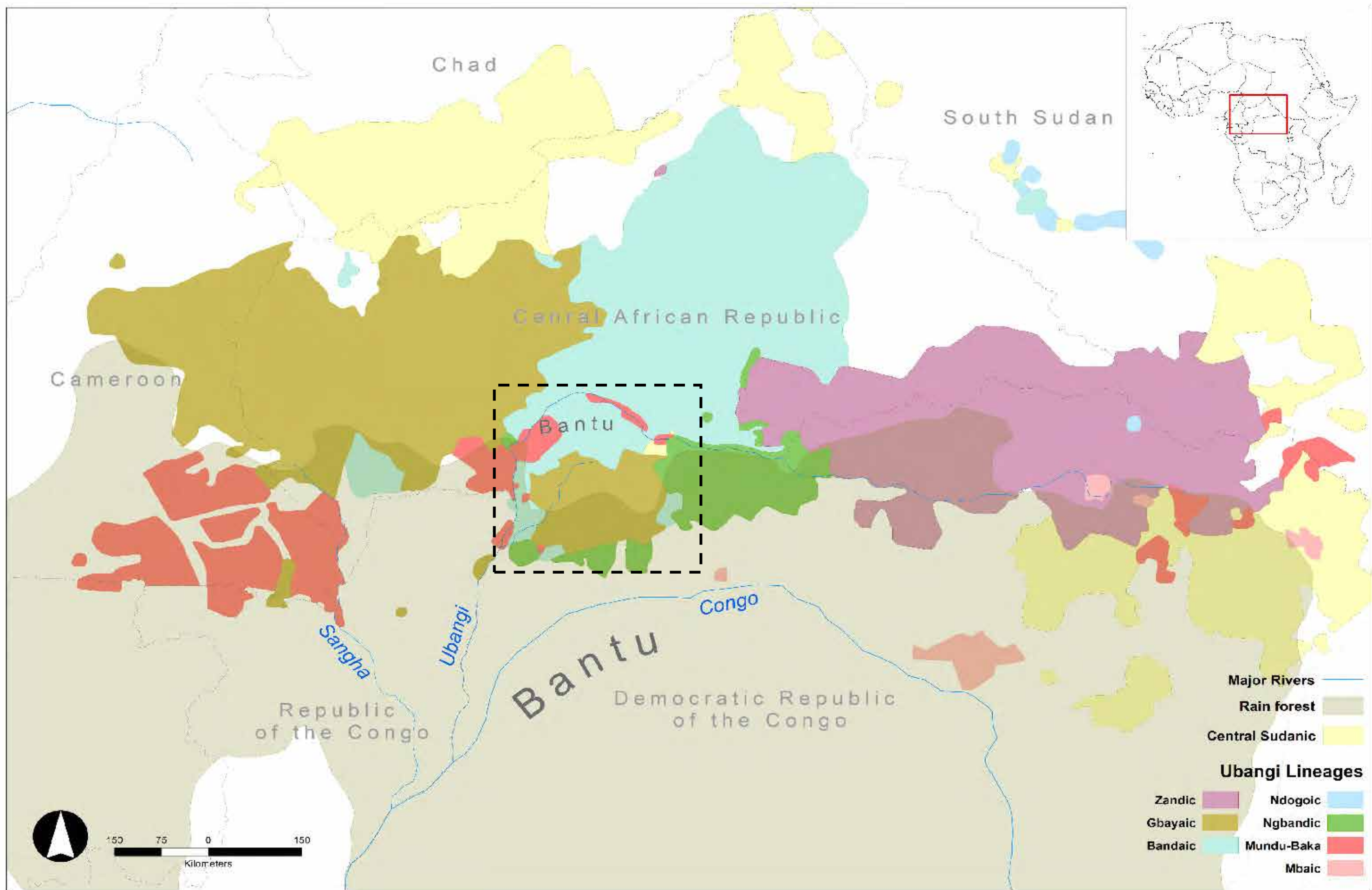
4th Meeting of the Princeton Phonology Forum (PφF 2025), April 18-19, 2025

OBJECTIVES OF THIS TALK

- First-hand fieldwork data on Fulu, an undocumented Sara-Bongo-Bagirmi (SBB, Central Sudanic) language spoken in NW DRC (and SE CAR under the name of Bagiro, see Boyeldieu 2000)
- Sociolinguistic situation of Fulu
- Phonological features within a Macro-Sudan Belt context
- Shared and innovative sound changes
- Borrowings: what do they tell us about the migration history of Fulu?

THE CONGUBANGI PROJECT

- 5-year interdisciplinary project funded by an ERC Starting Grant (# 101116562)
- Starting date: January 1 2024
- To date:
 - multiple linguistic fieldwork missions in DRC/CAR on Ubangi, Central Sudanic, and Bantu languages, including a major phonetic documentation mission (aerodynamics and articulation of implosives and labial-velar stops in these three groups)
 - multiple archaeological fieldwork missions in DRC and CAR
 - collection of genetic data through saliva samples in DRC and CAR.



- Not a refugial area
- Pervasive multidirectional language shift
- Shift-resistant enclave communities
- Deep occupation history (4500 BP)

Adapted from Güldemann (2018)

