

Linguistic macro-areas in Africa: when “boundaries” are areas themselves

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1 Introduction

Level	Space	Time	Sources	Disciplines	Scenarios
Person	Bilingual individual	0-50 years	Recordings, tests, and experiments	Psycho-linguistics	Brain connectivity
Micro	Bilingual community	20-200 years	Recordings and fieldwork observations	Socio- and anthropological linguistics	Specific contact scenarios
Meso	Geographical region	Generally 200-1000 years	Comparative data; historical sources	Historical linguistics	Global contact scenarios
Macro	Larger areas of the world	Deep time	Typological, genetic, archeological data	Areal typology	Vague or no contact scenarios

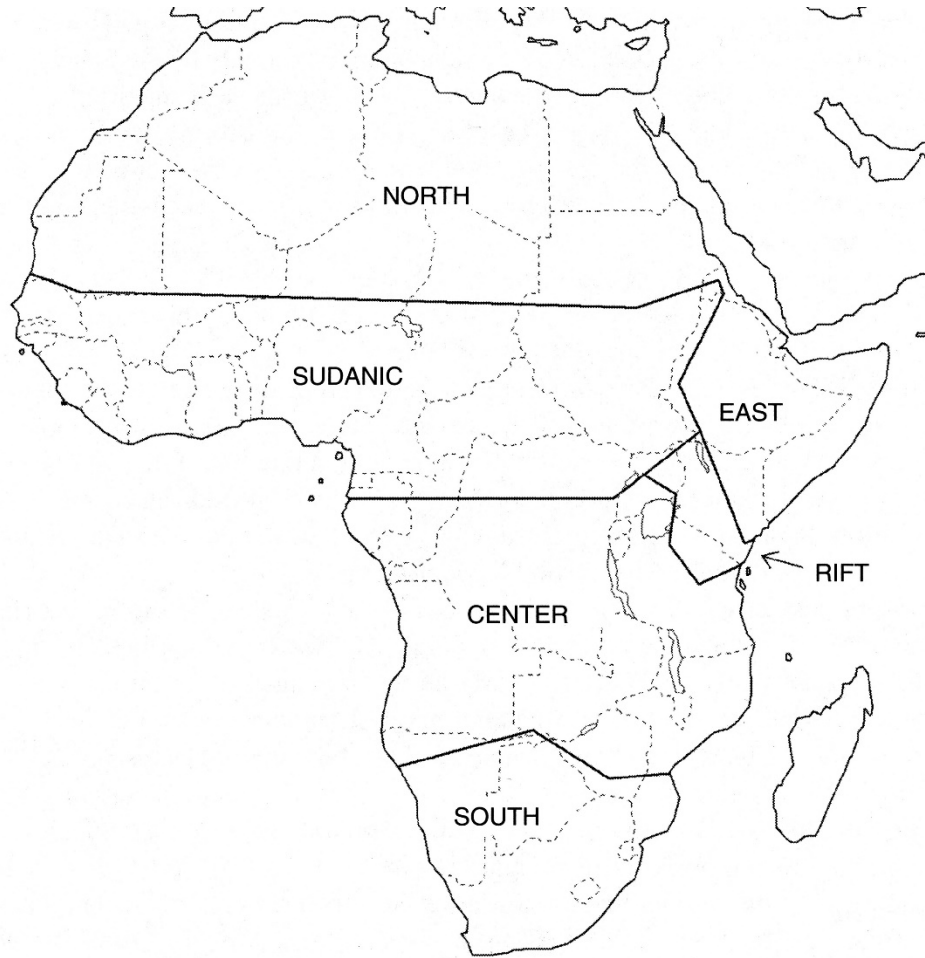
Table 1: Scalar levels in the analysis of linguistic contact (Muysken 2007, 2008: 5)

2 Macro-areas in Africa

2.1 Recent state of the art

- first more comprehensive research by Greenberg (1959, 1983) and Heine (1975, 1976)
- resumed independently by Güldemann (e.g., 1998, 1999, 2001, 2003, 2005, 2008, 2010) and Clements and Rialland (2008)
- > considerably similar results of proposed macro-areal feature aggregations before recent large-scale colonizations

2.1 Recent state of the art



Clements and Rialland (2008)



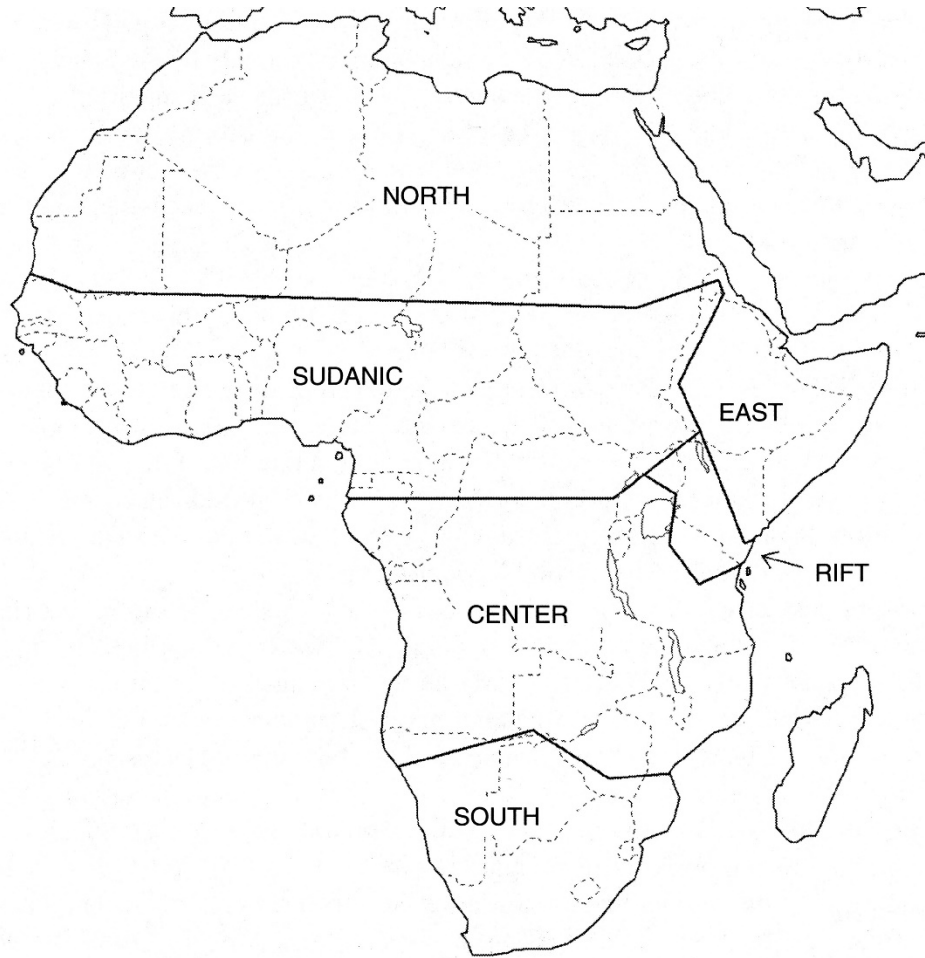
Notes: I Sahara spread zone, II Chad-Ethiopia, III Macro-Sudan belt, IV Bantu spread zone, V Kalahari Basin

Güldemann (2010)

2.2 Characteristics of macro-areas

- special conceptualization of the concept of macro-area and its wider territorial environment (Güldemann 2010: 576):
 - a) no necessary reconstruction of contact history (see Muysken 2007)
 - > scenarios crucially include both “horizontal” borrowing through space and “vertical” shift-induced substrate interference through time
 - b) no either-or membership of languages/lineages, rather gradient of affiliation
 - c) distinction of core vs. periphery: represented by purely symbolic rather than substantive area-internal differentiation by shade
 - > **no geographically describable, exact area “boundaries”**, hence represented in indeterminate fashion as quasi-featureless zones

2.1 Recent state of the art



Clements and Rialland (2008)



Notes: I Sahara spread zone, II Chad-Ethiopia, III Macro-Sudan belt, IV Bantu spread zone, V Kalahari Basin

