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Currency areas in modern precolonial Africa: New insights from traveller accounts

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26th September, 2024



**Arms
Beads
& Cloth**

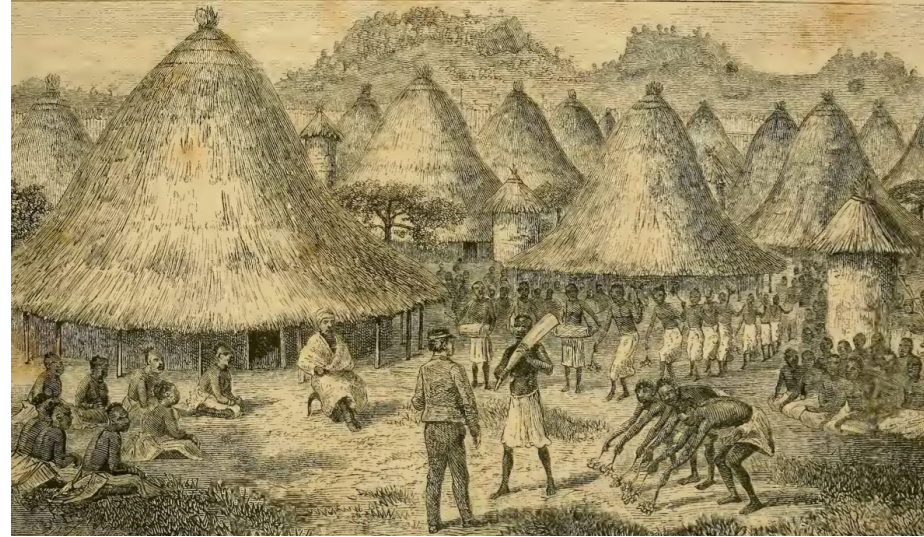
AFRICAN CONSUMERS
AND THE 19TH-CENTURY
GLOBAL ECONOMY



- ¹ University of Luxembourg
- ² University of Bologna
- ³ Stellenbosch University
- ⁴ University of Bozen-Bolzano

Motivation

- Beads were used for exchange and trade in different epochs, and African regions.
- Their circulation shows currency areas and trade connections *within* the continent.
- Exchange is the basis of economic integration & development.
- Beads are therefore our window into these processes.



"Chitapangwa receiving Dr. Livingstone"

Chuma, Susi & H. Waller. "The Last Journals of David Livingstone, in Central Africa, from 1865 to his Death," Vol. I, 1874.

Research Question

What was the regional distribution of beads across Africa over 500 years?

Hypothesis: The distribution of beads across Africa over 500 years shows how pre-colonial African regions were much more connected than previously assumed.

Literature

- Beads as ornaments: “gewgaw myth” (Curtin 1975); “cursory list” (Richardson 1979); “ornament myth” (Pallaver 2019)
- Regional focus (Ogundiran: 2002); (Wood 2012); (Koleini, Colomban, Pikirayi, Prinsloo 2019)
- **However** - Little understanding of their economic role; little quantitative information

Project Relevance

- Collaboration across disciplines and methods.
- Synergetic combination of qualitative and quantitative approaches:
 - Enhanced magnitude and scope of the research;
 - Quantitative insights supported by qualitative regional expertise.
- Beads previously seen only as ornaments, but when viewed as **currency**, then overlapping interests allows for more interdisciplinary collaboration.

Methodology (I)

- A Directory of Travellers Never Existed - **Time Traveller** built one:

Searching three major online repositories:

(**voyage*** OR **exploration*** OR **expedition*** OR **travel*** OR **survey*** OR **excursion***) AND **LOCATION**
AND (date: **1200 TO 1900** OR **NA**) AND (mediatype = **texts**)

where **LOCATION** is defined from a compiled list of historical names of African regions and territories.

- Manually searched several secondary sources to add travellers.
- Corpus contains multiple languages which we translated to English.
- Coded metadata about the traveller and journey.
- State and non-state actors (scientists (16%), military men (15%), missionaries (11%), civil servants (9%), explorers (5%), ...from various nationalities.