TEAM

Archaeology



Dr. Peter Coutros Lucien Pierre Nguerede

Linguistics



Paulin Baraka Bose Chrisnah R. Mfouhou

Genetics



Prof. Dr. Carina Schlebusch & team



Henri Zana

Local collaborators DRC/CAR



Prof. Igor Matonda



Prof. JP Donzo

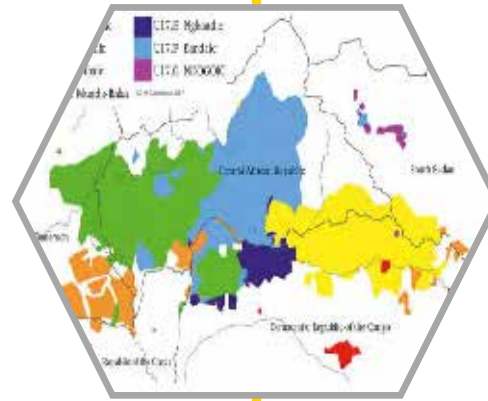


PRESENT

Archaeology



Linguistics



Genetics

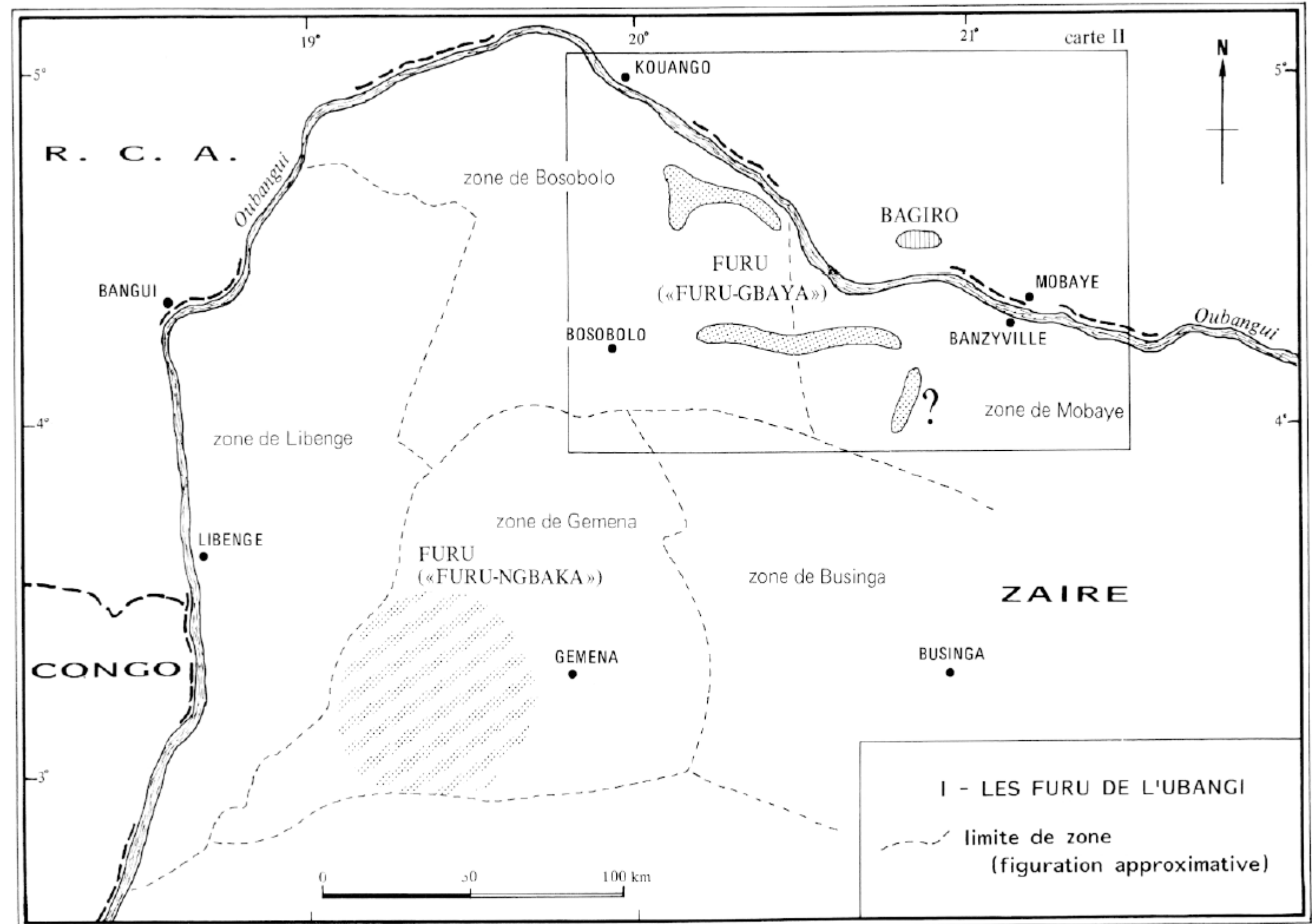


CongUbangi

PAST

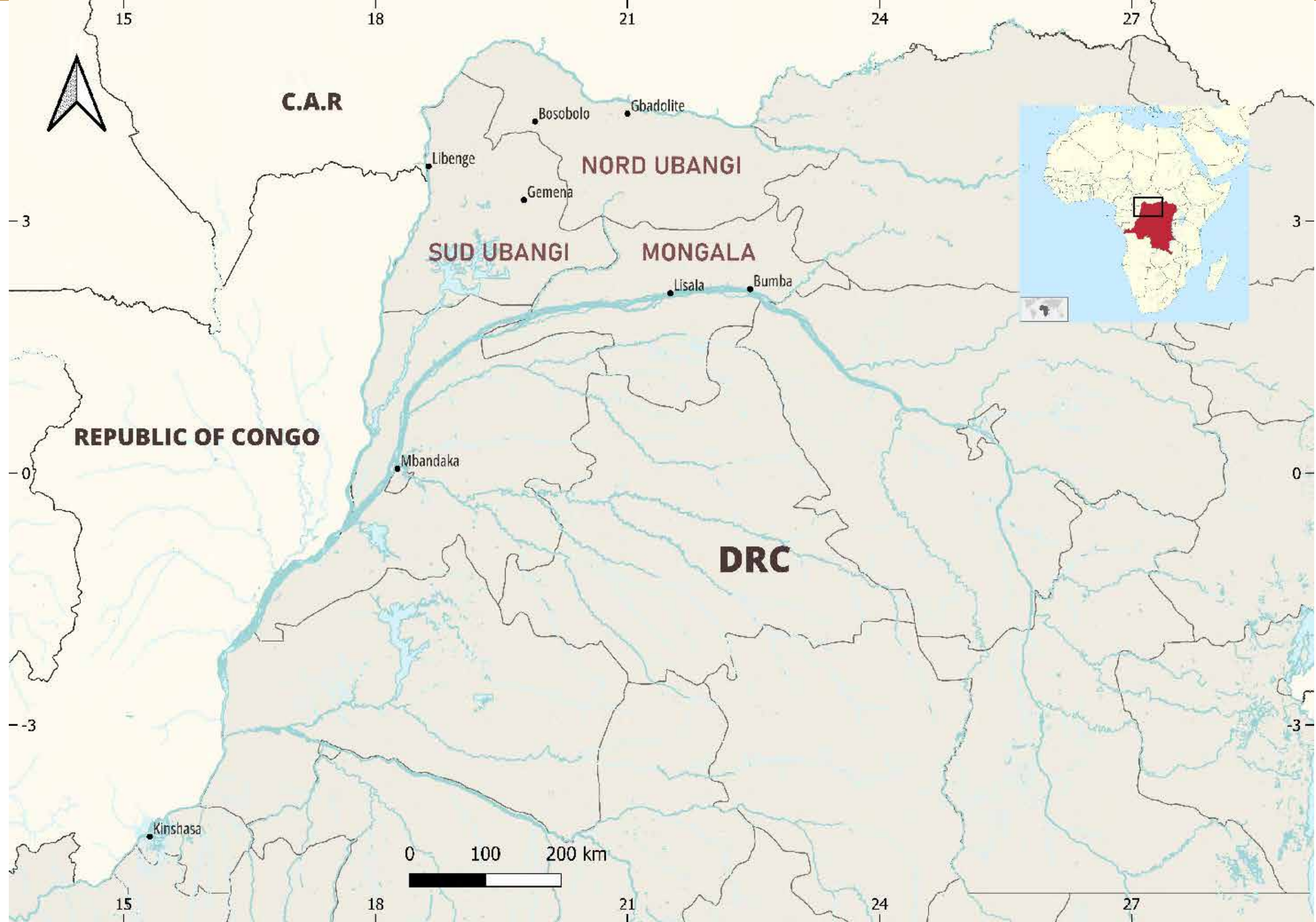
WHY FULU?

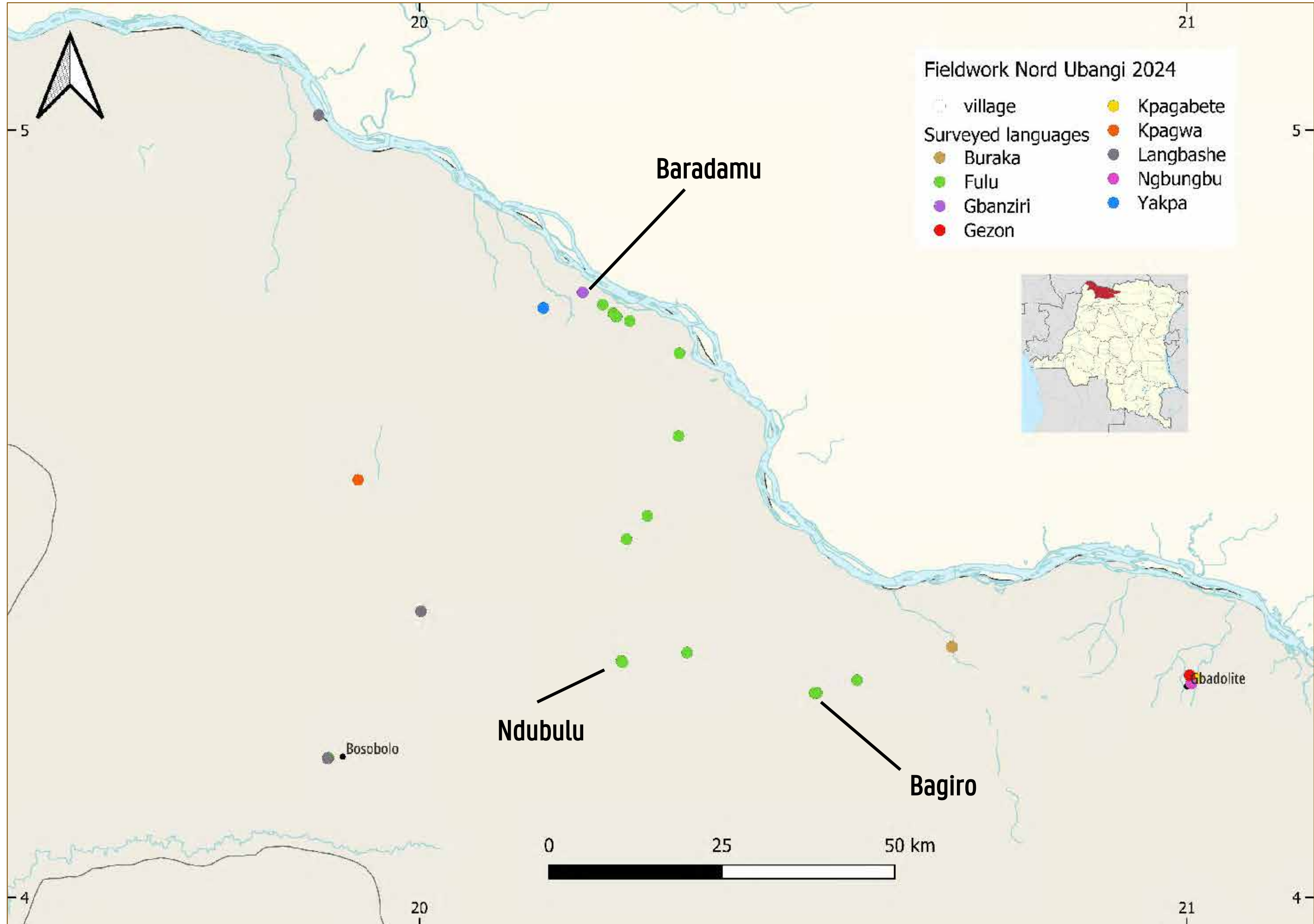
- Two groups with same ethnonym (gbāyā/fūrū gbāyā) found in DRC and CAR: who went where (and when)?
- Allegedly the same language as Bagiro spoken in CAR (Mortier 1941, Tanghe 1945, Boyeldieu 1990: 93) but evidence consists of an **80-item wordlist** (Mortier 1941) and some sentences contained in Hulstaert (1950).
- Close contact with several Ubangi groups & Bantu (shift ongoing)
- What do shared and unique contact features tell us about the history of these two groups?