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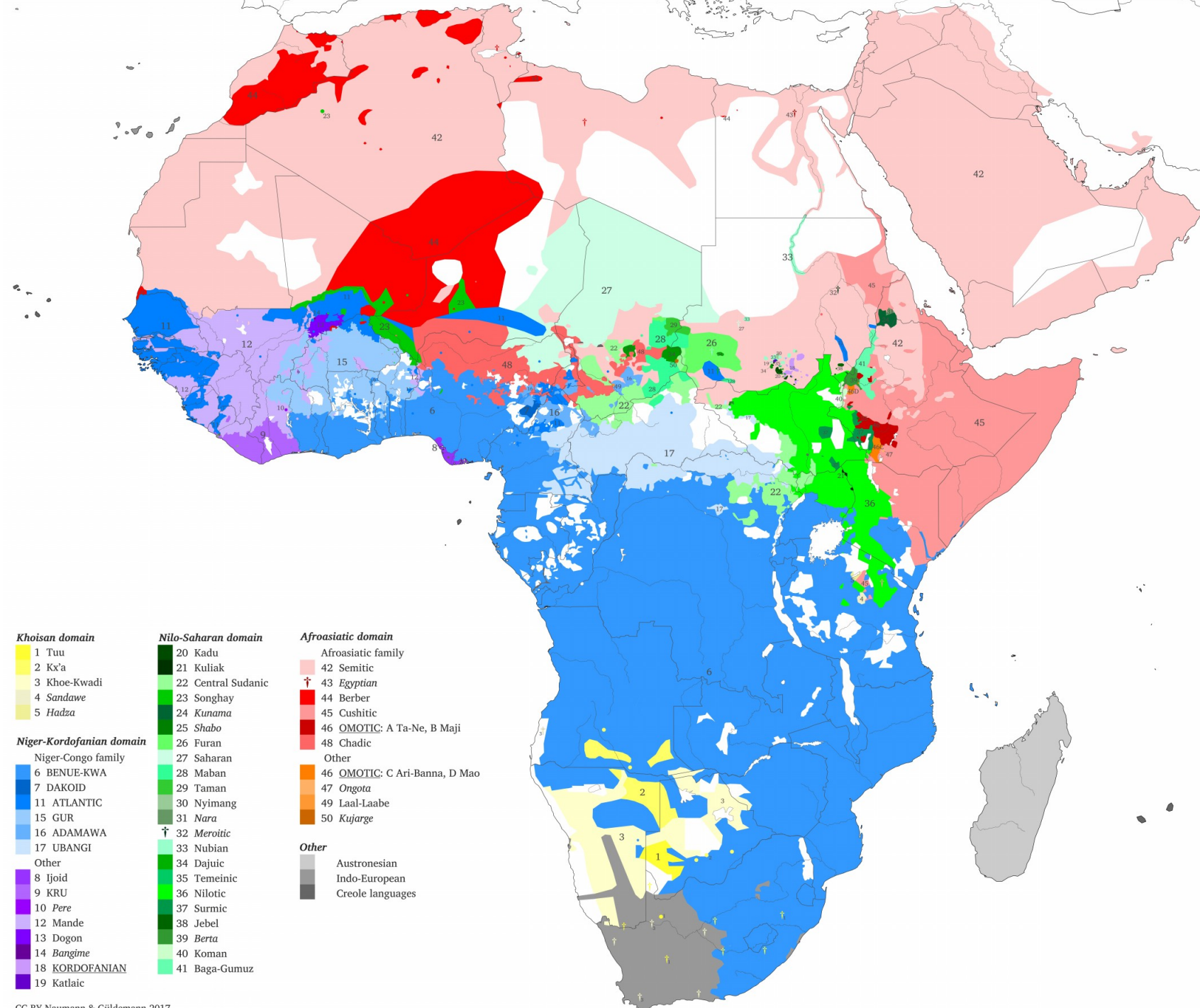
2.3 An update

2.3.1 Genealogical linguistics

- historical interpretation of large-scale areal linguistic patterns is contingent on the genealogical language classification in the given geographical space
 - Greenberg's (1963) classification with 4 African "families" widely accepted but not robust (e.g., Campbell and Poser 2008)
 - review of state of language classification by Güldemann (forthcoming b), oriented to standard criteria (e.g., Nichols 1996, Campbell 2003)
- > genealogically far more diverse picture (see Map 3, Table A1):
- 2 large families: Niger-Congo, Afroasiatic
 - 3 intermediate families: Central Sudanic, Nilotic-Surmic, Mande
 - 35+ units (>12 singletons) without convincing affiliation

2.3 An update

2.3.1 Genealogical linguistics



Güldemann
(forth. b)