Methodology (II)

Dimensions of working corpus

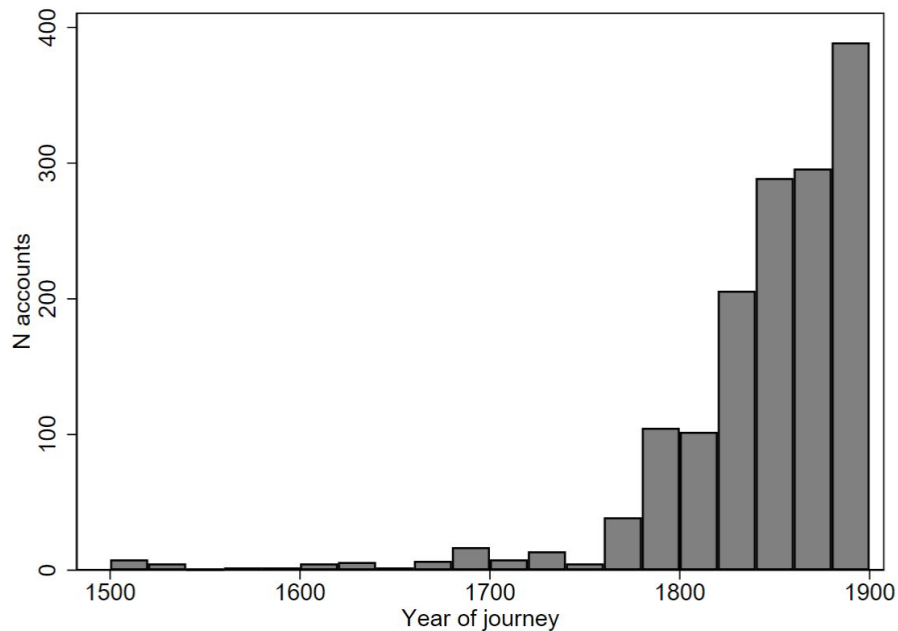
Steps in Building a Corpus	N ⁰	Travellers	Journeys
Directory of Unique Travellers		2,994	–
Library of text from meta search	1,987	–	–
Library of text from manual search	765	–	–
OCR texts uploaded in English	1,314	998	1,187
OCR texts translated to English	846	796	798
Pass all data quality checks	1,783	1,439	1,593

Notes: The number of documents exceeds the number of journeys as some travellers produced more than one volume of text per journey. The same traveller may enter with multiple journeys.

- Approximately 700,000 pages of text
- Approximately 30,000,000 words/token

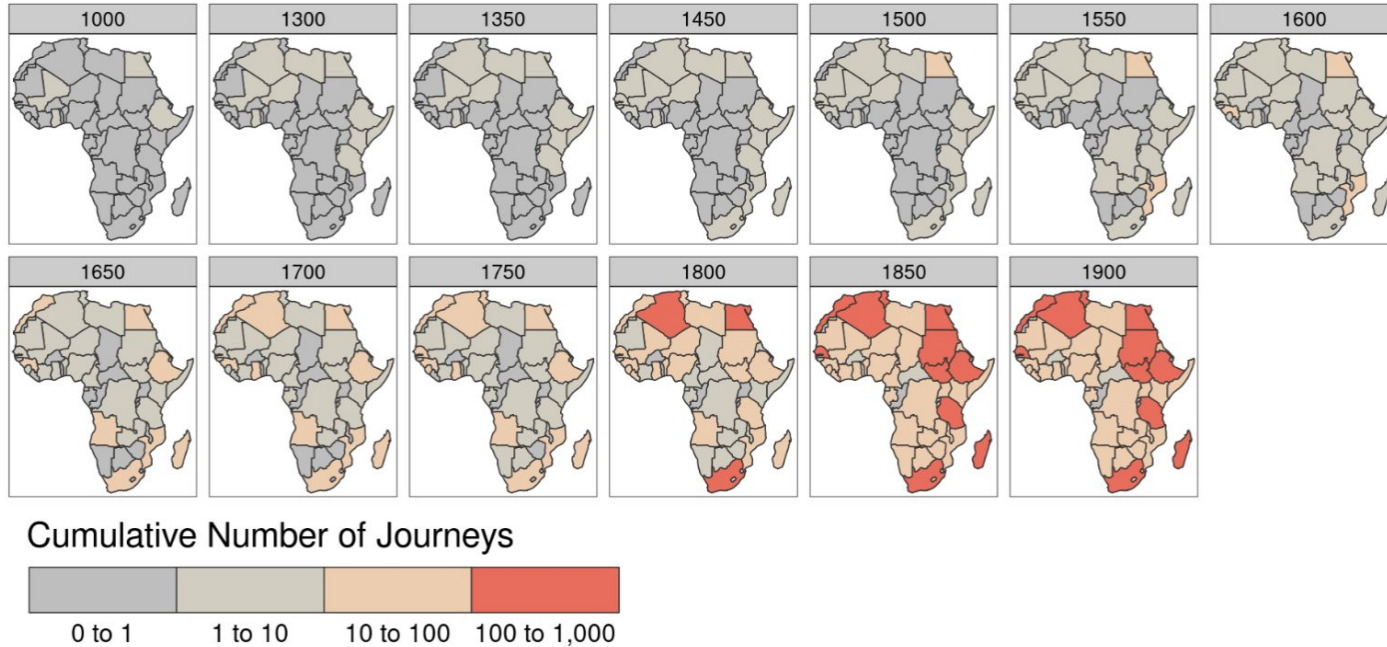
Methodology (III)