©Boyeldieu 1990: 78















SOCIOLINGUISTIC SITUATION IN DRC

- Population: **5,000** in 1940s (Tanghe 1945); **12,000** in 1980s (Fultz & Morgan 1986); **33,185** in 2023 (unofficial census)
- Main activities: fishing, hunting; farming (kālāngā ‘cassava’ and fōkō ‘corn’).
- Alternative ethnonyms: Gbaya, also known as Fulu-Gbaya or sometimes **Gbagilo** (cf. **Bagiro** in C.A.R)
- Groupements*: Fulu-only, Fulu-Mbanza (Bandaic), Fulu-Kpala (Mundu-Baka)
- Fulu Bagilo more conservative than Fulu Ndubulu

UPPEMENT-FULU-NDUBULU
F.KPAWE-MANGABE

RECAPITULATIF

TABLEAU DE
DU 31/12/20

CHIEF DES VILLAGES	MILIEU-COUTUMIER					HORS-MILIEU			HORS-MILIEU		
	HMS	FMS	GARS	PLS	TOTAL	HRC	FRC	TOTAL	HMS	FMS	GARS
LA ZONGALA	247	255	348	255	1105	124	39	163			
IGÉ SAINDA	142	150	235	239	766	57	17	74			
I MALINDA	105	120	166	174	565	32	11	43			
R MANGONDA	229	237	361	366	1193	95	12	107			
1 NGABA	134	138	216	220	708	53	13	66			
LOT LIBALA	273	264	384	383	1304	125	50	175			
ANGI GBAVIKI	226	230	382	371	1209	128	29	157			
KINGI	49	57	116	219	441	34	10	44			
LI TIBA	176	186	247	252	861	97	14	111			
GO MEATEBA	171	185	259	260	875	77	21	98			
DA GBANGABALI	94	101	138	151	484	56	15	71			
S BOGBADU	181	186	271	276	914	106	14	120			
ED NDANEZEKA	184	198	334	343	1059	104	12	116			
ET SAUGAYAMBA	74	86	144	142	446	62	9	71			
LE NGIAMA	107	113	223	235	678	86	13	99			
SE GBAMUWA	191	211	342	343	1087	95	19	114			
SAMBOKO	98	104	175	178	555	77	9	86			
KPALATIO	45	102	176	180	503	44	20	64			
YALINGA	38	41	104	110	293	13	10	23			
WA MOKASI	59	69	145	148	421	42	9	51			
	107	124	201	199	631	90	7	97			
MILIEU-COUTUMIER	2530	3157	4967	5044	16098	1597	353	1950	440	463	1102
S-MILIEU-COUT.	440	463	1102	1203	3208	417	108	525			
GENERAL	3370	3620	6069	6247	19306	2014	461	2475			

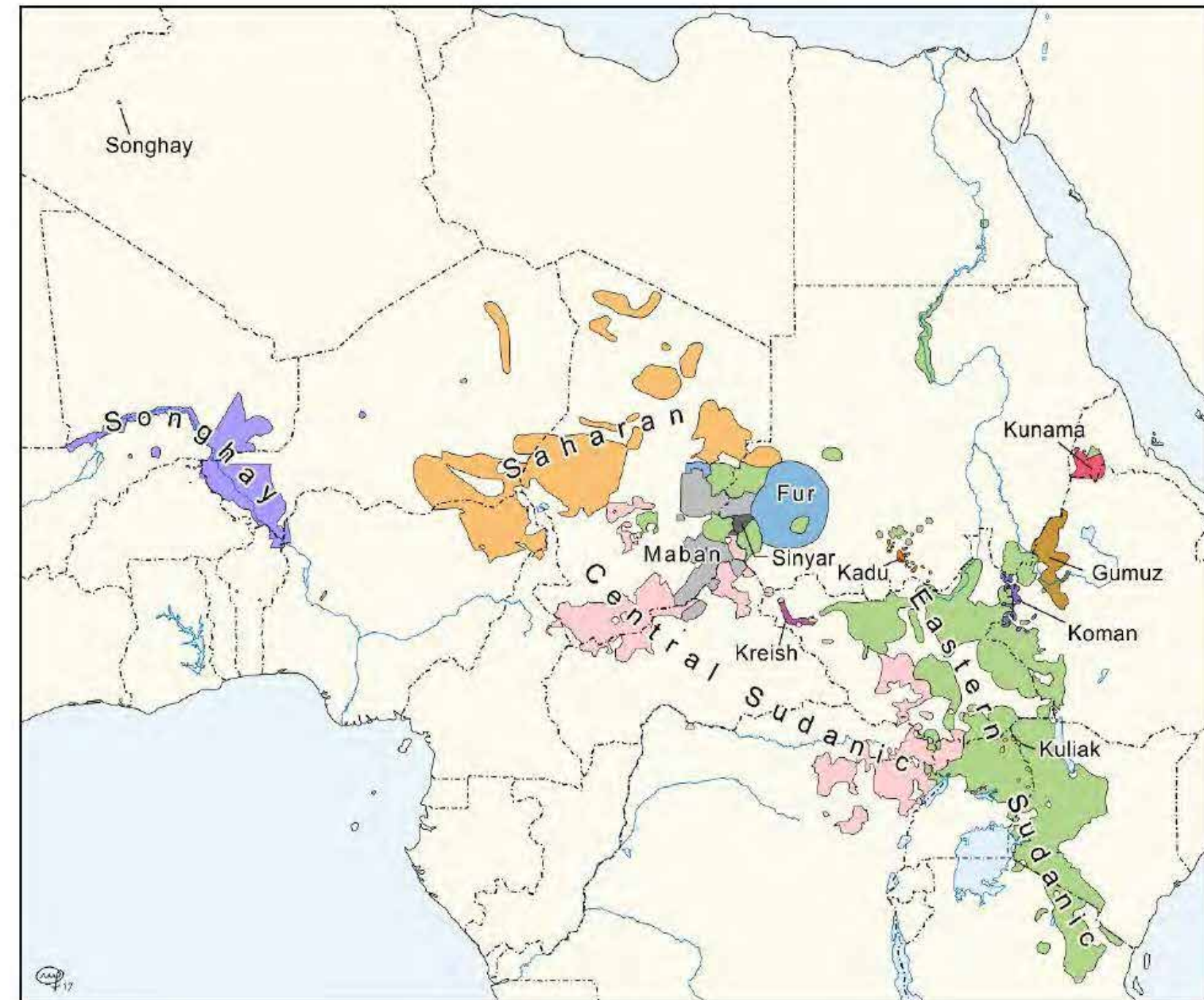
- Multilingualism: Lingala, Gbanziri, Sango, French
- Positive attitude toward Fulu (especially in rural areas)
- Intermarriage with Gbanziri (Mundu-Baka), Ngbaka Minagende (Gbayaic), Ngombe (Bantu) > often Lingala as home language
- Language shift to Gbanziri (Mundu-Baka) (in Baradamu) and Ngbaka (Gbayaic) (in Gemena)
- Young Fulu in urban settings shift to Lingala
- Oral tradition: They crossed from Sudan into DRC and first settled in Libo (2.30, 27.72) (Haut-Uele province). They believe Sara (Sara-Bongo-Bagirmi > SBB) is close to their language
- Cf. their endonym 'gbāyā' (alternative name for Kresh, a CS language spoken in South Darfur, Sudan).