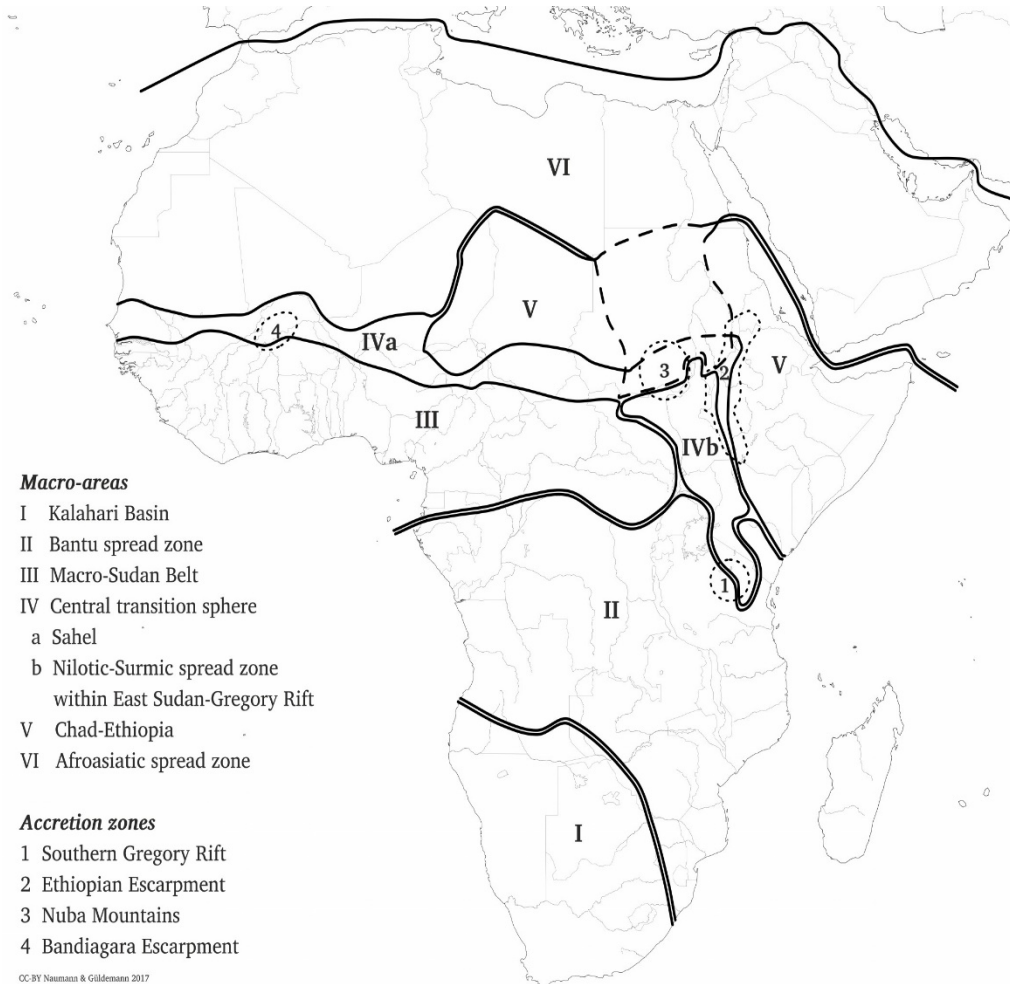
2.3 An update

2.3.1 A new macro-areal profile for Afrabia

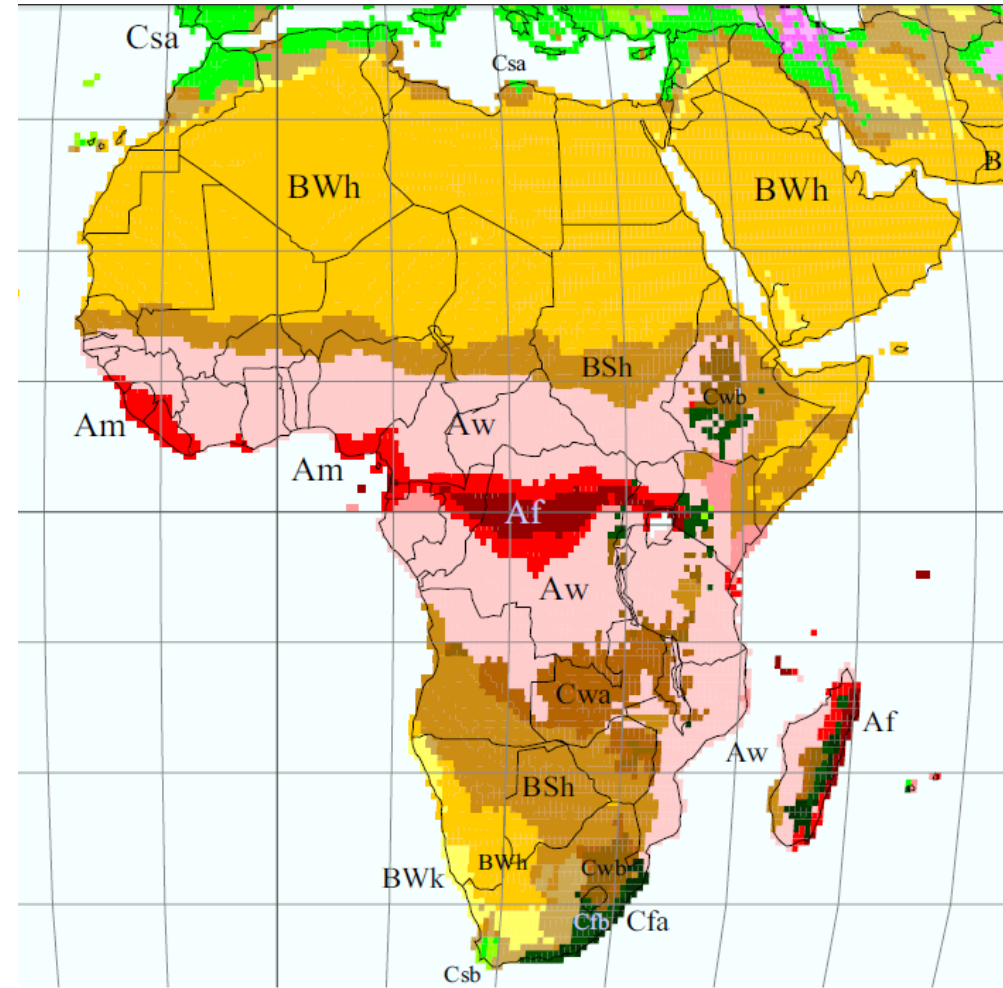
- external separation and internal partition:
- new: **continent-sized unit “Afrabia” = Africa + Arabian Peninsula**
 - behaves internally as a unit
 - bounded by Southwest Asian transition zone (cf. Haig 2017, Haig and Khan forth.)
- old: two spread zones II, VI vs.
three contact-related macro-areas I, III, V (see Tables A2-4)
- new: **transition sphere IV with two subareas** (separate III from V/VI)

2.3 An update

2.3.1 A new macro-areal profile for Afrabia



Güldemann (forthcoming a)



Kottek et al. (2006)

2.3 An update

2.3.1 A new macro-areal profile for Afrabia

- considerable overlap with geographical-climatic macro-conditions (Kottek et al. 2006):

B = Arid south: I Kalahari Basin

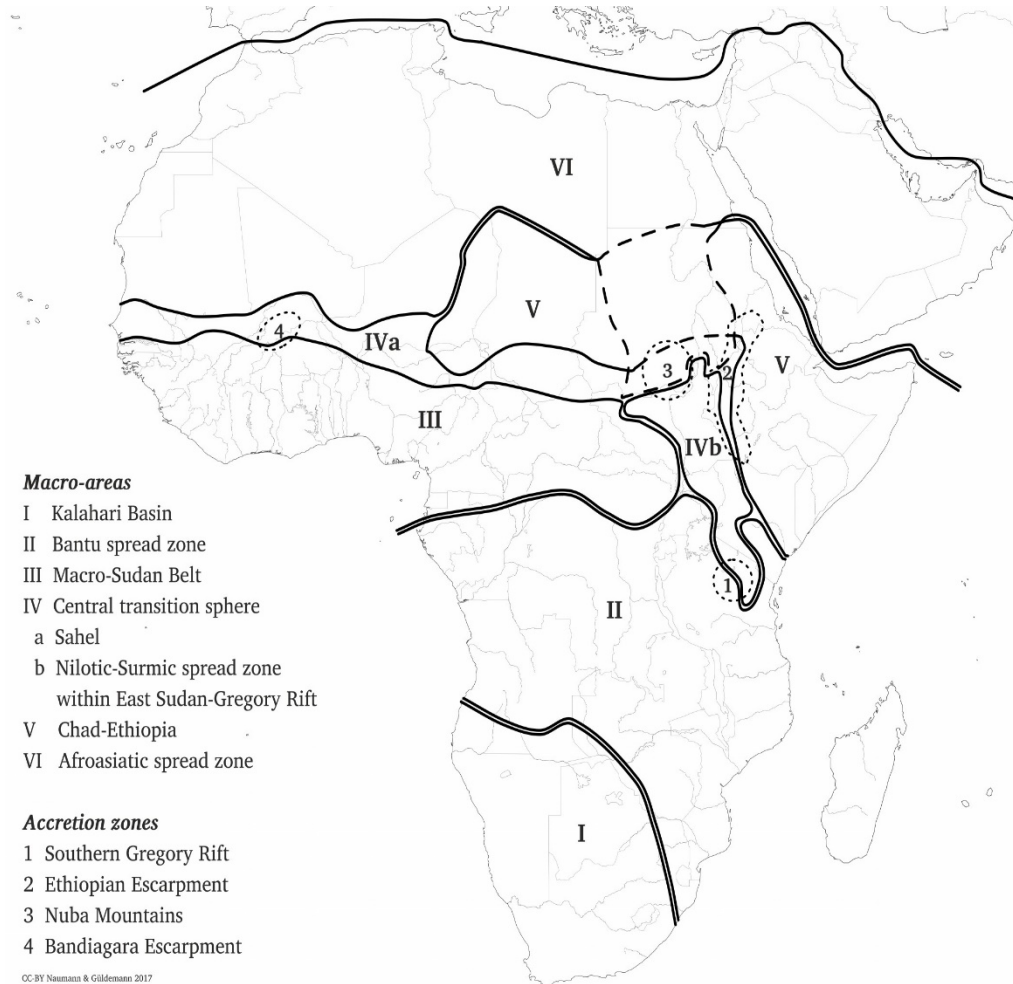
A = Equatorial: II Bantu spread zone, III Macro-Sudan belt, IVb East Sudan-Gregory Rift

B = Arid north: IVa Sahel, V Chad-Ethiopia, VI Afroasiatic spread zone

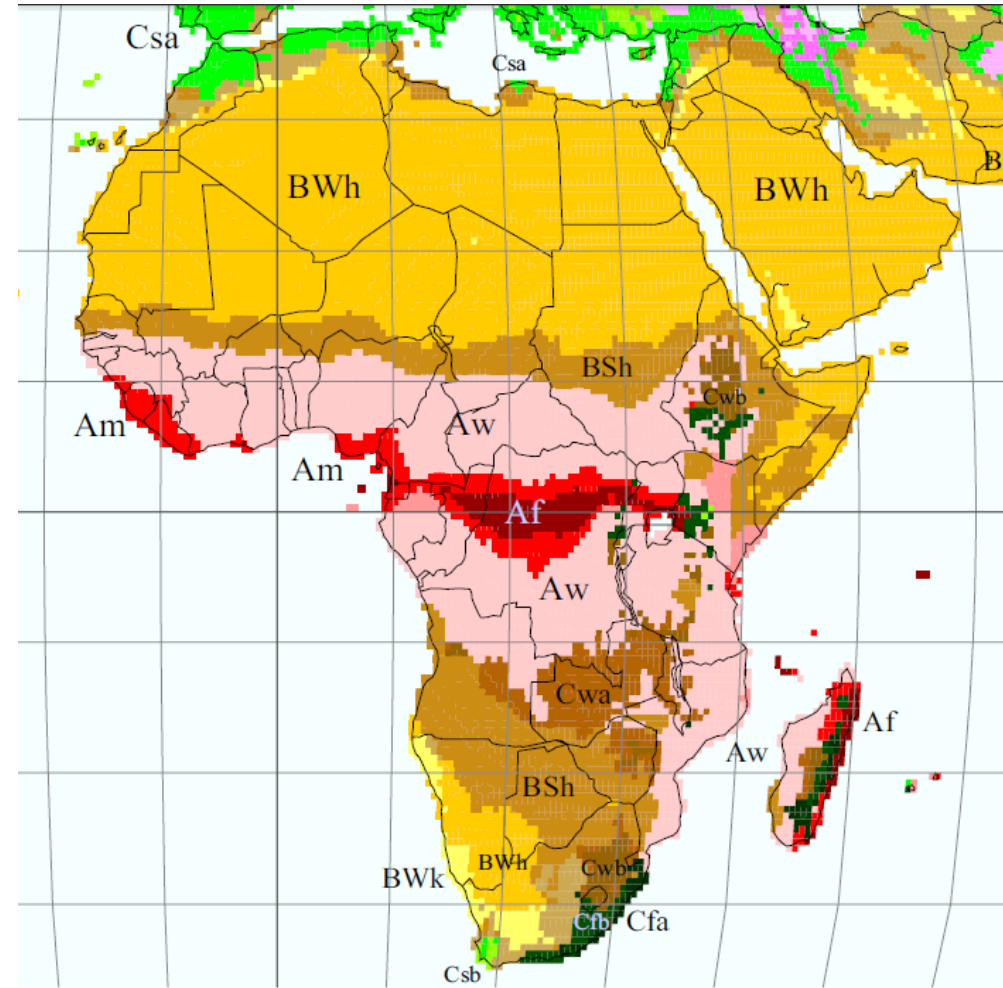
- major caveats:
 - feature distributions to be tested for statistical significance
 - macro-areas only temporal and partly asynchronous snapshots