Temporal Coverage of Corpus



Methodology (IV)

Spatial Coverage of Corpus



Methodology (V)

Beads Database

- Searched the corpus for the word *bead/s* and a dictionary for *African terms* for beads.
- Search returned ~10,000 observations.
 - Exported database of text `snippet's, full pages - with pre and post 'context' pages, for each observations - and associated metadata.
- Hand coded **14 variables** for each observation.
 - Price, Size, Colour, Location, Function
 - Origin, Shape, Type, Name, Relationship
 - Unit, Ethnic Group, Nature of Exchange, Interaction
- Coded working sample currently contains ~2,000 observations

Function of Beads



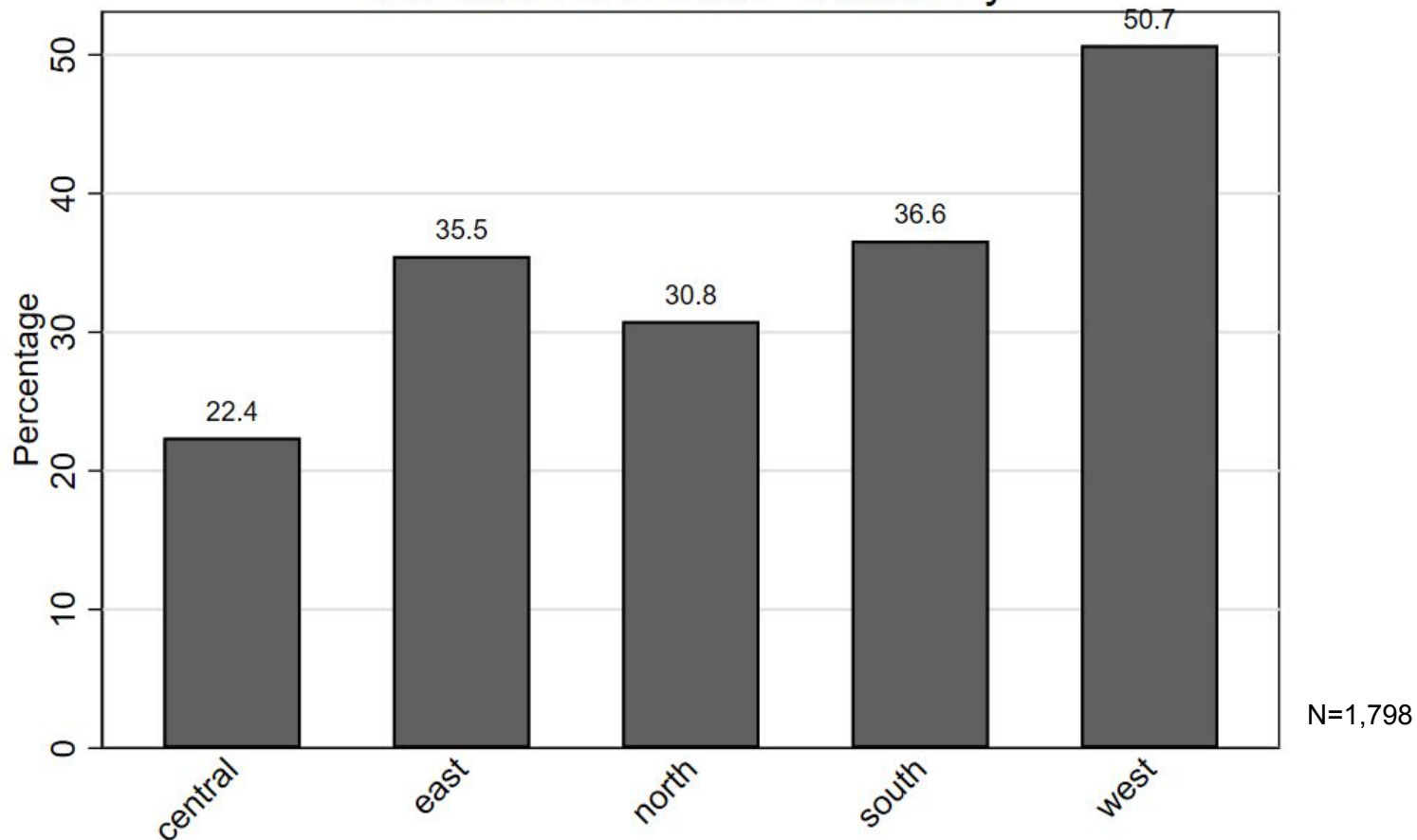
"Turkana Woman"