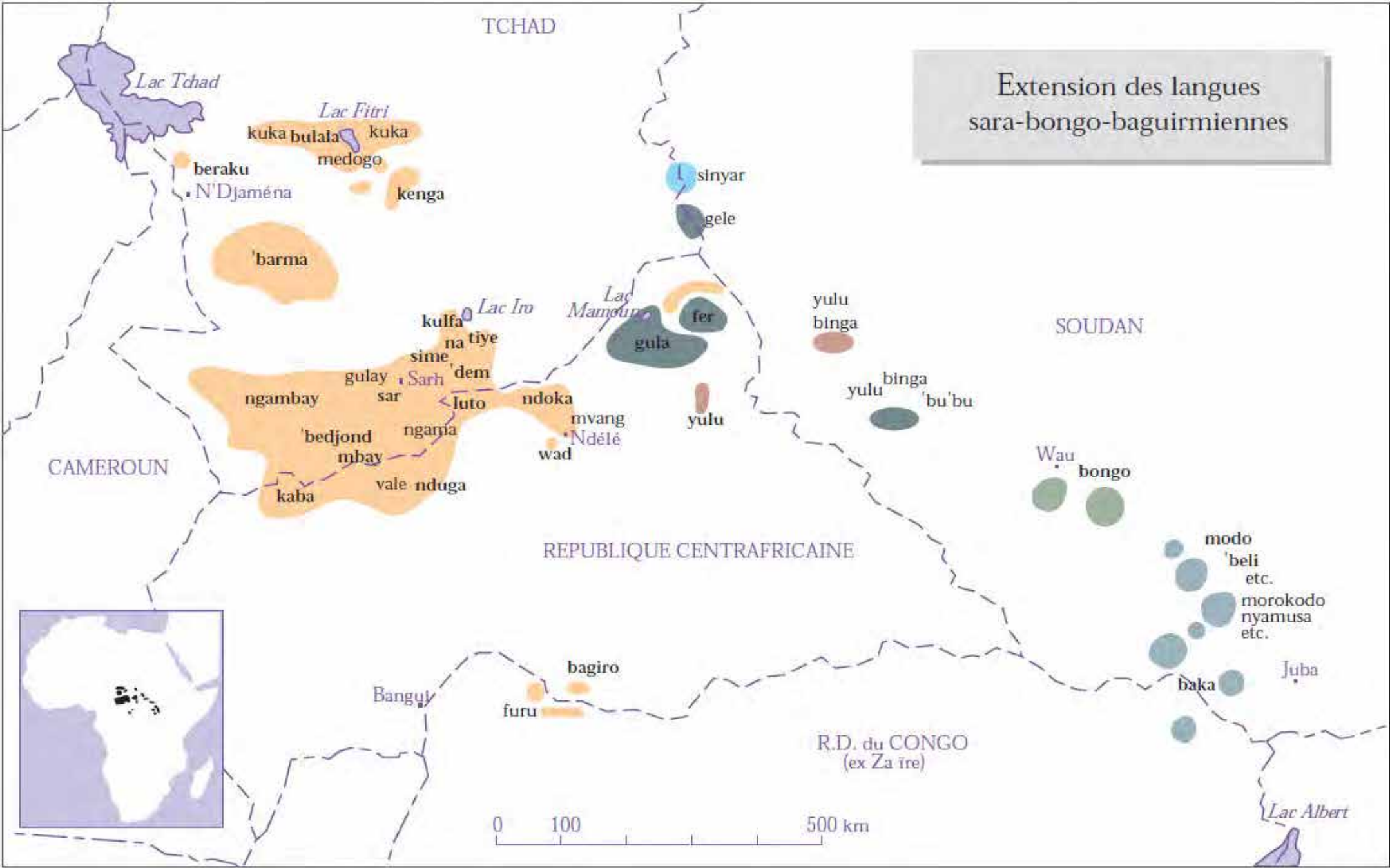
CENTRAL SUDANIC

- Affiliation of Central Sudanic (CS) to Nilo-Saharan not yet proven (see, e.g., Boyeldieu 2011, Güldemann 2018: 294-309)
- Two main branches: Western (WCS) and Eastern (ECS).
- Highly diverse geographically close languages: more work needed (Boyeldieu 2020) to establish internal genealogical unity of CS
- Sharp typological contrast between ECS and WCS
- WCS heavily reshaped by contact with Ubangi
- SBB (WCS): largest, most diversified CS subgroup; best established genealogical subunit

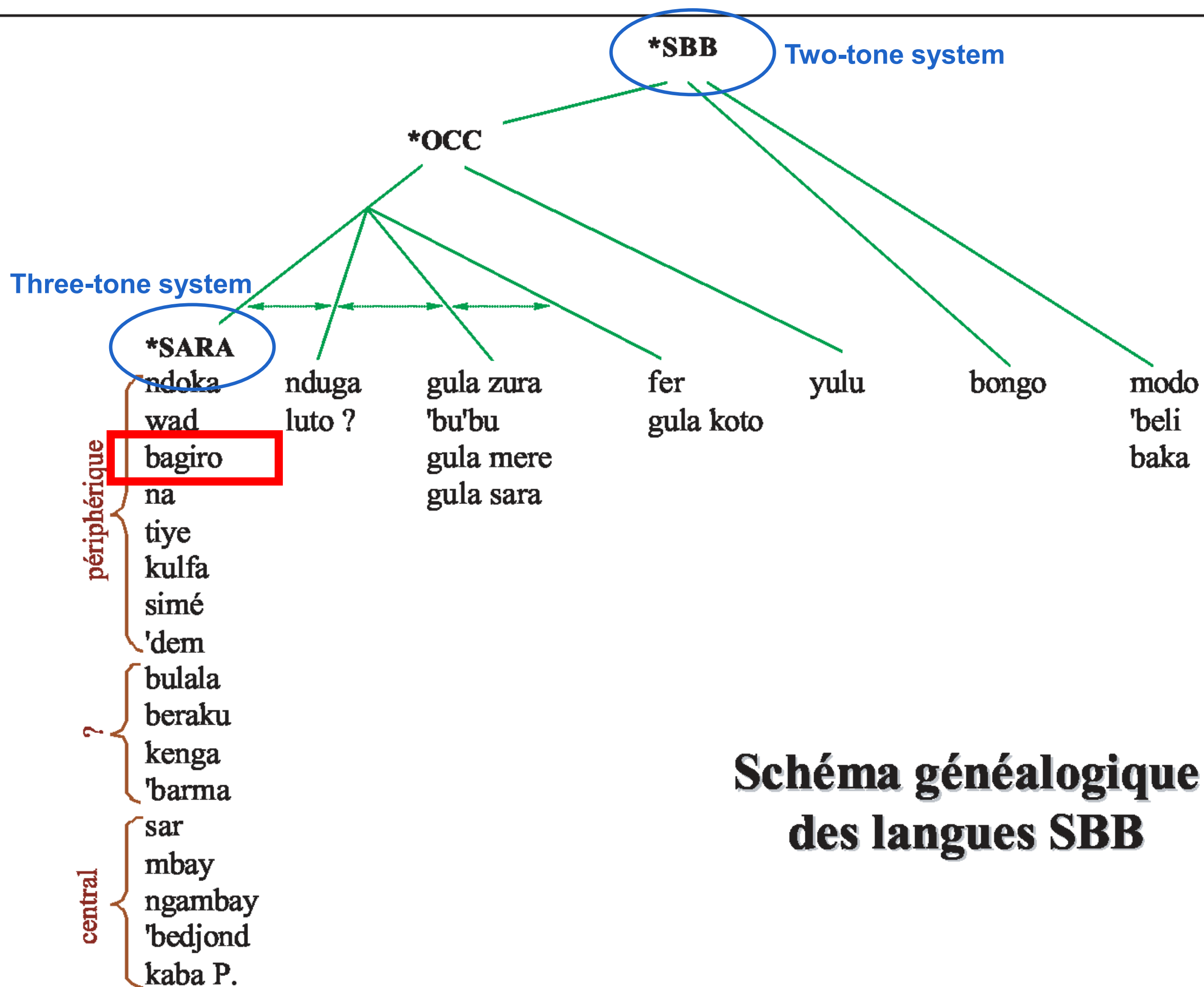
Nilo-Saharan (© Dimmendaal et al. 2019)



