

# Sandawe language contact

TOWARDS A LINGUISTIC MAP OF EARLY TANZANIA



# Introducing the paradox

- Traditional belief that pre-Bantu archaeological evidence in Tanzania (Pastoral Neolithic, +3000BP) must be Cushitic-speaking

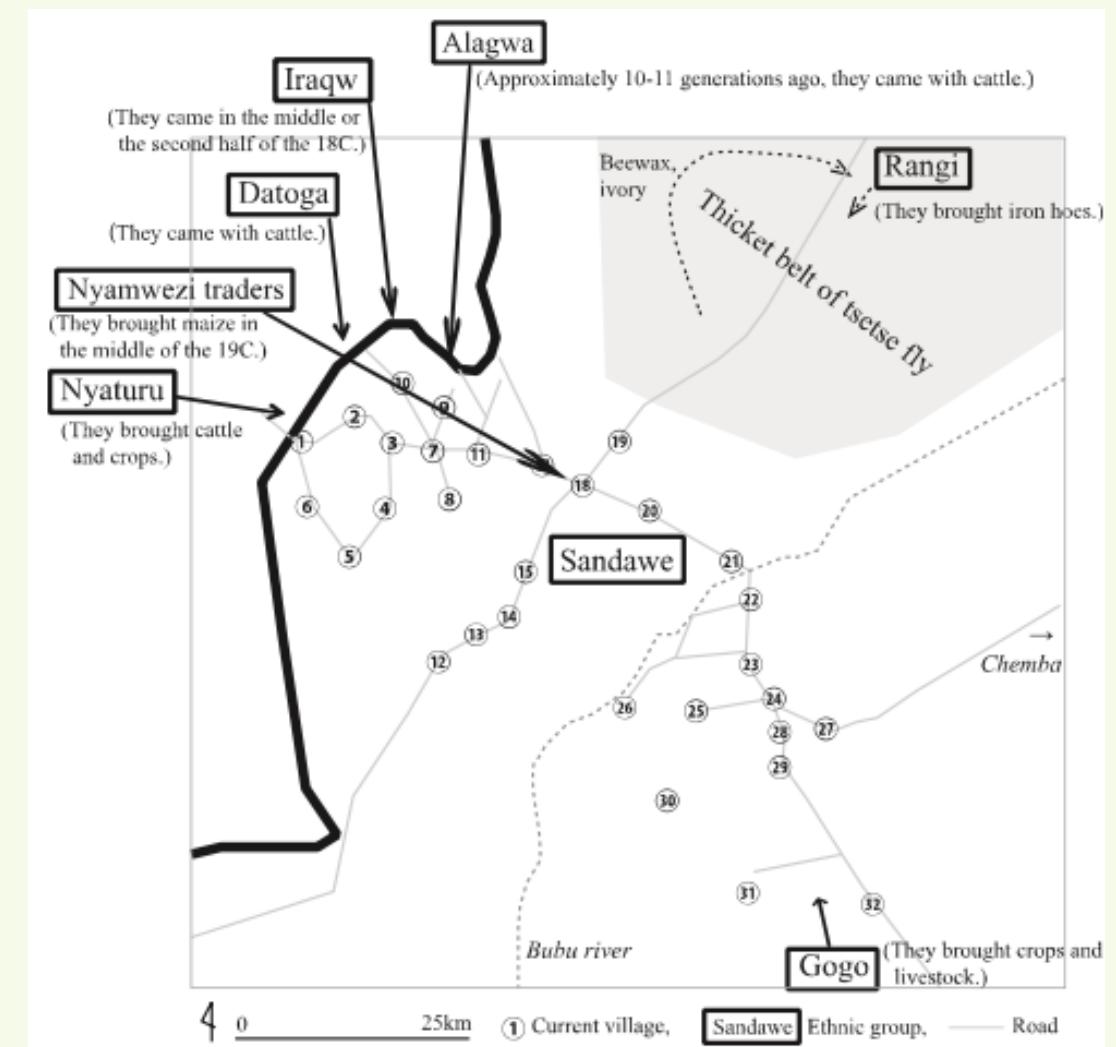
Cushitic = agropastoralists

Sandawe = hunter-gatherers

(until 16-19th century; Trevor 1947, Newman 1970)

*The first, basic elements of cattle culture in Sandawe Country are derived from the **Cushities**, but that cattle-bleeding and the building-up of real herds was introduced by the **Nyaturu**, who may have borrowed these traits from the **Datooga**.*