2.3 An update

2.3.1 A new macro-areal profile for Afrabia



Güldemann (forthcoming a)

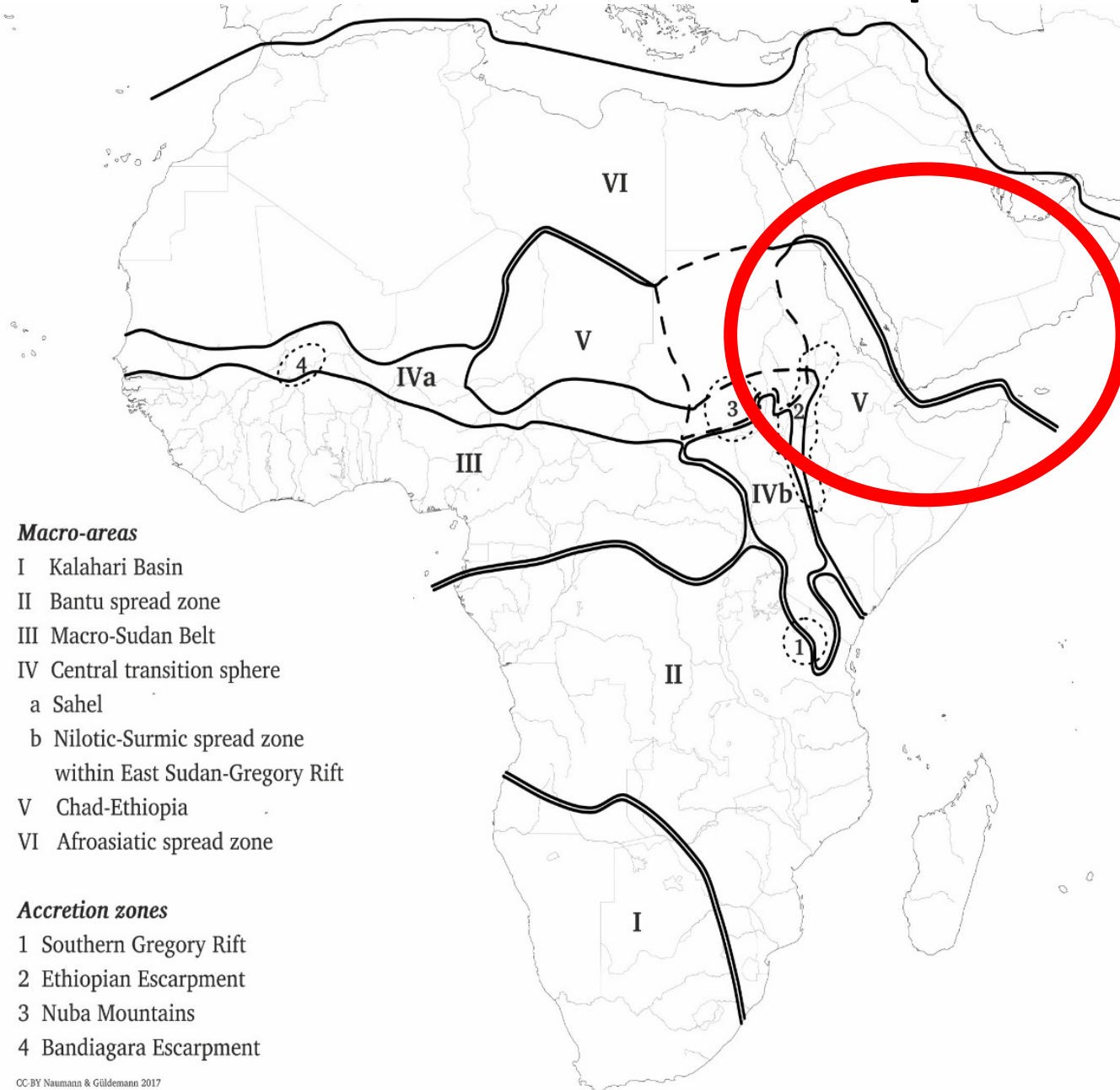


Kottek et al. (2006)

3 Macro-areal “boundaries” in Africa

- Güldemann (forth. b) only apparently reverts back to line-like boundaries
- > goal here: determine diverse character of “boundaries” by four test cases that are geographical spaces with their own linguistic dynamics
- to be characterized as follows:
 - a) macro-areal location
 - b) geography
 - c) linguistic ecology
 - d) linguistic structural profile
 - e) population and language dynamics
 - f) “boundary” character

3.1 The Red Sea-Gulf of Aden as a plain boundary



3.1 The Red Sea-Gulf of Aden as a plain boundary

- a) gulf-type ocean water bodies between Horn of Africa and Arabian Peninsula with Bab al-Mandab Strait as one narrowing
 - > separates northeastern flank of V Chad-Ethiopia from VI Afroasiatic spread zone
- b) traversable sea containing a few small islands
- c) n.a., without major settlement except for one geographically peripheral island with separate South Arabian language Soqotri

3.1 The Red Sea-Gulf of Aden as a plain boundary

d) n.a. (Soqotri = canonical South Arabian)

e) South Semitic crossing from Arabia into Horn of Africa as major population event

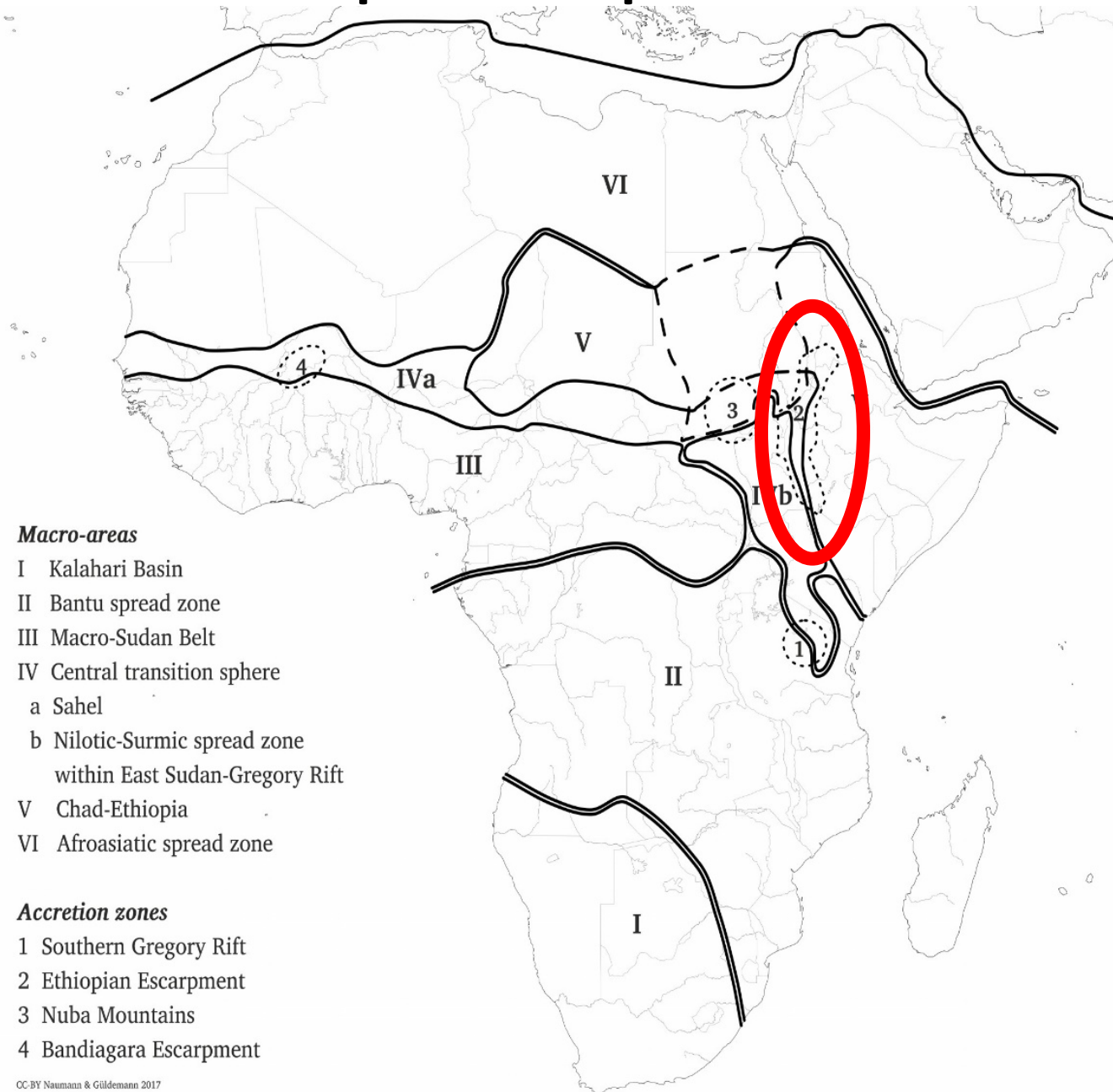
- shift of colonizing Semitic to local Ethiopian profile primarily due to substrate interference from (remotely related) Cushitic languages