SARA-BONGO-BAGIRMI WITHIN CENTRAL SUDANIC

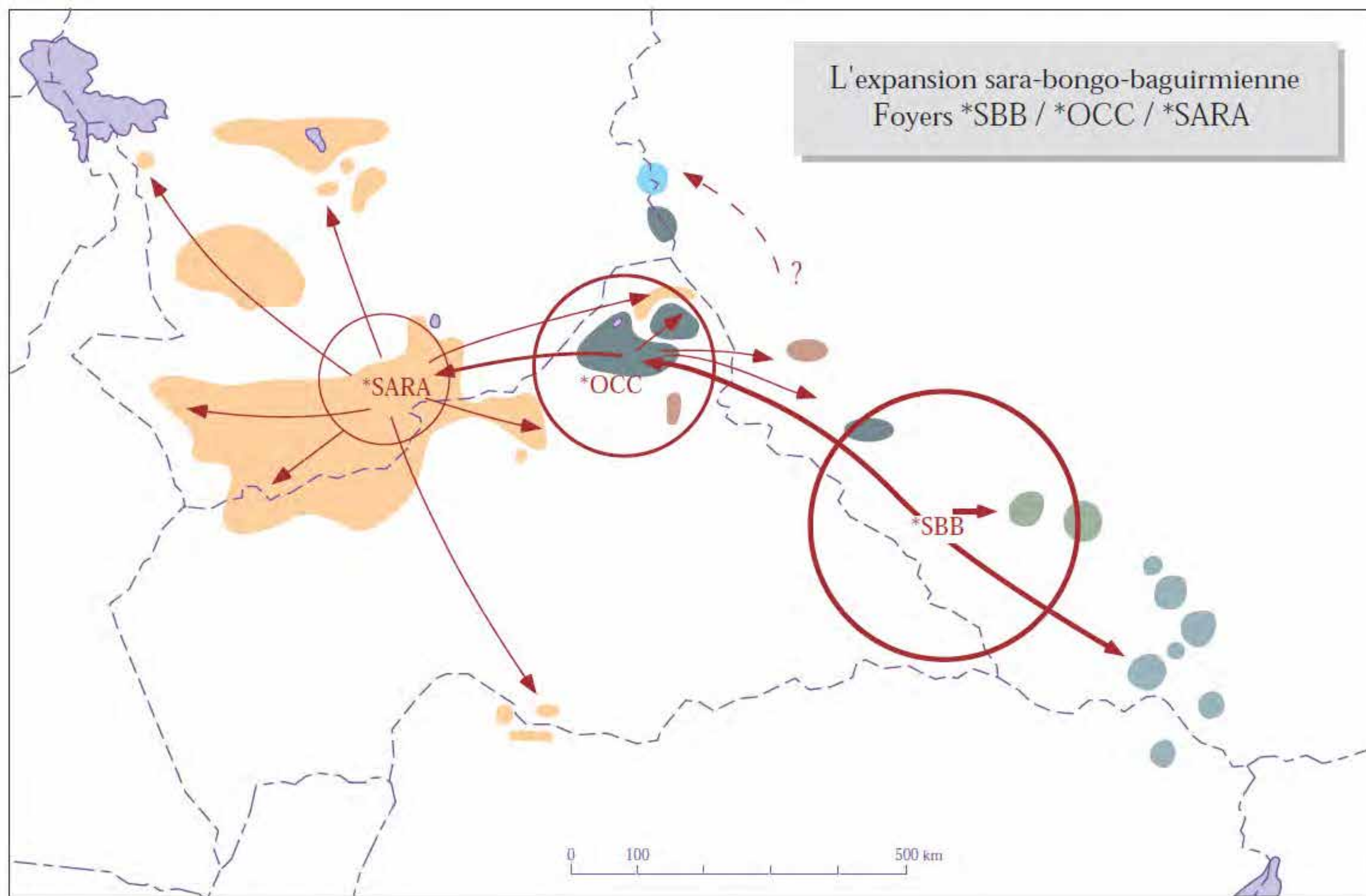


(© Boyeldieu 2006)



- Historical classification based on tonal and lexical innovations (Boyeldieu 2000)
- *SARA: late diversification
- ~ 850 *SBB comparative series (Boyeldieu et al. 2006)

L'expansion sara-bongo-baguirmiennne
Foyers *SBB / *OCC / *SARA



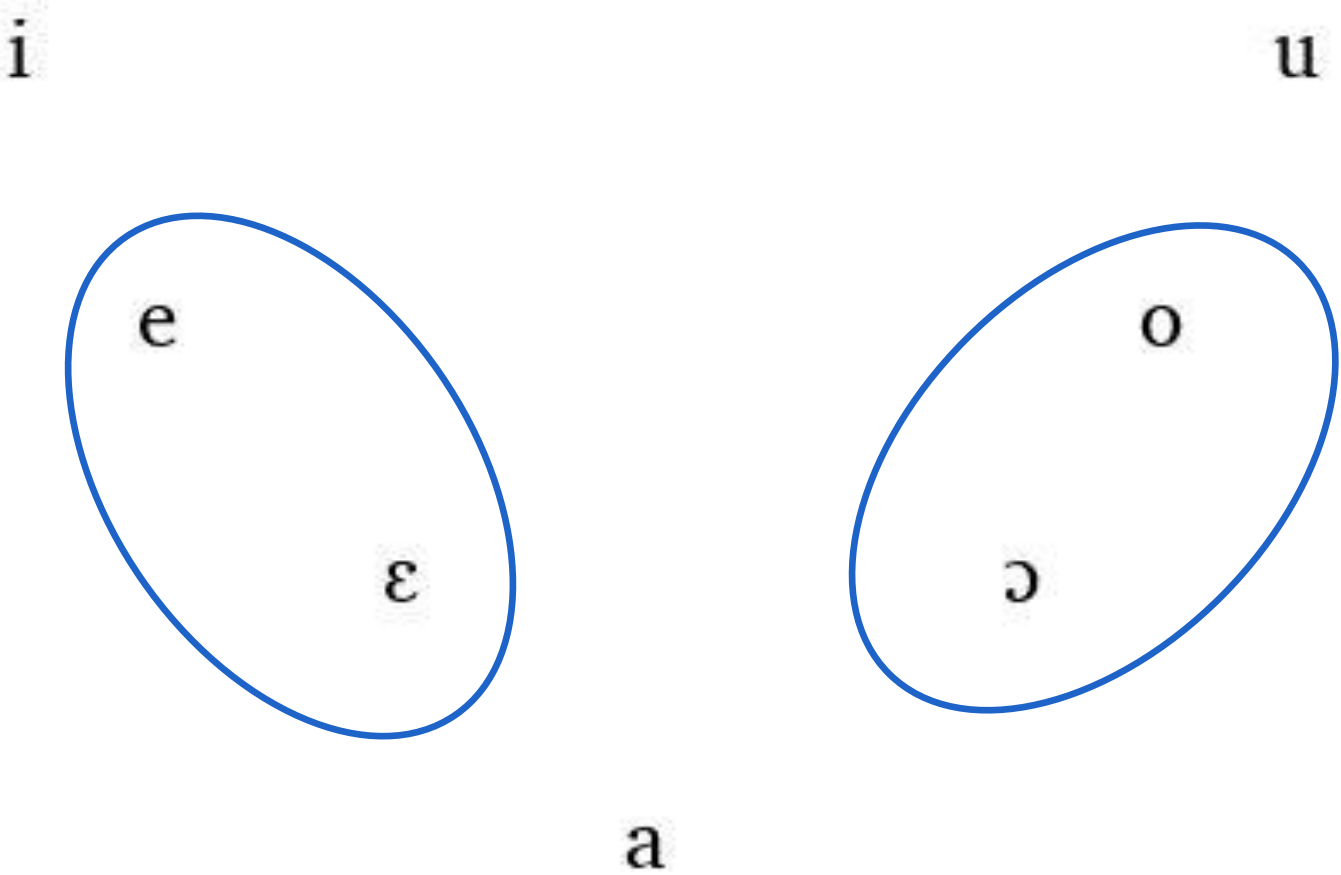
SARA VS. BONGO-BAGIRMI

Feature (Dimmendaal et al. 2019)	SARA	BONGO-BAGIRMI (and other ECS)
ATR harmony	absent	significant
Contrastive nasal vowels /ẽ/, /ã/, /õ/	very common	absent
vowel inventory	6-vowels (often lacking /ɛ/ as a counterpart to /ɔ/)	10-vowels
Tone contrasts	Three	Mostly two
Fricatives	Only /s/	Rich inventory

FULU PHONOLOGY: A TYPICAL NIGER-CONGO LANGUAGE OF THE MACRO-SUDAN BELT

VOWEL INVENTORY

ORAL



<i>e/ɛ</i>	<i>dè.è</i> <i>dɛ.ɛ</i>	‘come!’ ‘person’
<i>o/ɔ</i>	<i>zò</i> <i>zɔ</i>	‘two’ ‘head’

NASAL

ĩ, ã, ẽ, ẽ̃, ã̃, ẽ̃̃, õ, ũ

Not predictable, low functional load

Two sources

Borrowings

ĩ ‘minor, little’ < Mbanza (Banda) ẽĩ
‘little’