"A Reshiat Woman"

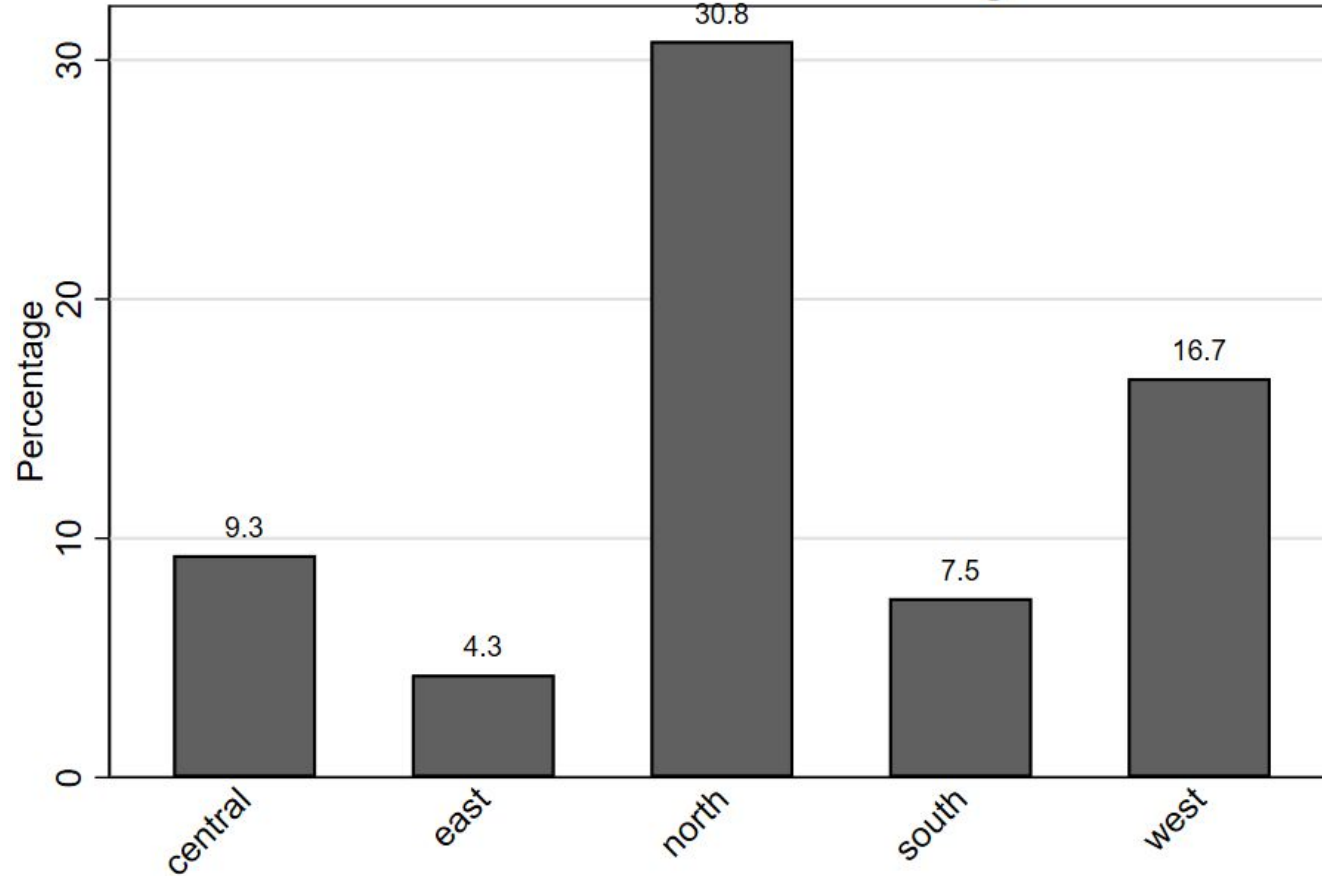
"Ukambani Woman"