> shift-induced emergence of Ethiosemitic

- hardly any affinities between macro-areas beyond genealogical isoglosses of Semitic-Cushitic (cf. Simeone-Senelle & V. 2006)

f) quite canonical “boundary” between two macro-areas in terms of both geography and linguistics

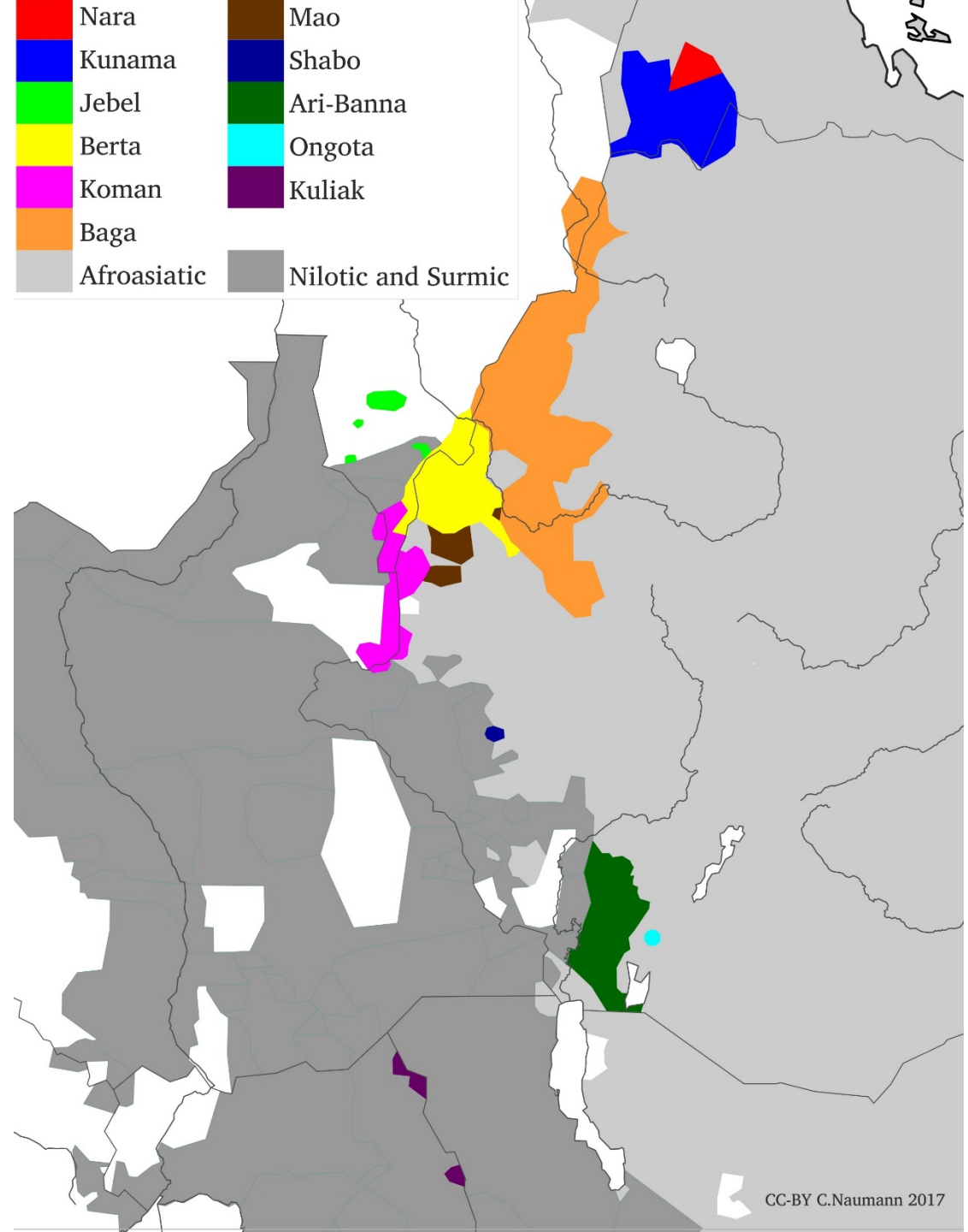
3.2 The Ethiopian escarpment as an accretion zone



3.2 The Ethiopian escarpment as an accretion zone

- a) longitudinal transition zone between the Ethiopian Plateau and the western lowlands stretching from Eritrea in the north to the northern edge of Lake Turkana in the south
 - > separates one part of eastern flank of V Chad-Ethiopia from Nilotic-Surmic spread zone as part of IVb East Sudan-Gregory Rift
- b) marked escarpment topography entailing altitude differences and including partly preserved lowland and montane rainforests
 - also traced by national borders between Eritrea+Ethiopia and Sudan+South Sudan
 - nevertheless, no real barrier for population movement

3.2 The Ethiopian escarpment as an accretion zone



Note: white areas = water bodies,
uninhabited or other
languages not of concern

3.2 The Ethiopian escarpment as an accretion zone

c) exceptionally high ethno-linguistic diversity (cf. Bryan 1945):

- arguably exceeds that of the Nuba Mountains in the south of Sudan

- mostly endemic “remnant” lineages (Grottanelli 1948, 1966)

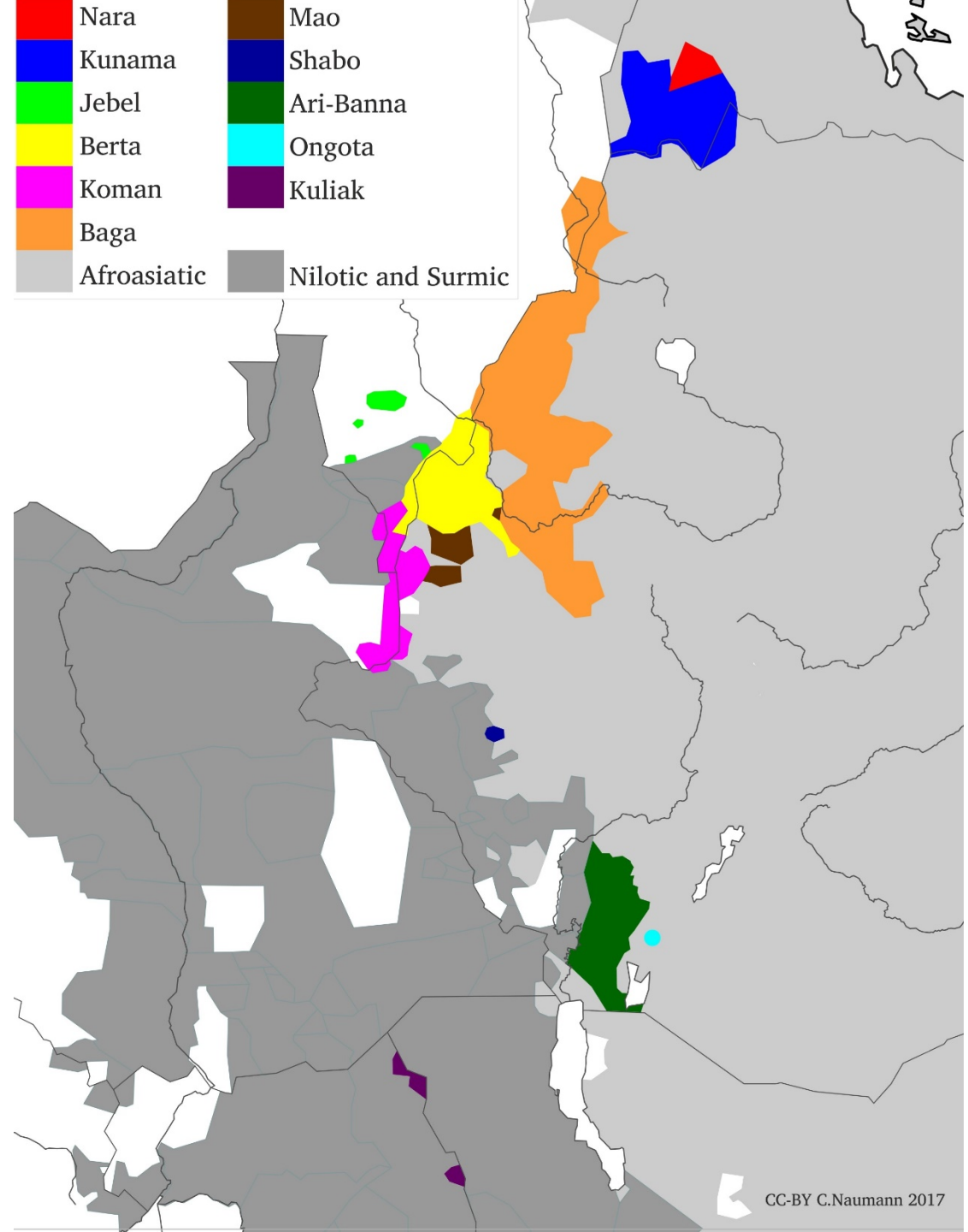
> linguistic accretion zone in terms of Nichols (1992, 1997)