(Ten Raa, 1986)



Historical impact of neighbors on Sandawe livelihood (Yatsuka, 2016: 90)

# Introducing the paradox

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Cushitic = agropastoralists

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The first, basic elements of cattle culture in Sandawe Country are derived from the **Cushities**, but that cattle-bleeding and the building-up of real herds was introduced by the **Nyaturu**, who may have borrowed these traits from the **Datooga**. (Ten Raa, 1986)

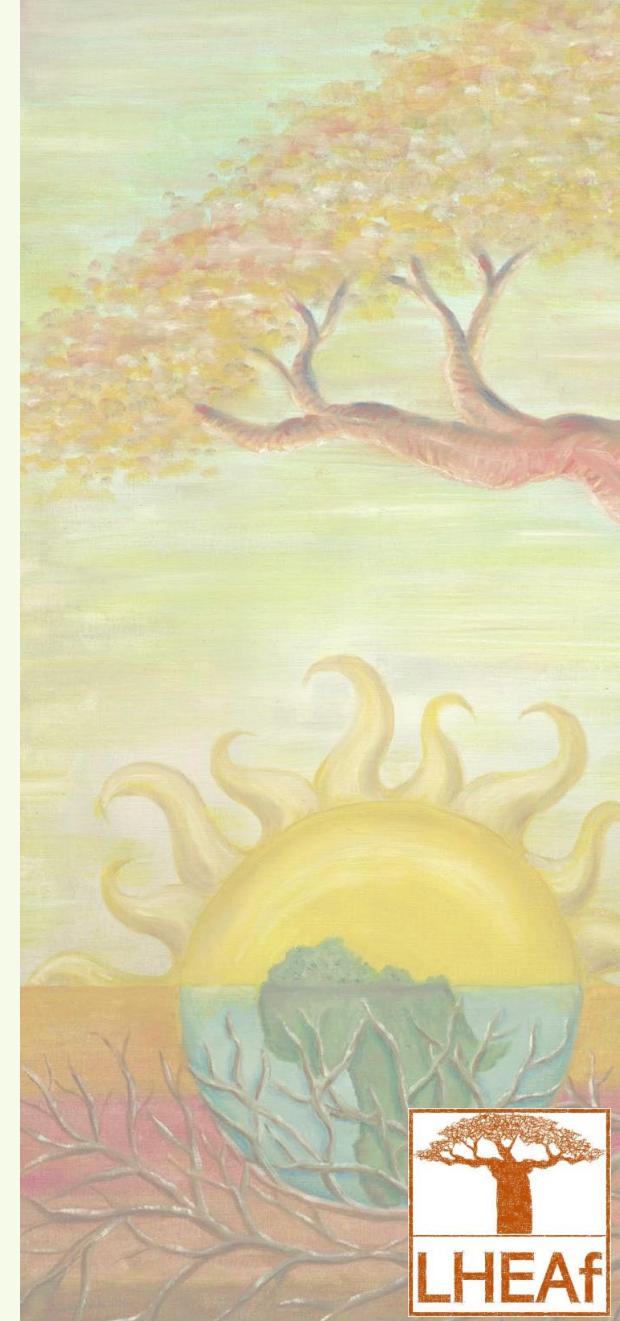
- No linguistic evidence for Cushitic speakers in Tanzania before **1000 BP**



# Research aims

- Recent findings: transition from hunting-gathering to pastoralism was so gradual that **mixed practices** may have emerged early on: **5000BP** (Knisley, 2021)
- **Parallel linguistic hint:** South Cushitic differentiation within Cushitic (substrate influence?: *X factor*)

- Therefore, we need to ask these questions:
  - Could Pastoral Neolithic be indicative of pastoralist Khoisan practices?
  - Could, at least partially, this *X factor* be Sandawe substrate in South Cushitic?
  - How could we (partially) determine this?
  - **Lexical borrowing** will help to construct a linguistic map delineating the contact layers.