Phonological innovation

Proto-SBB *taŋmɔ ‘caterpillar’ > Furu táĩ̃

Proto-SBB *KaRŋmɔ ‘fly’ > Furu kàĩ̃

CO-OCCURRENCE RESTRICTIONS & IDENTITY

	$\#[C]_{[C]i\#}$	$\#[C]_{[C]u\#}$	$\#[C]_{[C]e\#}$	$\#[C]_{[C]o\#}$	$\#[C]_{[C]\epsilon\#}$	$\#[C]_{[C]o\#}$	$\#[C]_{[C]a\#}$
i	23	3	1	0	0	1	11
u	22	43	1	0	2	0	19
e	2	2	7	2	0	0	2
o	2	1	3	10	2	0	8
ϵ	2	0	0	0	35	1	1
ɔ	0	0	0	0	16	51	0
a	38	9	7	5	17	13	80

Based on a database of 850 lexical entries

CONSONANT INVENTORY

	Bi-labial		Labio-dental	Alveolar		Post-alveolar	Palatal	Velar	Labial-Velar	
Implosive		ɓ			ɗ					
Stop	p	b		t	d			k	g	kp gb
PreN stop		mb			nd				ŋg	ŋgb
PreN fricative					nz					
PreN affricate						ndʒ				
Fricative			f	v	s	z				
Affricate						tʃ	dʒ			
Nasal		m			n		ɲ			
Trill					r					
Lateral					l					
Approximant							j			w

ɓ/b	ɓó bó	‘clan’ ‘craving’
ɗ/d	gbàɗà gbàdà	‘gecko’ ‘hunting net’
kp/gb	kò-kpó kò-gbó	‘to target’ ‘to laugh’

- No stem initial prominence: all C can occur in C1 and C2 position in C₁V₁C₂V₂ noun and verb stems
- Some evidence for voicing agreement parasitic on identity in place of articulation (as described for Ngbaka Minagende (Gbayaic), see e.g., Hansson 2001, 2004):

HOMORGANIC

bò**b**é 'town' **bò**p**é

gù**g**é 'local beer' **gù**k**é

HETERORGANIC

bùkú 'ashes'

gùtú 'behind'

SYLLABLE & WORD STRUCTURE

	NOUN STEMS	VERB STEMS
V	—	3
CV	34	86
CGV	5	15
V.CV	3	—
CV.CV	365 (13 CV.RED)	100
CGV.CV	2	1
CV.CGV	6	—
CV.CV.CV	53	10
V.CV.CV	5	—
CV.CV.CV.CV	11	—

TONE

- Three-way tone contrast: H, M, L
- High functional load both lexically and grammatically

HL/LH	kátà ‘salt’	LM/LH	filī ‘termite’
	kàtá ‘earth pot’		filí ‘hearth’
HH/LL	májá ‘spirit’	LL/MM/HH/LH	kòsò ‘pig’
	màjà ‘thigh’		kōsō ‘squash’
HH/LH	mára ‘ethnic group’		kósó ‘stone’
	màrá ‘sort, type, kind’		kòsó ‘to fall’
HL/MM	kídù ‘walking stick’		
	kīdū ‘Ophicephalus obscurus (fish)’		
HH/MM	bébé ‘village’		
	bēbē ‘mushroom’		
LM/MM	bùrū ‘dirt’		
	būrū ‘Ficus platyphylla (bot.)’		

Niger-Congo feature (Hyman et al. 2019)	Furu & Bagiro	Ubangi groups
open syllables	√	√
mono/disyllabic words (isolating)	√	√
stem-initial prominence	–	–
labial-velar stops	√	√
implosives	√	√
7 oral vowels with 2 sets of mid-vowels	√	√
ATR harmony	–	–
vowel co-occurrence restrictions	√	√
identical vowels in roots	√	√
three-tone heights	√	√

SHARED AND INDEPENDENT PHONOLOGICAL INNOVATIONS

MERGERS

	Proto-SBB	Furu	Bagiro
C1/C2 *ɭ > ɭ	*ɭugu ‘burn’	ɭùgú	ɭūgū
	*ɓàɭī ‘slave’	ɓáɭī	ɓàɭē
	*ŋgàɭù ‘tortoise’	ŋgáɭù	ŋgàɭù
C2 *ɭ > ɭ	*aɭa ‘swim’	ɭá	àɭà
	*Saɭi ‘bird’	jàɭí	yàɭī
C2 *t > t	*kàtā ‘salt’	kátā	kātā
	*atī ‘sneeze’	tì	àtì
C1/C2 *t > t	*tāGi ‘bee’	tàgì	tàgì
	*káta ‘earth pot’	kàtá	kátá [↓]

AFFRICATION OF *ɖ/*nd

Proto-SBB

Furu

Bagiro

C1/C2 *ɖ > z

*ɖV ‘two’

zó

zó

*kàɖà ‘sun’

kàzà

kàzà

*kàɖī ‘elephant’

kàzí

kàzī

*uɖe ‘fart’

zè

zè

C1/C2 *nd > ndʒ/nz

*ndV̄ ‘voice, sound’

ndʒù

nzù

*àndā ‘enter’

ndʒá

ànzā

*ndìKò; *ndòKò ‘grill’

ndʒòkò

nzìkò

*NVndV ‘brother’

nòndʒó

nánzó[↓]

STRENGTHENING OF *j/*nj

Proto-SBB

Furu

Bagiro

C1/C2 *j > g(j)

*jV ‘arm, hand’

gí

gī

*kújì ‘house’

kúgì

kúgí[↓]

*kàjò ‘horn’

kàgjò

kàgjō

C1/C2 *nj > ŋgj

*kùRnjā ‘chicken’

kùŋgjá

kùŋgyā

*mVnjV ‘bean’

mòŋgè

mòŋgè

*ùnjà ‘leg’

ŋgjá

ŋgyà

LOSS OF C2 *ɲm > ẽ̃ IN FURU

	Furu	Bagiro	Proto-SBB
‘fly’	kàấ	káwū	*KáRɲm̄; *KáRɲmū
‘caterpillar’	táấ	?	*tàɲm̄; *tàɲmū;

	Furu	Bagiro	Proto-SBB
‘cooking pot’	tàwấ	kátá	*kAlɛ; *kVlV; *tA ɛ; *tV V
‘to hear’	ẽấ	wò̄	*ìwō; *OwO

?