Lineage type	Eastern “face” with head-final syntax	Western “face” with head-initial syntax	No.
Endemic isolate	<i>Kunama, ? Nara, Mao, Shabo, Ari-Banna, Ongota</i>	Jebel, <i>Berta</i>, Koman, Baga	10/9
Endemic isolate in larger family	Ta-Ne + Maji (of Afroasiatic), <i>Nara</i> (?of Wadi Howar)	-	2/3
Colonizing	Cushitic (notably Oromo) (of Afroasiatic)	Arabic (of Afroasiatic); Nilotic-Surmic	3
Unclassifiable	-	<i>Gule</i>	7
	<i>Dima of Bottegò, Dume, Funj, Gomba, Mangio, Tamma*</i>		

Notes: *Single language*, * syntax unknown, **Core with few external structural links**

Table 2: Linguistic lineages of the Ethiopian Escarpment

3.2 The Ethiopian escarpment as an accretion zone



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3.2 The Ethiopian escarpment as an accretion zone

- d) Bryan (1945): “linguistic no-man's land”, today poorly documented
 - high structural diversity across various local lineages
 - “janus-headed” orientation with eastern and western “face”:
- e) intensive population and language contact and partly movement
 - > confusing ethnic categorizations (cf., e.g., James 1981, Küspert 2015)
 - Encroachment both “downhill” and “uphill”
 - > no obvious trend of dissolving the wider linguistic east-west divide
- f) relatively well defined geographical profile due to topography
 - core marginalized “spillover” of eastern and western neighborhood
 - > robust “boundary” between two macro-areas - shapes Chad-Ethiopia

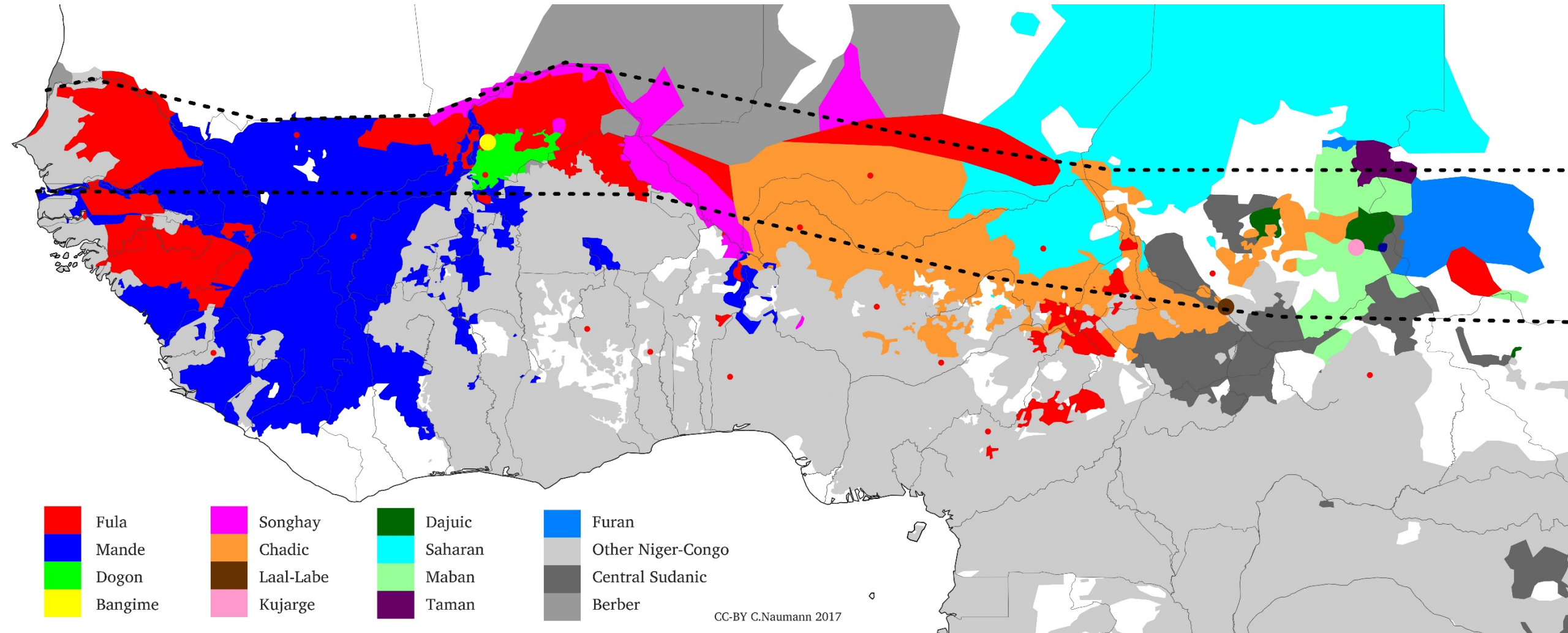
3.3 The Sahel as a transition area



3.3 The Sahel as a transition area

- a) wide territorial band spanning from the Atlantic eastward, geographically up to Ethiopian Escarpment but linguistically with fuzzy picture east of Lake Chad > focus on western part
- > separates northern flank of III Macro-Sudan belt from VI Afroasiatic spread zone
- b) marked by climatic conditions (cf. BSh in Kottek et al. 2006)
 - no shape-tracing or interruptive topographic landmark(s) but locally important physical features - from east to west: Bandiagara Escarpment, Niger River bend, Lake Chad Basin
 - no barrier for crossing and other movement, but like a movement-conducive corridor (Fula!)

3.3 The Sahel as a transition area



Note: white areas = water bodies, uninhabited or other languages not of concern

3.3 The Sahel as a transition area

c) linguistically diverse but over a large territory

- diversity level intermediate between neighboring macro-areas

- vehiculars: Fula, Manding, Zarma, Hausa, Kanuri

- several lineages with presence in neighboring macro-areas

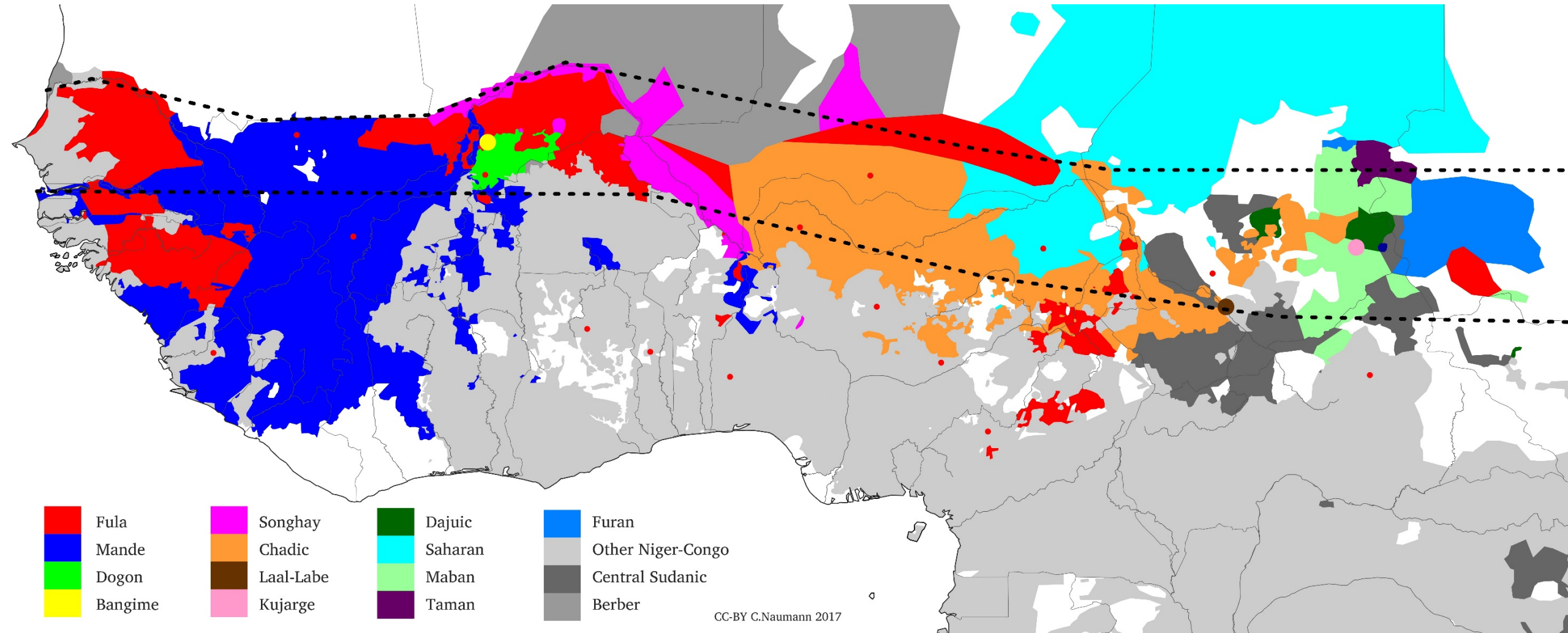
- from Lake Chad eastward lineages of Chad-Ethiopia and Macro-Sudan