# Methods: Secondary data collection

## I. Compilation of connections (dictionary data)

Ehret & Ehret's dictionary (2012)

### B

bába	father (Farkwa dialect) (E: <i>baába</i> ) [SCush loanword: PSC *baaba]
babá?to	cockroach (E: <i>bábá?to</i> ) [SCush loanword: PR *babaf- plus ERift fem. n. suff. *-to]

Dempwolff (1916)

	Sandawe		Buwe
gelewa	Milchgefäß	kaliva	Milchgefäß
gwata	Banke	-kwata	fassen

Kiessling & Mous PWR reconstructions (2003)

\*'um (v) 'educate, bring up, care for'

PSWR prenasal vowel lowering (PSWR6). IR substitution by durative derivation. BU optional durative extension. Transfer into Sandawe 'àmè 'bring up'.

IR 'umiim (v) 'care for; hatch an egg'

GO 'um (v) 'bring up a child'

AL 'om

BU 'om ~ 'omim

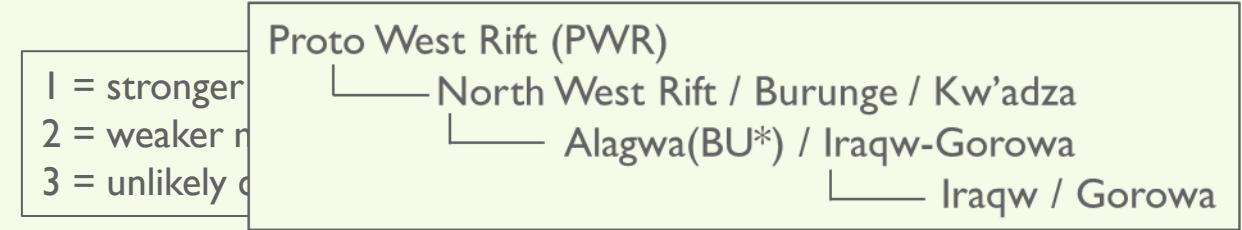
# Methods: Database

## 2. We created a database\* of ca. 400 loanwords:

Sandawe	Gloss	REF	Level	Cushitic	Gloss	REF	Parallels	REF	Conn	Link	Source	Desti	Semantic field
[Placenames]	[Placenames]	K&M	ALBU	*go'ima	protected place (n.pat.m.)	K&M		K&M	1	B	ALBU	SAN	Geography; environment
ts'e	hair	Ehret	PSC IRQ/KW	*t'eh- se'eengw	body hair	Ehret MM	IR se'eengw	AHR	1	A	SAN/KW	PWR	Body parts; anatomy
babá?to	cockroach	Ehret	PR PWR	*babá? *babá/aa	(fem.n.suffix *-to) cockroaches (n.pl.f) 'cockroaches'	Ehret; K&M	BU baqad-	Ehret; K&M	1	D	KW	SAN	Other (wild) animals
bádísò	first-born	K&M	PWR	*badiisu	first-born (n.sg.m.)	K&M	OR bariisa; IR bariis; AL bariisimoo; BU badiisu	K&M	1	A	PWR	SAN	Kinship
bak'ara	[kind of water or marsh plant; looks like a broad-leaved grass with flowers]	Ehret	PSC PIRQ	*-Vr- *baqaaru	(n.suffix) (n.col.m) 'cordia ovalis trees'	Ehret; K&M	PIR *baqaaru; GO baqaaraa;	Ehret; K&M	1	C	IRGO	SAN	Botany
bák'ara	tree creeper with pink flowers and heart-shaped leaves	Ehret	PSC	*-Vr- *baqaaru	(n.suffix) (n.col.m) 'cordia ovalis trees'	Ehret; K&M	PIR *baqaaru; GO baqaaraa;	Ehret; K&M	1	A	PWR	SAN	Botany
balúko	intestines, bowels, entrails, giblets	Ehret	ER	-ko *bala?uungw	masc.n.suff millet	Ehret K&M	BU baruung AL baluu	K&M	3	D	KW	SAN	Body parts; anatomy
baraádze	army worm; caterpillar [in general]	Ehret	KW			Ehret			2	D	KW	SAN	Other (wild) animals

\*:Adapting Jeroen van Ravenhorst's database (forthcoming!)