LOSS OF INHERITED IMPLOSIVES IN FURU

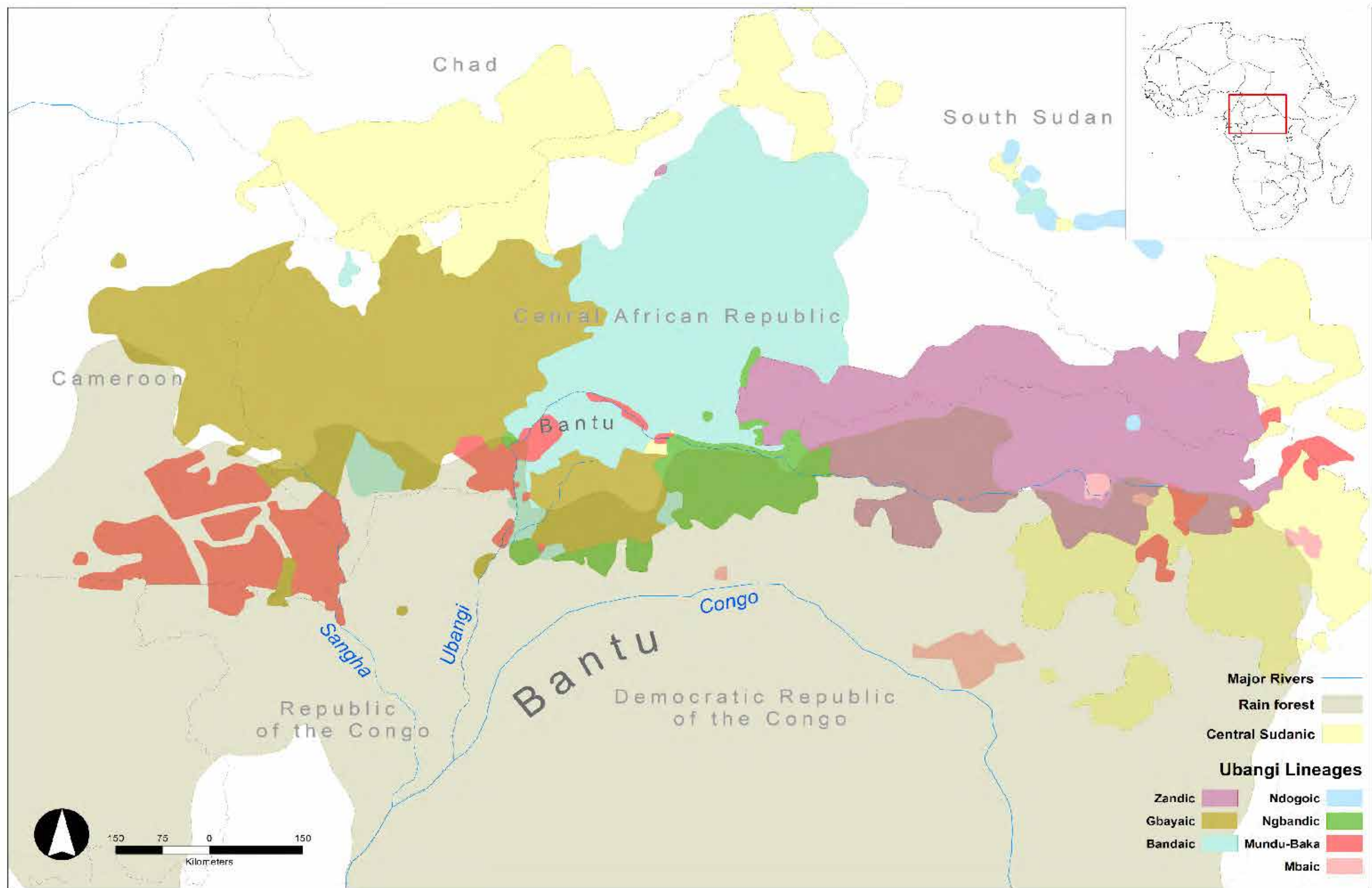
	Proto-SBB	Furu	Bagiro
C1/C2 *ɓ	*ɓàlī ‘slave’	ɓálī	ɓálē
	*ɓàtī ‘monkey’	ɓàtí	ɓàtī
	*ɓ̃ɓ̃ ‘craving’	ɓ́	ɓ̃
	*ɓògò ‘to steal’	bògó	ɓ̀g̀
	*Ṽɓ̃Ṽ ‘village’	bébé	ɓ̃ē
	*èɓ̃è ‘mushroom’	bēbē	ɓ̃è
	*ɓVlV ‘fear’	bèlé	ɓ̃èlē
	*kàɓ̃è ‘egg’	káɓ̃è	kàɓ̃è
	*íɓ̃ò ‘to find’	ɓ́	ɓ̃ò
	*Sùɓ̃ū ‘oil’	kìɓ̃ú	kyùɓ̃ū
	*ŋgàɓ̃à ‘husband’	ŋgàɓ̃à	ŋgàɓ̃à

Implosives are introduced via borrowings, e.g., ɓ́úfú ‘ten’ < Mbanza (Banda) ɓ́úfú ‘ten’

LOSS OF INHERITED IMPLOSIVES IN FURU

	Proto-SBB	Furu	Bagiro
C1/C2 *ɖ	*ɖɔ̀bɔ̀ ‘path’	ɖóɔ̀bò	ɖɔ̀bɔ̀ [↓]
	*pàɖù ‘fire’	fàɖù	fàɖù
	*aɖo ‘to squat’	ɖó	àɖɔ̀
	*tuɖɛ ‘to vomit’	tùɖɛ́	–
	*aɖɛ ‘to rain’	ɖɛ́	àɖɛ́
	*kuɖa ‘debt’	kúɖà	–
	*ɔ̀ɖi ‘to dig’	ɖí	òɖí
	*taɖɔ̀ ‘animal’	táɖò	táɖɔ̀ [↓]

BORROWINGS: EVIDENCE FOR A STRATIGRAPHY OF CONTACT EVENTS



SHARED BORROWINGS FROM KNOWN SOURCES

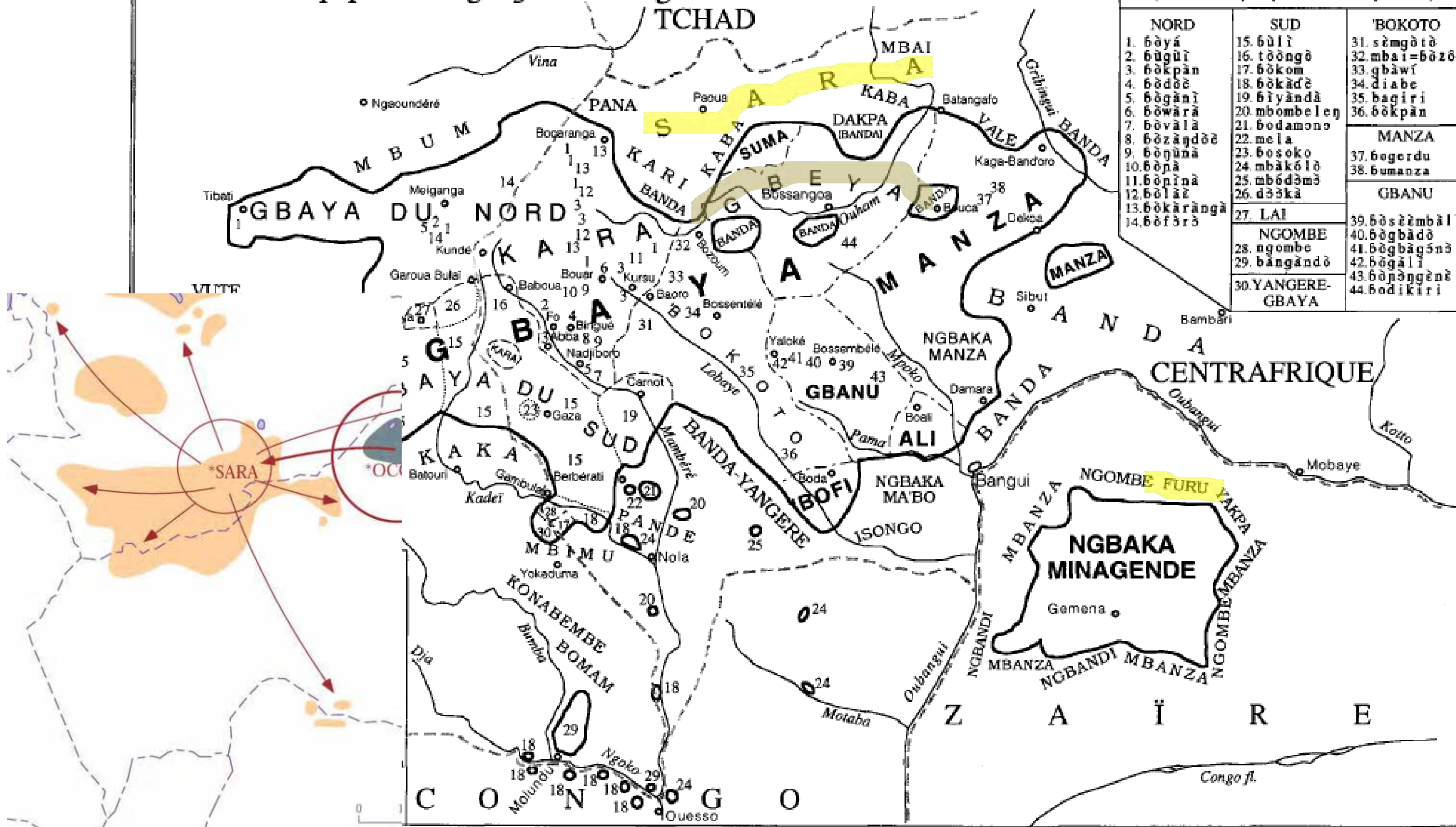
	Fulu	Bagiro	Proto-SBB	Proto-Gbaya
‘drum’	dàlá	dālā	*dala	*dàl ‘skin drum’
‘twin’	dàni	dàni	*nduŋma	*bé-dàn ‘twin’
‘buttock’	gèdè	gèdè	*mɔtɔ	*góɔ́ Gbeya gèdè
‘axe’	kpòlòmò	kpòlòmò	*guRnga	*kpě́lí Ngbaka M. Kpènèmò
‘cassava’	kālāŋgā	gàdàngà	?	*gèdà Ngbaka M. Kàdàngà

Carte 1 - Les populations gbayamanza-ngbaka

QUELQUES ALLIANCES CLANIQUES

(la liste est complète pour les seuls Gbaya du Sud)