Lineage type	Head-final syntax	Head-initial syntax	No.
Endemic isolate	Dogon	<i>Bangime, Laal-Labe, Kujarge, Dajuic</i>	5
Also in VI	-	Songhay	-
Also in III	(Mande)	<i>Fula</i> of Niger-Congo, Songhay, Chadic	4
Aligned in East with other area	V: Saharan, Maban, Taman, Furan	III: Central Sudanic, other Niger-Congo	4
Unclassifiable	<i>Mige, Mimi of Decorse, Mimi of Nachtigal</i>		3

Notes: *Single language*, **Lineage with diversity according to macro-area**

Table 3: Linguistic lineages of the Sahel (Güldemann forthcoming b)

3.3 The Sahel as a transition area



Note: white areas = water bodies, uninhabited or other languages not of concern

3.3 The Sahel as a transition area

d) no area-wide features and moderate structural diversity

- multiple macro-areal presence of lineages correlates with profile

e) considerable dynamics, notably by “active” languages

- latitudinal expansions and interaction: Fula, Manding, Songhay, Hausa

- > large empires partly replacing each-other - chain of contact settings

- longitudinal immigration from north vs. emigration southward

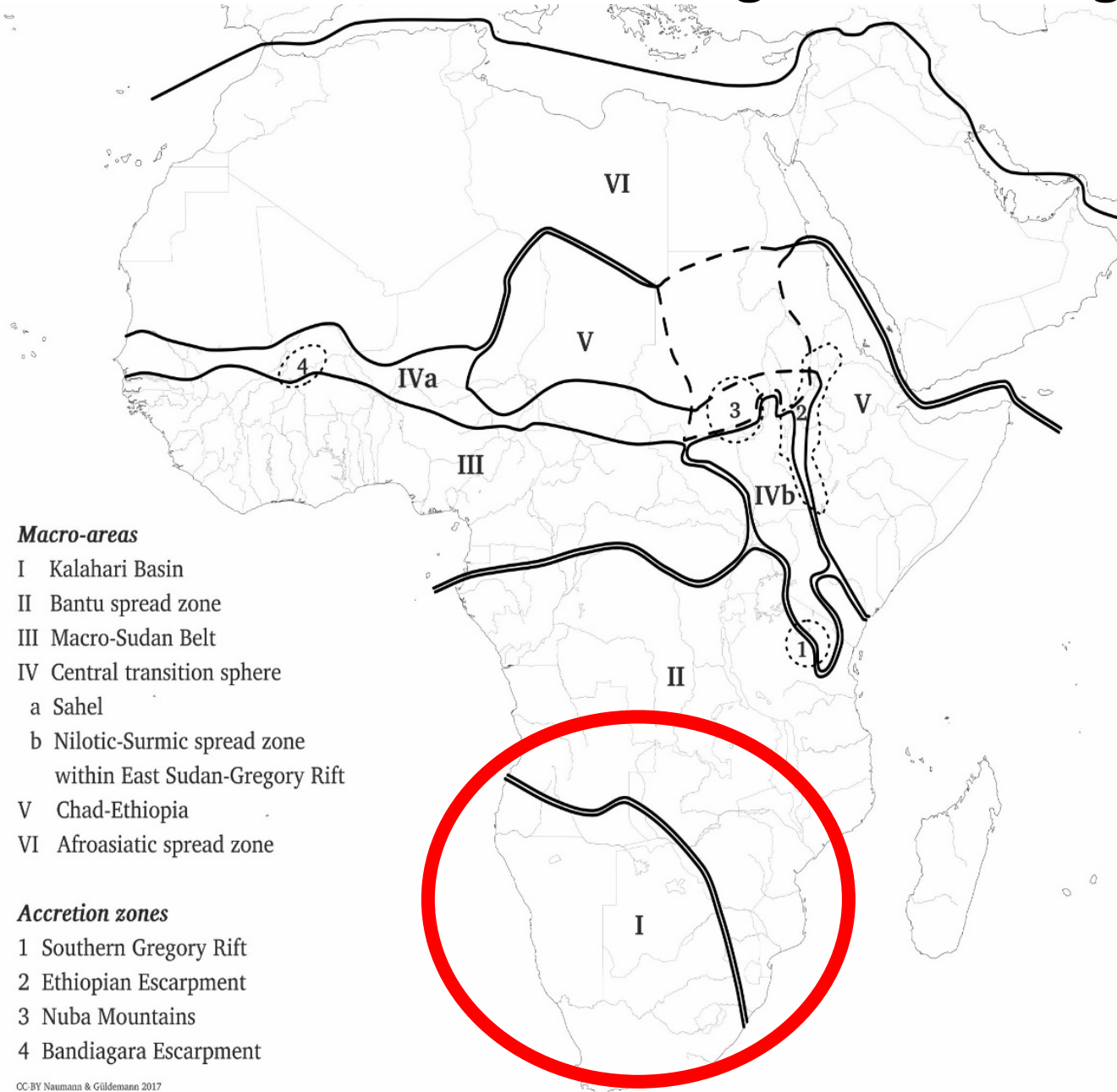
- topographic landmarks as internal contact foci: Lake Chad Basin

f) differs from neighborhood by linguistic ecology and lack of unity

- climatically induced by latitude gradient (Güldemann and Ha. forth.)

- > permeable/dissolvable transition zone between other latitude areas

3.4 The southern Bantu fringe as a moving linguistic frontier



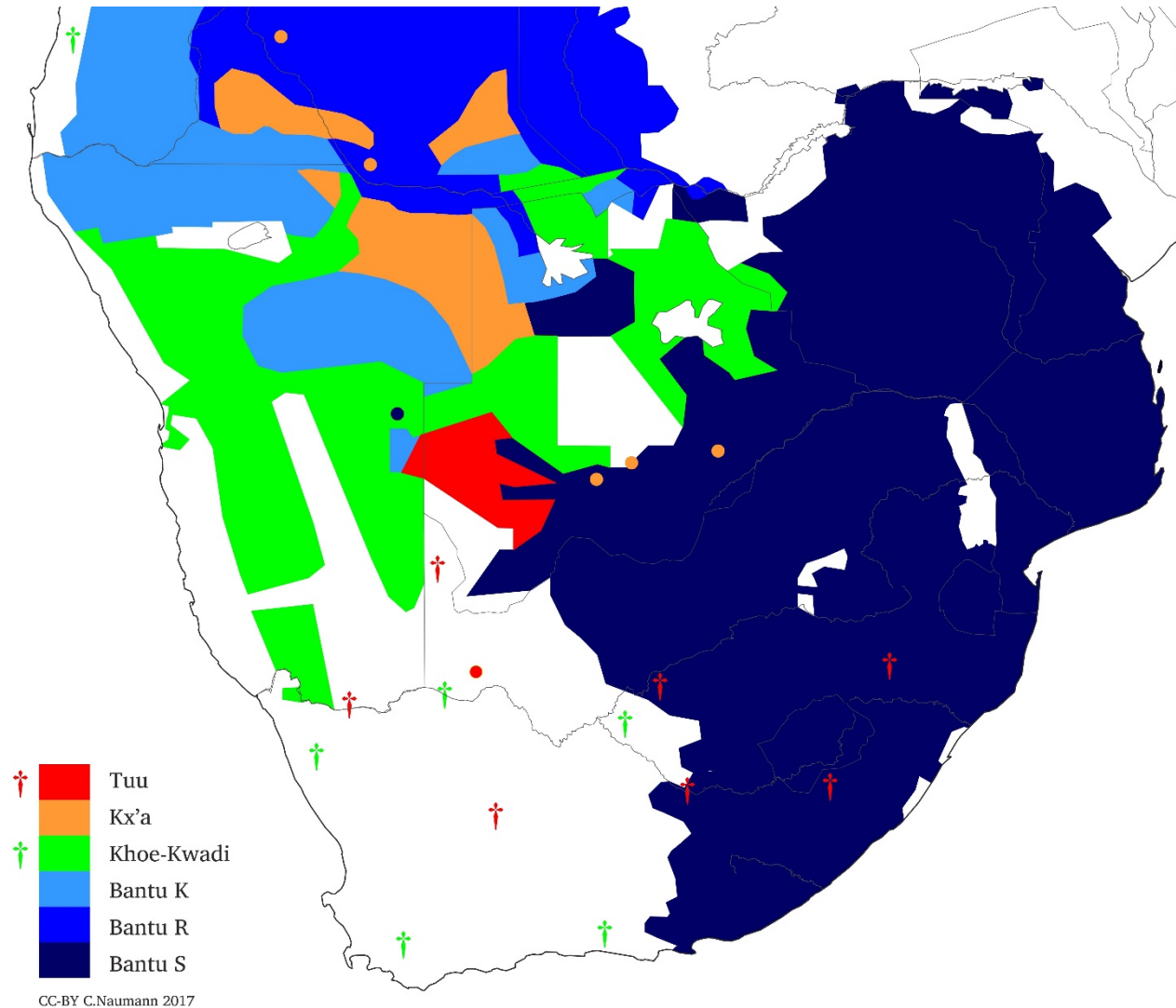
3.4 The southern Bantu fringe as a moving linguistic frontier