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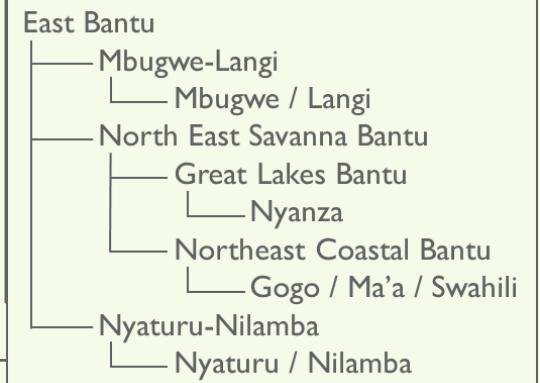
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Agriculture
Cattle names; animal husbandry
Other (wild) animals
Body parts; anatomy
Domestic terminology
Hunter-gatherer terminology
Botany
Geography; environment
Medicine; disease
Other tools; technical; crafts
Clothing; accessories
Colors
Physical qualities
Food; preparation
Ritual; (religious) culture
Emotion; feelings; insults
Kinship
State or condition verbs
Perception; sensory verbs
Non-motion activity verbs
Motion verbs

# Methods: Database

2. We created a database of ca. 400 loanwords:

1 = stronger match  
2 = weaker match  
3 = unlikely connection



Sandawe	Gloss	REF	Level	Bantu	Gloss	REF	Conn	Link	Source	Destin	Semantic field
agida	leader	Dempwolff	SWAHILI	akida	head of village	Dempwolff	1	A	BAN	SAN	Kinship; title
anaku	to bleach	Dempwolff	EAST BANTU	-yaneka	to put out in the sun	Dempwolff	1	C	BAN	SAN	Motion verbs Domestic terminology
bak'	to remain	Ehret	SWAHILI	-baki	remain		1	A	BAN	SAN	State or condition verb
balabala	country road	Dempwolff	SWAHILI	barra	mainland	Dempwolff	2	A	BAN	SAN	Geography; environment
banda	open hut	Dempwolff	SWAHILI	banda	hut	Dempwolff	1	A	BAN	SAN	Domestic terminology
baradza	bridge	Dempwolff	SWAHILI	daraja	bridge	Dempwolff	1	A	BAN	SAN	Geography; environment
barua	Letter	Dempwolff	SWAHILI	barua	letter	Dempwolff	2	A	BAN	SAN	Other tools; technical, crafts

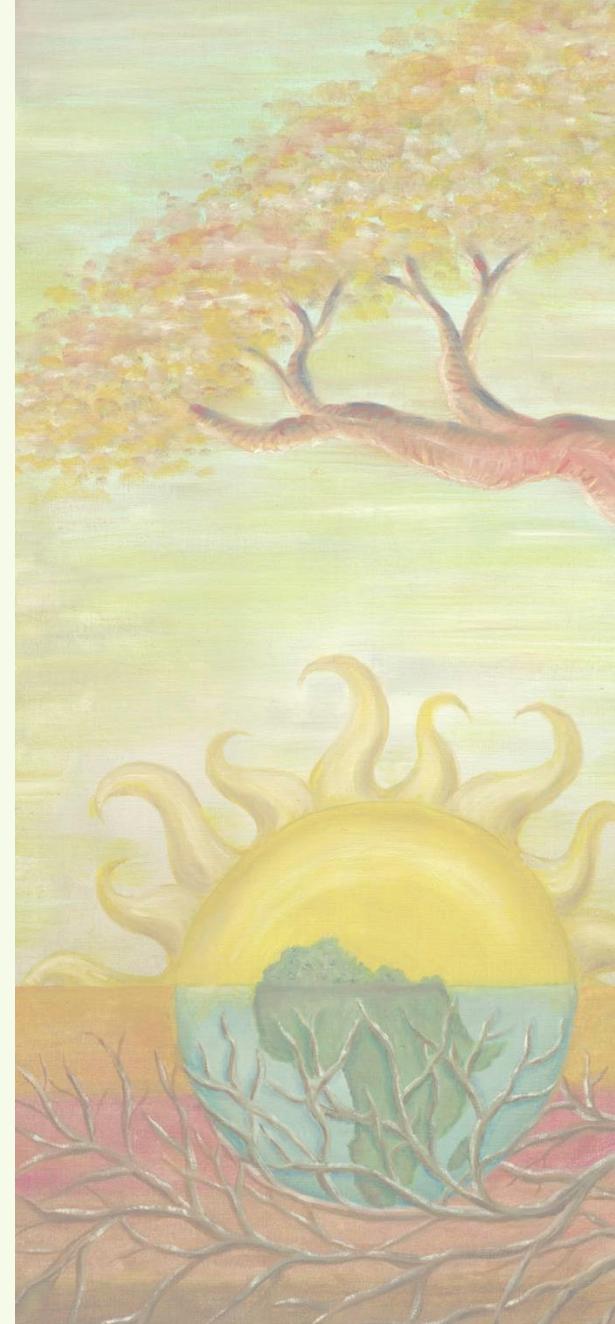
# Results: Reassessing links

Connection	#	%
Stronger matches (1)	268	68.2
Weaker matches (2)	72	18.3
Unlikely matches (3)	53	13.5
<b>TOTAL</b>	<b>393</b>	<b>100</b>