NORD	SUD	'BOKOTO
1. b̄yā	15. b̄l̄i	31. s̄m̄ḡd̄t̄
2. b̄ḡū	16. t̄d̄nḡ	32. m̄b̄a i = b̄z̄m̄
3. b̄k̄p̄ā	17. b̄k̄m̄	33. ḡb̄w̄f̄
4. b̄d̄d̄ē	18. b̄k̄āf̄ē	34. d̄īa b̄ē
5. b̄ḡān̄i	19. b̄īȳān̄d̄ā	35. b̄a ḡīr̄i
6. b̄w̄ā r̄ā	20. m̄b̄om̄b̄e l̄ē	36. b̄k̄p̄ā
7. b̄v̄ā l̄ā	21. b̄o d̄a m̄o n̄o	
8. b̄z̄ā ḡd̄d̄ē	22. m̄e l̄ā	MANZA
9. b̄ḡū n̄ā	23. b̄o s̄o k̄o	37. b̄o ḡe r̄d̄u
10. b̄p̄ā	24. m̄b̄ā k̄l̄ē	38. b̄u m̄a n̄z̄ā
11. b̄p̄īn̄ā	25. m̄b̄ō d̄ō m̄ō	
12. b̄l̄ā z̄ē	26. d̄z̄z̄k̄ā	GBANU
13. b̄k̄ā r̄ā n̄ḡā	27. L̄A I	39. b̄ō s̄z̄ē m̄b̄ā l̄i
14. b̄f̄r̄ē		40. b̄ō ḡb̄ā d̄ō
	NGOMBE	41. b̄ō ḡb̄ā ḡn̄ō
	28. n̄ḡo m̄b̄e	42. b̄ō ḡā l̄i
	29. b̄ā n̄ḡā n̄d̄ō	43. b̄ō n̄ḡḡē n̄ē
	30. YAN GERE-GBAYA	44. b̄o d̄īk̄īr̄i



(NON-)SHARED BORROWINGS FROM KNOWN SOURCES

	Furu	Mono (Bandaic)	Bagiro	Proto-SBB
‘toad’	gbēŋgbētòrò	lètòrò	zòkō	*karɔ; *kAɛ; *kaɔ; *kA ɛ
	Furu	Mbanza (Bandaic)	Bagiro	Proto-SBB
‘star’	mbèrèpè	mbílípè	gélē	?
	Furu	Gbanziri (Mundu-Baka)	Bagiro	Proto-SBB
‘frog’	kpódò	kpódò	màhū	*Cadɔ
‘scolopendra’	ndàŋò	ndàŋò	?	?
	Furu	Ngbaka Ma ɓo (Mundu-Baka)	Bagiro	Proto-SBB
‘heart’	ŋgbókà	ŋgbókù	tàlà ŋgálú [†]	*ngA ɛ; *ngaɔ; *ngAɛ; *ngalo
	Furu	Proto-Mundu-Baka	Bagiro	Proto-SBB
‘arrow’	kpílì	*kpīlī	pīlī	?
‘name’	lì	*ʔilɪ	lī	*tV
‘knee’	zùbālù	*nzò-gbē-lè	zò ɓàlū	*kVfV; *gVfV

	Furu	Proto-Bantu	Bagiro	Proto-SBB
‘guinea-fowl’	kángà	*kángà	tàngyà	*taRnja
‘milk’	màbēlè	*béèdè ‘breast’	mànē mbà	*usi
‘python’	mbòmò	*bòmà	mbòmò	*mama; *dVlV
‘wood’	màbájá	Lingala màbájá	kāgā	*kaga
‘village chief’	kúmú	*kúmú	mākōnzì	*ɲArɛ
‘to sell’	kètékà	*(kù-)ték-à	yè̄	*igo; *OgO; *ndigo; *ndOgO

	Bagiro	Ngbandi	Furu	Proto-SBB
‘hippo’	mbìmbà	mbìmbà	ɲgùbú	*Saba; *mɔndɔ
‘sand’	lúlú	lúlú	wájà	*Sayi; *Sayɛ
‘canoe’	ɲgɔ̄	ɲgɔ̄	tɔ̄kpɔ̄	*tɔ̄kpɔ̄
‘fishing net’	gbándá [↓]	gbándá	gbàndá ‘cobweb’	*ɲgaɖa

(NON)SHARED BORROWINGS FROM UNKNOWN SOURCES

	Furu	Bagiro	Proto-SBB
‘nail’	kábìlì	kàmbílì	*Songo
‘grass’	kùtū	nzōkū	*kali; *NGali; *mV; *nduma; *nduma
‘mark’	nd̄zùbá	nzùbā	*nguḷa; *ngiḷa; *ngula; *ngila; *GOtO
‘spider’	tòlè	tùlè	*SV
‘snake’	b̀̀k̀̀j̀̀	b̀̀k̀̀j̀̀	*ili, *Safa; *SVfV; *Saja
‘neck’	ṅg̀̀j̀̀	nǵ́ý́	*ndiḃo; *nduḃa; *ndɔḃɔ; *ndiḃɔ; *ngiḃo;
‘place’	l̀̀	l̀̀	*NV; *bEsE

LEXICAL REPLACEMENT

‘Ficus platyphylla’
‘Combretum glutinosum’
‘Parkia africana’
‘Ficus ingens’
‘Gymnarchus niloticus’
‘Ophicephalus obscurus’
‘Mormyridae sp.’

Fulu

būrū
kūbūbè
méndègbè
lòbò
dólì
kīdū
bòṅgó

Proto-SBB

*KOḑO; *KVḑV
*diro; *dVrV
*mato; *mbaRto
*ḑAlɛ; *ḑARlɛ
*tumu; *temi
*mOgO; *migo
*mARlɛ



MYSTERIES: LEXEMES SHARED ACROSS DIFFERENT PHYLA

	Furu	Bagiro	Proto-SBB	Proto-Gbaya	Proto-Mundu-Baka	Bandaic	Ngbandic	Zandic
‘skin’	ndàrá	ndàlā	*ḡana; *Sana, *ndara	*ndàrà ‘skin’	Proto-River *ndà-lá ‘skin’	—	—	—
‘moon’	náfè	nāfē	*Nape	*zè/zìk	*pē/*pē	ᵑépī (Mbanza) yípī (Linda)	—	—
‘head’	zò	zò	*ḡV	*zù	*nzò/ᵑò	—	—	—
‘saliva’	wòló	wōlō	*SOṛO/SOḷO/ *ḡOḷO/*ḡOrO	—	íṅgō-sōrō (Kpala)	(ṅgú)rūsū (Linda)	sōrō (Yakoma)	sūlū (Nzakara)
	Furu	Bagiro	Proto-SBB	Proto-Bantu	Sound symbolism?			
‘grandmother’	kàkà	kàkà	*kaka	*kààkà				
‘tail’	kílà	kílā	*Sila (? , see Gula kílà)	*kídà				
	Furu	Bagiro	Proto-SBB	Proto-Bantu	Proto-Gbaya	Bandaic	Ngbandic	Zandic
‘hyena’	ndúkú < Mbanza zúkú	gbòṅgó	*ḡoṅḡo	*bòṅgó ‘big mammal’	*ḡòṅgó 'spotted hyena'	gbòṅgó (Linda)	gbòṅgó (Kpatiri)	gbòṅgó (Geme)
‘hippo’	ṅgùbú	—	*Saba;*mɔṇḡo	*gùbú	*ṅgùbú	—	—	?
‘crocodile’	ṅgàdó	ṅgùndē	*mara *ṅganja	*gàndú	*ṅgàndó	—	ṅgùndē	?

CONCLUSIONS

- Phonology reflects many of the areal features of Niger-Congo and Central Sudanic languages spoken in the MSB
- Vowel nasalization in Fulu is probably due to contact with Ubangi groups in DRC which also developed some nasal vowels (but languages with the same glossonym in CAR did not)
- At least some Fulu dialects are losing inherited implosives while Bagiro does not; new implosives enter the language via borrowings
- Mergers and affrication sound changes are old, the development of nasalized vowels out of the loss of the nasal labial-velar is more recent and happened only in Fulu

- No evidence for borrowings from Ubangi subgroups such as Mbaic or Zandic
- Before Bagiro and Fulu split, ancient contact happened with Gbayaic and Mundu-Baka.
- Two layers of contact with Mundu-Baka: shared borrowings (older) and borrowings found only in Fulu of DRC (more recent).
- At least some borrowings from Bantu, Bandaic and Ngbandic likely happened after the split
- From where did the Fulu-Bagiro split?
- Could the Bagiro in CAR be a back migration from DRC?
- Why did the speakers of a minority language such as Fulu in DRC tripled in the last 40 years?

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THANK YOU!

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