S. Teleki & L. von Höhn. "Discovery of Lakes Rudolf and Stefanie," Vol.II, 1887.

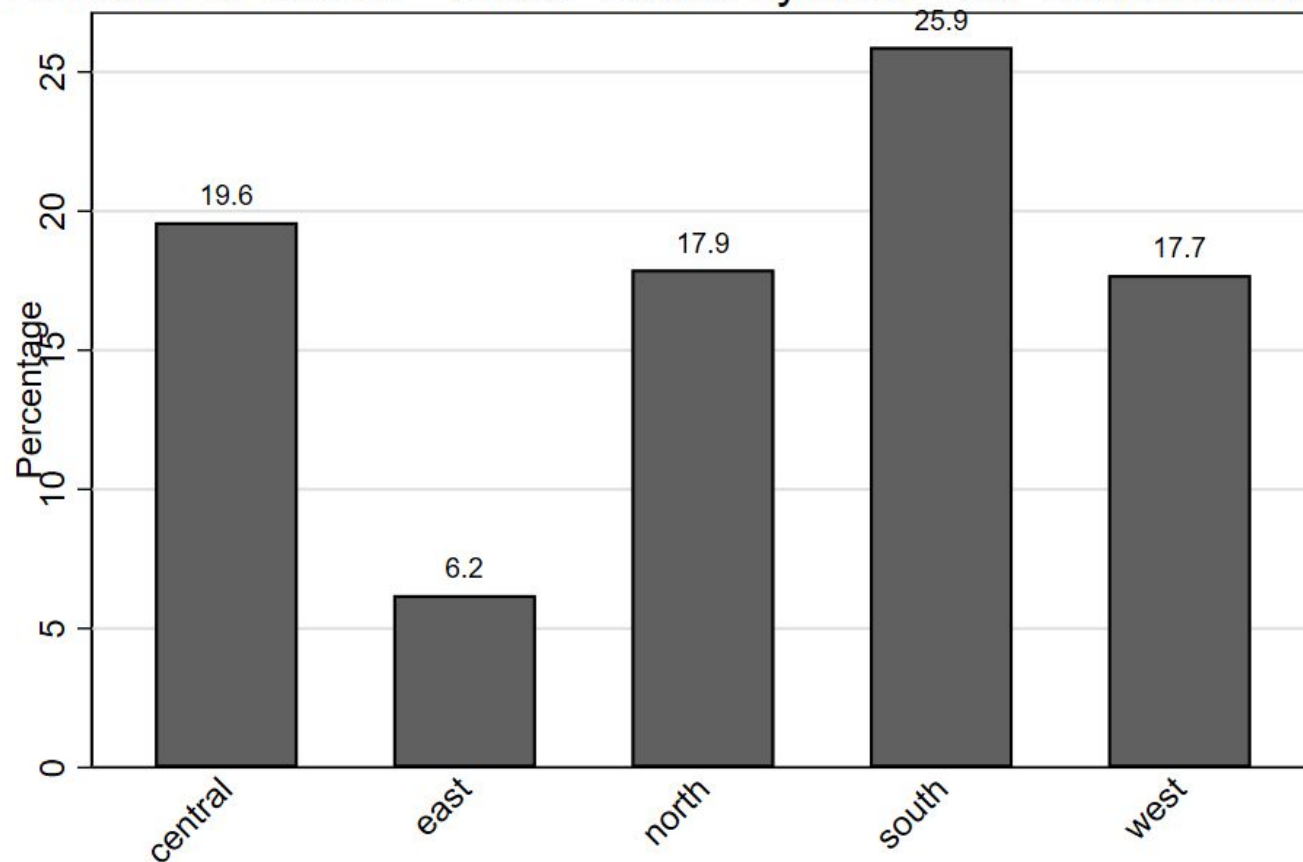
Function of Beads - Jewellery



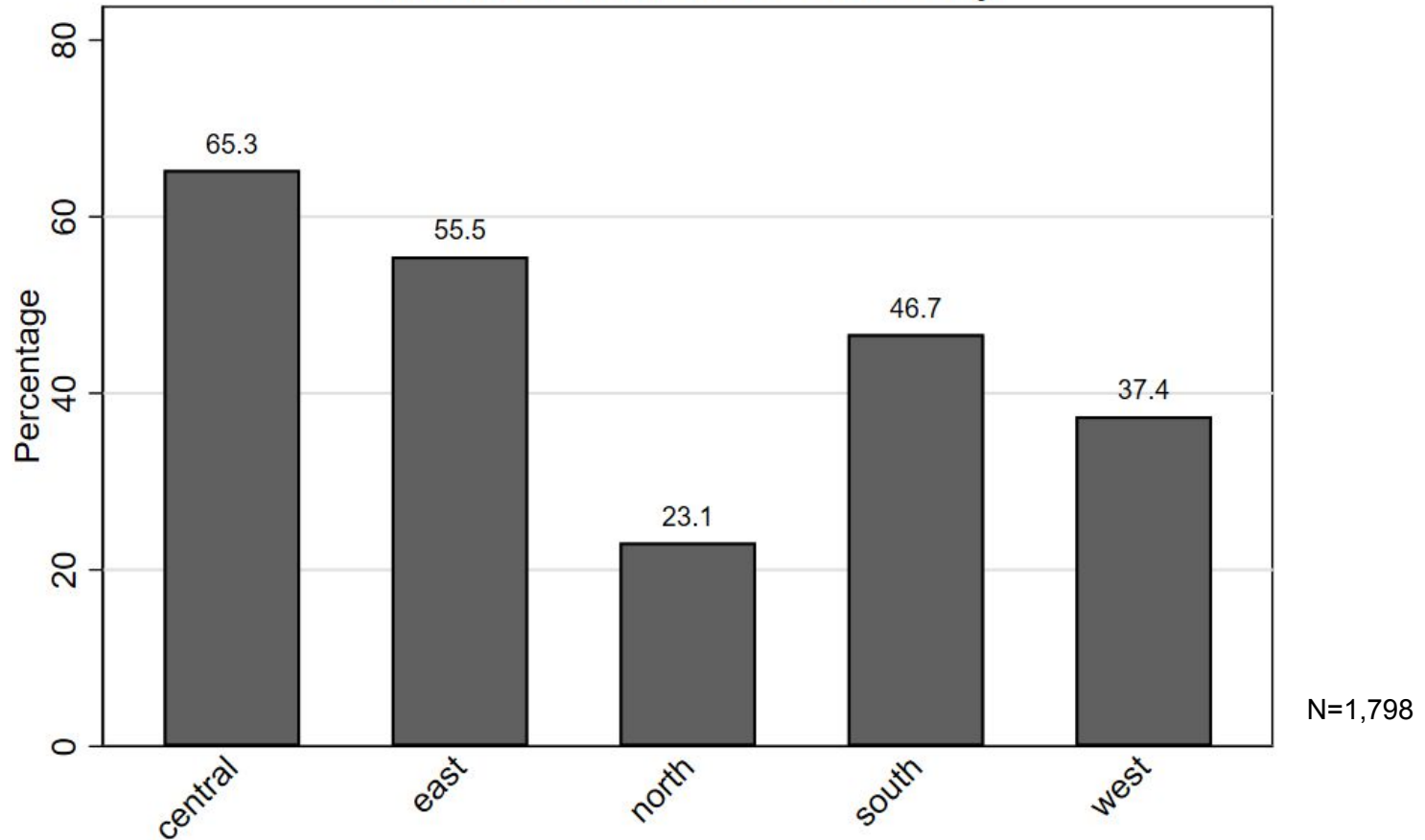