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# Results: Cushitic (levels)

Proto West Rift (PWR)

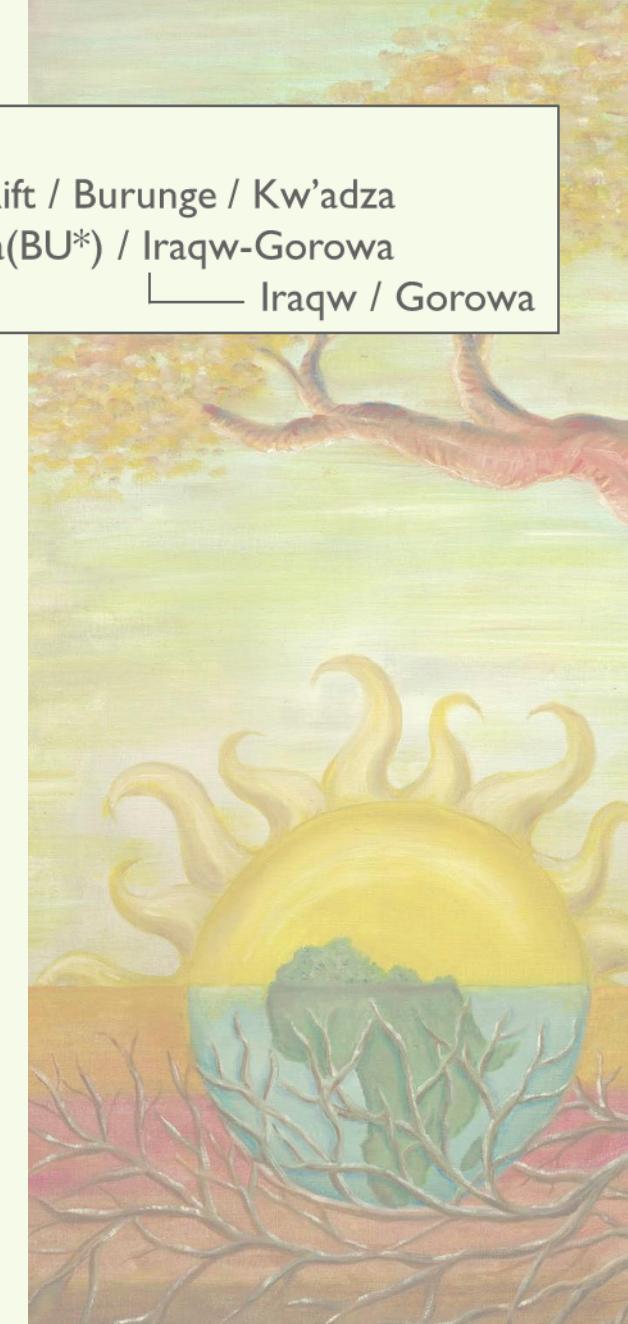
└ North West Rift / Burunge / Kw'adza

└ Alagwa(BU\*) / Iraqw-Gorowa

└ Iraqw / Gorowa

Level	#	%
P(N)WR	128	64.7
ALBU	25	12.6
IRGO	29	14.6
KW	16	8.1
<b>TOTAL</b>	<b>198</b>	<b>100</b>

35.3%



# Results: Cushitic (directionality)

Level	SAN > (#)	Semantic fields	> SAN (#)	Semantic fields	Uncl.	Semantic fields
P(N)WR	19	<b>Agriculture</b> Body parts; anatomy Botany Geography; environment <b>Cattle names; animal husbandry</b> Colors <b>Domestic terminology</b> <b>Food; preparation</b> Hunter-gatherer terminology Other tools; technical; crafts <b>Medicine; disease</b> Other (wild) animals	101	Abstract concepts Activity verb Agriculture Body parts; anatomy Botany Cattle names; animal husbandry Colors Domestic terminology Food; preparation Function word <b>Geography; environment</b> <b>Hunter-gatherer terminology</b> <b>Kinship</b> Medicine; disease <b>Motion verb</b> Non-motion activity verb Numerals <b>Other (wild) animals</b> <b>Other tools; technical; crafts</b> Physical qualities State or condition verb	8	Food; preparation Geography; environment Hunter-gatherer terminology Non-motion activity verb