- a) traces the south(west)ern border regions of Angola, Zambia, Zimbabwe and then south through eastern part of South Africa
- > “separates” I Kalahari Basin from II Bantu spread zone

!!! synchronically no discernible line-like boundary, instead a patchwork where Bantu (and Afrikaans in the southwest) increasingly engulfs “Khoisan” whose rough extension is merely reconstructed by the idealized boundary in Map 2

- b) no salient topographical and environmental barriers
- localized climatically induced differences: various hyper-arid zones in the interior and along west coast, differential rainfall regimes in the South African Cape region (subsistence barrier for Bantu)

3.4 The southern Bantu fringe as a moving linguistic frontier



Note: white areas = water bodies, uninhabited or other languages not of concern

3.4 The southern Bantu fringe as a moving linguistic frontier

c) moderate ethnolinguistic diversity

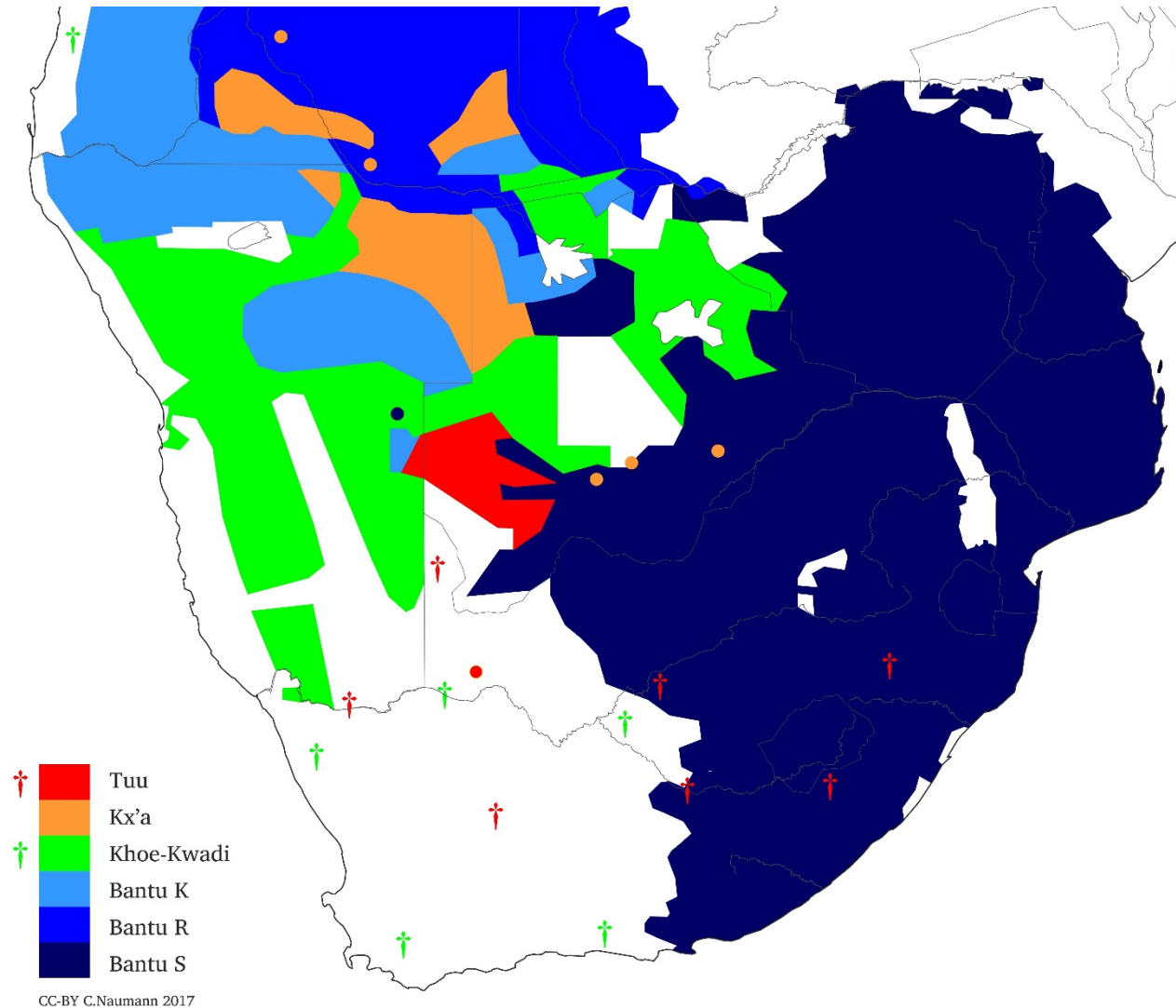
- some languages widespread but with low population density

Lineage type	List	No.
Endemic isolate	Tuu, Kx'a	2
Presumably colonizing	Khoe-Kwadi	1
Colonizing	Bantu of Niger-Congo (of different zones K, R, S); Afrikaans	2

Table 4: Linguistic lineages of the Bantu-“Khoisan” frontier (Güldemann forth. b)

d) no unifying structural profile (substrate features in colonizing lineages only sporadic, see Güldemann and Fehn 2017)

3.4 The southern Bantu fringe as a moving linguistic frontier



Note: white areas = water bodies, uninhabited or other languages not of concern

3.4 The southern Bantu fringe as a moving linguistic frontier

- e) Bantu replacing “Khoisan”, as Khoe with Tuu and Kx’a before
 - Bantu fragmentation: selective migration, territorial leapfrogging
 - latest phase of general process submerging other larger macro-areas:
 - possibly “Southern High Africa” = southern + East Africa (cf. Güldemann 2010)
 - “Southern Africa” = Kalahari Basin + Southeastern Bantu) (cf. Clements & Rialland 2008, Naumann 2016)
- f) hardly any “boundary” character (contra “front(ier)” terminology)
 - > geographically unstructured, moving frontier of a spread zone that replaces a macro-area (itself possibly spread zone before)

4 Macro-areal “boundaries”: a summary

“Boundaries” of macro-areas:

- hardly ever “separate” in the literal sense but rather are permeable/traversable to different degrees
- are typically not static but rather (highly) dynamic
- are recurrently not just by-products of neighboring macro-areas but actively interact with them, partly propelled by own internal forces
- are typically not “line-like” but rather represent areas themselves that seem to differ from other macro-areas first of all by the lack of internally defining linguistic signatures

4 Macro-areal “boundaries”: a summary

- all above characteristics arguably determined first of all by variably marked geographical differentials with respect to both their adjacent macro-area and between each other - this in a scalar fashion:
 - I irregular topographical barriers of varying degrees of permeability:
 - substantial water body 3.1 Red Sea-Gulf of Aden
 - altitude distinction 3.2 Ethiopian Escarpment
 - II regular (latitudinal) climate pattern with typically gradual transition:
 - 3.3 Sahel
 - 3.4 Bantu-“Khoisan” frontier
 - III neither I nor II neither area nor boundary

**Are there similarities , if
metaphorically, to boundaries in
contexts of smaller scales?**