Function of Beads - Ceremonial/Religious/Tribute



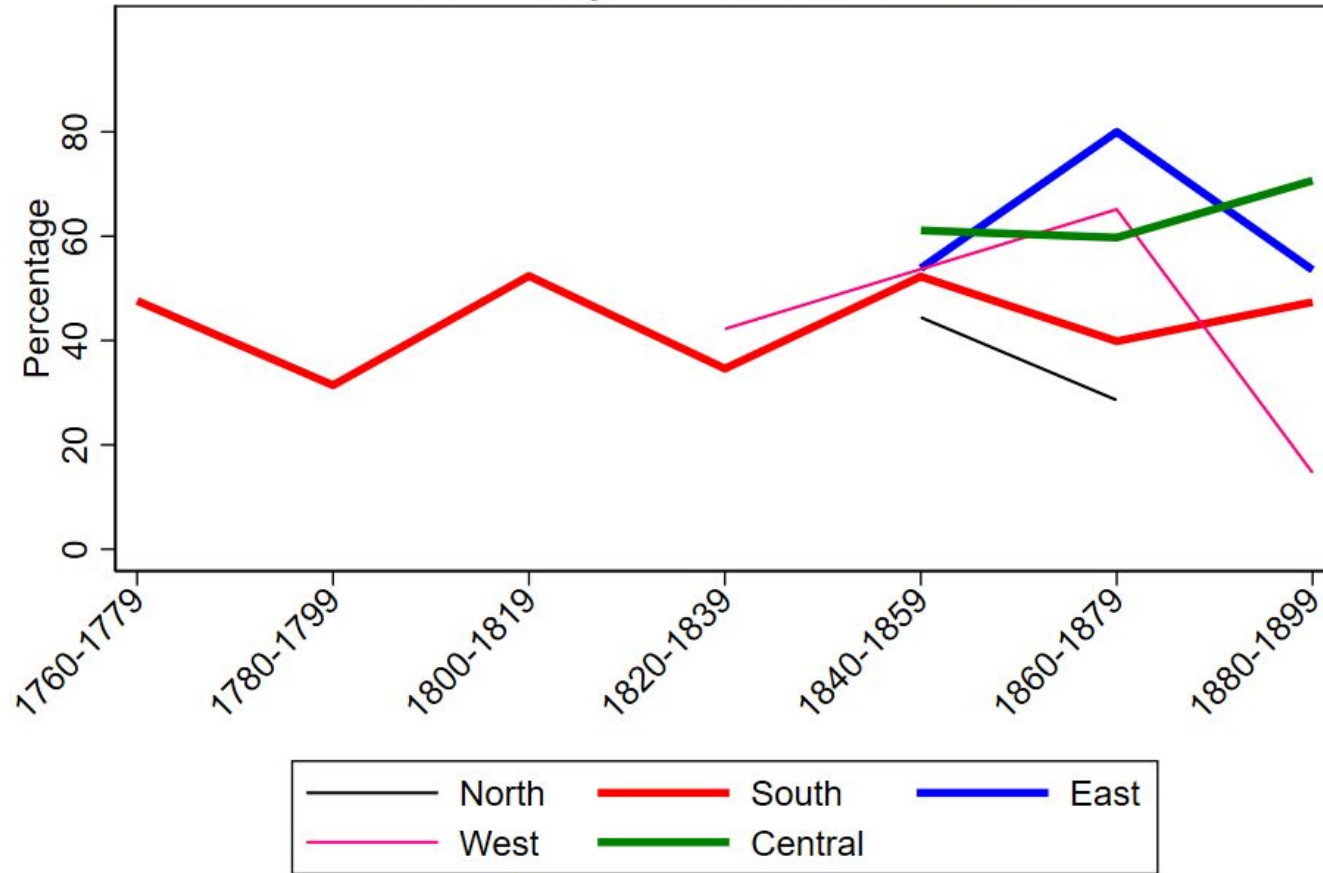
Function of Beads - Class/ Status symbol/ Gift/ Social exchan