# Results: Cushitic (directionality)

Level	SAN > (#)	Semantic fields	> SAN (#)	Semantic fields	Uncl.	Semantic fields
ALBU	6	Botany Colors <b>Domestic terminology</b> <b>Food; preparation</b> Other (wild) animals	12	Agriculture Body parts; anatomy Botany Cattle names; animal husbandry Colors Domestic terminology Food; preparation <b>Geography; environment</b> <b>Hunter-gatherer terminology</b> <b>Other tools; technical; crafts</b>	7	Body parts; anatomy Food; preparation Other (wild) animals

# Results: Cushitic (directionality)

Level	SAN > (#)	Semantic fields	> SAN (#)	Semantic fields	Uncl.	Semantic fields
IRGO	9	<b>Agriculture</b> Body parts; anatomy <b>Domestic terminology</b> Functional word Non-motion activity verb Other (wild) animals State or condition verb	15	Agriculture; Body parts; anatomy Botany Clothing; accessories Colors Domestic terminology <b>Geography; environment</b> Food; preparation Function word <b>Other (wild) animals;</b> Ritual; (religious) culture State or condition verb	5	Agriculture Medicine; disease Motion verbs State verbs

# Results: Cushitic (directionality)

Level	SAN > (#)	Semantic fields	> SAN (#)	Semantic fields	Uncl.	Semantic fields
KW	3	Domestic terminology Hunter-gatherer terminology	12	Body parts; anatomy Cattle names; animal husbandry Domestic terminology Food; preparation Medicine; disease <b>Other (wild) animals</b> Personal qualities State or condition verb		Other (wild) animals

# What are we finding?: Cushitic-Sandawe

## I. Borrowings are not particularly localized in any semantic grouping

Lifestyle must have been much more integrated

- Agriculture, cattle names; animal husbandry from Sandawe to Cushitic  
*t'axumé* (cf. 156) 'to dig a ditch' > IR *tlaxuus* 'work in turn on each other's plot'
- Hunting-gathering, tools, crafts, names of wild animals, geography terminology from Cushitic to Sandawe  
*?agúsa* (cf. 266) 'roots and fruit collected, uncultivated food' < PWR \**qag-* 'to eat'
- Possible in either direction  
*xupu* (cf. 205) 'to lie down flat on the stomach; to kneel down with head on the ground as when one wants to hide' <> PWR \**xup* 'to turn oneself face down'

Sandawe might have had cattle/agriculture (mixed practices) by the **time of contact**

- Loans are at PWR/PNWR level

# What are we finding?: Cushitic-Sandawe

## 2. Time of contact was relatively old

We have PWR and PNWR-level elements in both directions (older)

## 3. Contact was continuous, prolonged and intense

In addition to P(N)WR elements, we also have (AL)BU, IRGO-level elements in Sandawe (newer)

*duurú* ~ *dùdù* (cf. 26) 'river bank; Bubu river' < PWR *duuduu* 'reed'

Double loan from different levels of WR into SAN (PNWR dental lenition)

SAN > CUS: Subset of core elements of society, traditionally linked to the **women sphere**

Sandawe women marrying into Cushitic

- At PWR-level

*àmé* (cf. 43) 'to bring up > PWR \*'um 'to bring up, to educate, to care for'

- At (AL)BU, IRGO-level

*kíba* (cf. 47) 'stove' > BU *kebabu* 'stove'

*phálóo* (cf. 166) 'knife' > ALBU \*'íimpalóo 'sharp sickle-like knife'

# What are we finding?: Cushitic-Sandawe

## 4. **Cushitic must have arrived late in the Sandawe Country**

Loans into Sandawe not that integrated into the language (similar to SW loans)

*thùmàkoo* (cf. 21) ‘tobacco’ < SW *tumbako* ‘tobacco’

C > Ch

*khorok’o* (cf. 96) ‘to be pure, clear, proper, lucid, transparent’ < IR *koroq* ‘to be polished’