Function of Beads - Currency

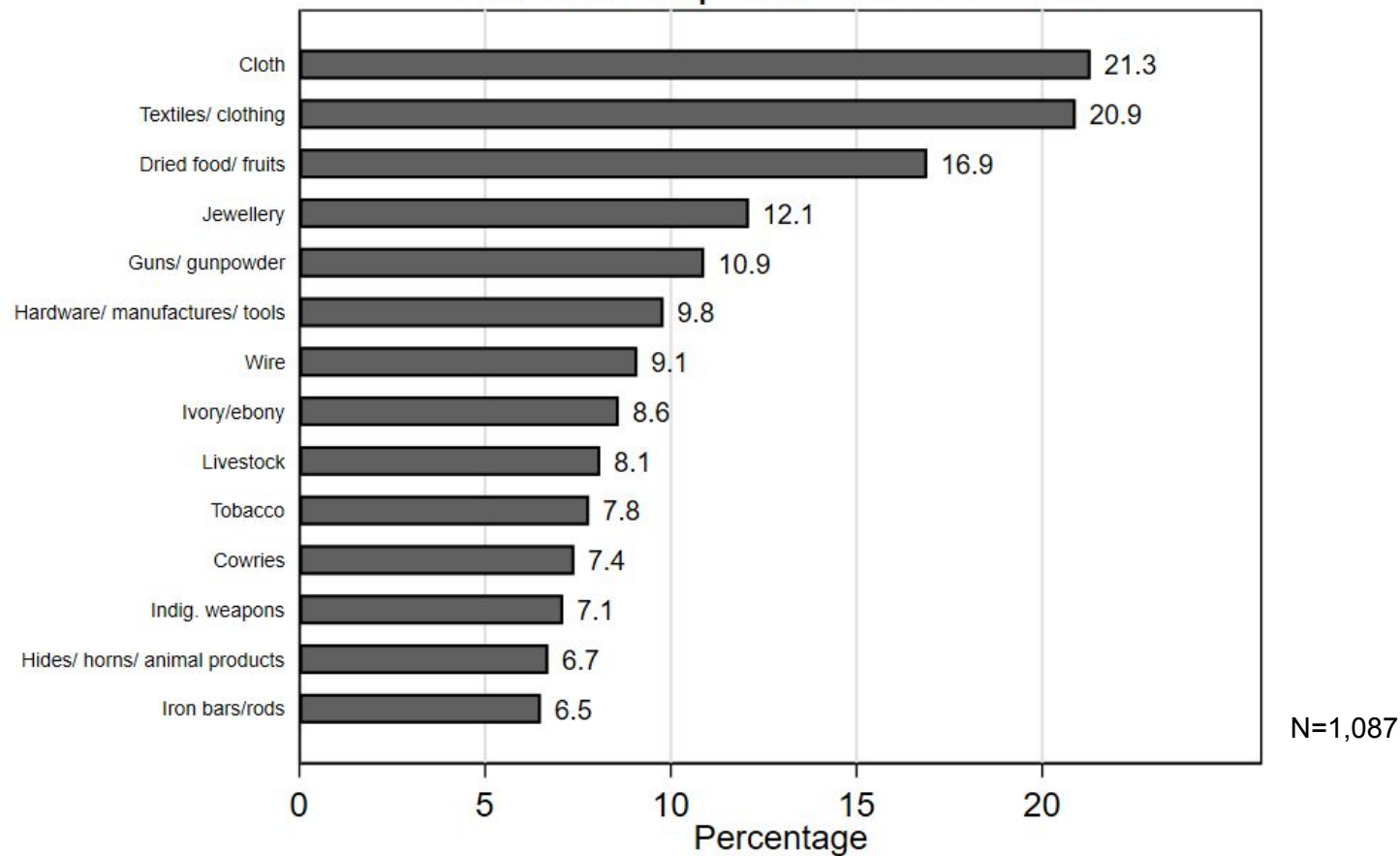


Currency Function over time