NC cluster simplification

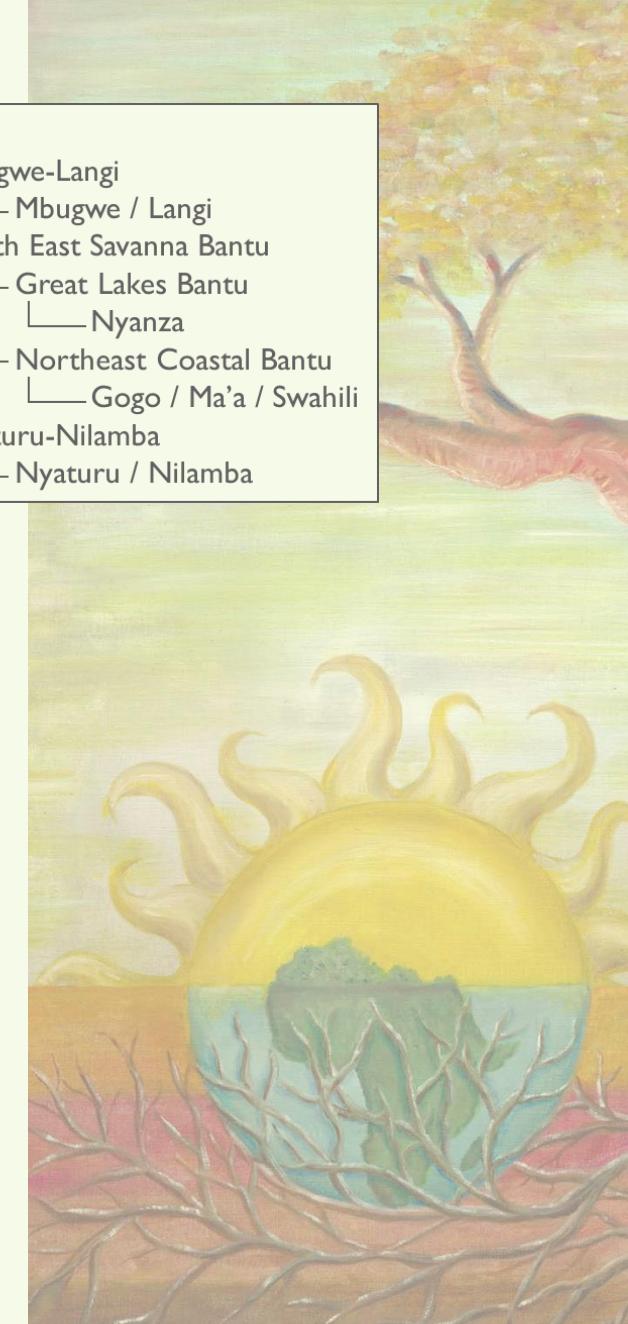
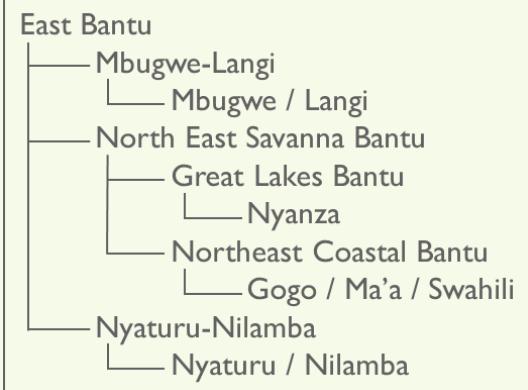
*xwāte* (cf. 260) ‘to cook food’ < PWR \**xwaant-iim* ‘gigel, to stir’

- Structural variable: distance between CUS-SAN phonological inventory and phonotactic rules might be shorter than BAN-SAN

# Results: Bantu (levels)

Level	#	%
EAST BANTU (EB)	27	37.5
NYATURU, ILAMBA	2	2.8
LANGI, MBUGWE	1	1.4
GOGO	8	11.1
SWAHILI	38	52.8
TOTAL	72	100

15,3%



# Results: Bantu (“directionality”)

Conn	> SAN (#)	Semantic fields
EB	27	Body parts; anatomy <b>Cattle names; animal husbandry</b> <b>Domestic terminology</b> Clothing; accessories <b>Geography; environment</b> <b>Food; preparation</b> Functional word Geography; environment <b>Kinship; Friendly terminology</b> Medicine; disease Motion verbs Non-motion activity verbs <b>Other tools; technical; crafts</b> Physical qualities State or condition verbs

Conn	> SAN (#)	Semantic fields
NYATURU, ILAMBA	2	<b>Domestic terminology</b> Clothing; accessories
LANGI, MBUGWE	1	<b>Domestic terminology</b>
GOGO	8	<b>Cattle names; animal husbandry</b> Clothing; accessories <b>Domestic terminology</b> <b>Food; preparation</b> Motion verbs <b>Other tools; technical; crafts</b> <b>Other (wild) animals</b>

# Results: Bantu (“directionality”)

Conn	> SAN (#)	Semantic fields
SWAHILI	38	<b>Activity verb</b> Agriculture Domestic terminology Botany Cattle names; animal husbandry <b>Clothing; accessories</b> Domestic terminology Emotion; feelings; insult Food; preparation Functional word Geography; environment Kinship; title Medicine; disease Motion verbs <b>Non-motion activity verbs</b> <b>Other tools; technical; crafts</b> Ritual; (religious) culture State or condition verbs

# What are we finding?: Bantu-Sandawe

## I. Differences of length and time of contact: Bantu-Sandawe is more recent than Cushitic-Sandawe

We find Bantu words into Sandawe that look very old.

However, they are ultimately from Cushitic: pre-PWR in Nyanza gave these lexical items to Bantu.

*dama* (cf. 15) ‘young domestic animal’ < EB *dama* ‘calf’ < (pre)PWR *dama* ‘heifer’

*gwártha* (cf. 56, 30) ‘he-goat’ < IL *gulati* ‘he-goat’ < (pre)PWR *gulata* ‘he-goat’

*k’amba* (cf. 35) ‘male domestic animal’ < IL *ndzagamba* ‘bull’, GO *kambaku* ‘stallion, bull’ < (pre)PWR *yaqamba* ‘bull’

Recent Bantu contact supported by **Sandawe oral history** (Ten Raa, 1969, 1986)

# What are we finding?: Bantu-Sandawe

## 2. Focalized semantic grouping: cattle/agriculture and domestic terminology

*malambo* (cf. 37) 'big hollow' < GO *mulambo* 'pit for drinking (animals)'

*anaku* (cf. 3) 'to bleach' < EB *-yaneka* 'to spread out in the sun' (PB MAIN 3206 *janik* 'spread to dry in the sun')

*musu* (cf. 76) 'stamper' < MBU *musi* 'pestle'

Why (especially if they already had mixed practices)?

- 500 years ago, Sandawe were impoverished pastoralists (lost cattle) and went back to almost solely hunting
- Contact might have happened before, but they weren't learning from each other, only after losing cattle the Sandawe did
- Integration of Bantu into the Sandawe: intermarriage between Sandawe and Nyaturu 40%, Turu 28%, Kumbu 9%, Rangi 4% (Newman, 1970)  
Not Rangi contact → Rangi have had little contact with the Sandawe because of a tsetse fly belt that occurs in the north Sandawe Country (Newman 1970)

# What are we finding?: Bantu-Sandawe

## 3. Swahili recent (18-19th century) loans

Loans related to recent times, sometimes from Indo-European languages (English, Portuguese)

*bunduka* (cf. 13) 'gun' < SW *bunduki* 'gun'

*mudzungu* (cf. 73) 'European' < SW *mzungu* 'European'

*gari* (cf. 4) 'car' < SW *gari* 'car' < EN *car*

*pesa* (cf. 5) 'coin, piece of money' < SW *pesa* 'copper coin' < PG *peso*

# Results: Nilotic (“directionality”)

Conn	> SAN (#)	Semantic fields
DAT		<b>Color (referring to cattle; animal husbandry)</b>

*?árara* 'gray, tan, buff, orangish' < DAT *arεεr* 'red-brown cow'  
Cushitic parallels: IR. *areer* 'red-brown cow'

# What are we (not) finding?: Nilotic-Sandawe

## I. Not much influence of Nilotic (Datooga, Maasai) pastoralists:

Why?

- 2nd hand contact via Bantu, such as Nyaturu (Ten Raa, 1986)?

“The first, basic elements of cattle culture in Sandawe Country are derived from the Cushities, but that cattle-bleeding and the building-up of real herds was introduced by the Nyaturu, who may have borrowed these traits from the Datooga.” (Ten Raa, 1986)

But... why not before?

- South Cushitic moved from East of Lake Victoria, probably together with Datooga into the Tanzania Rift Valley