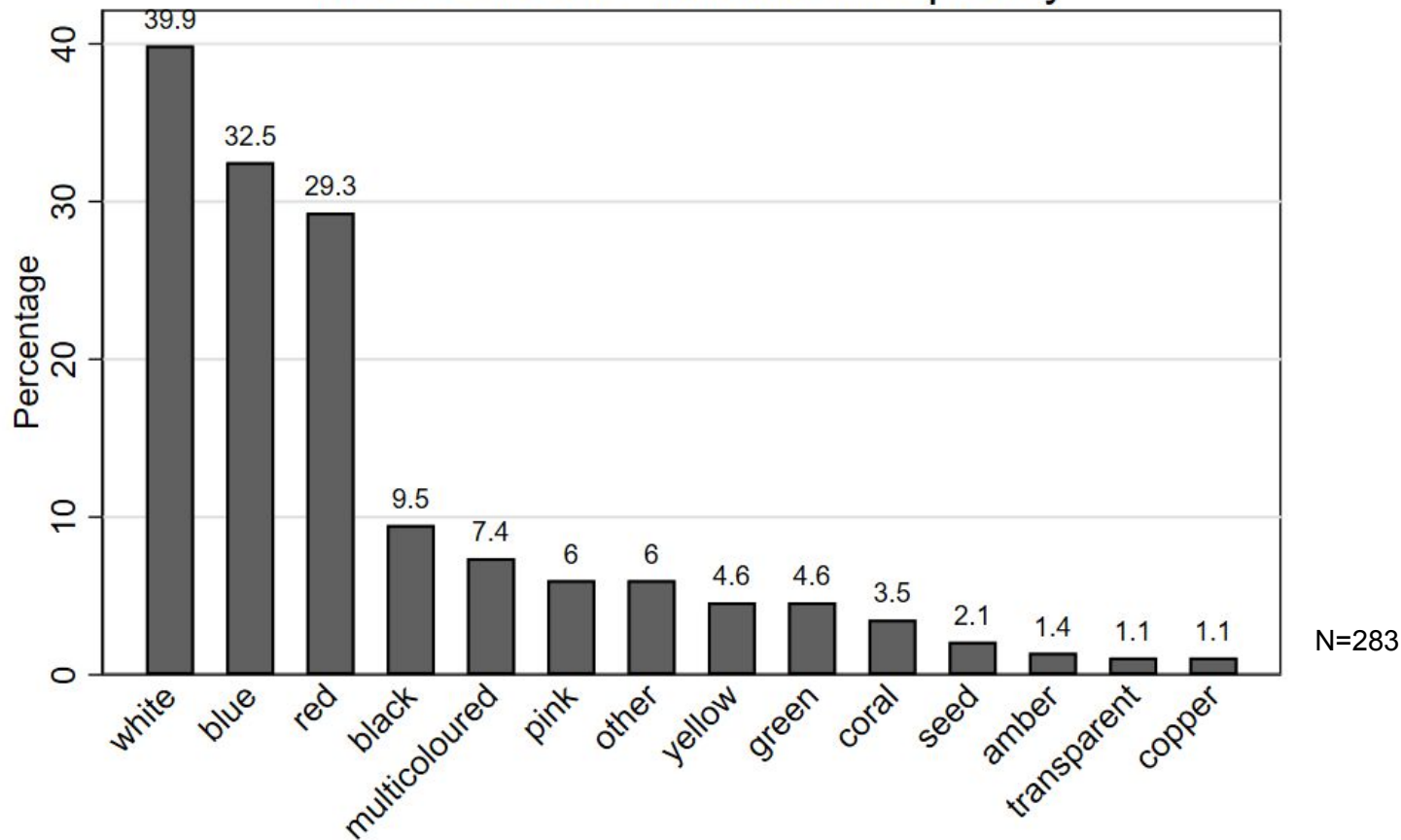
Relationship with Goods

Relationship with other Goods



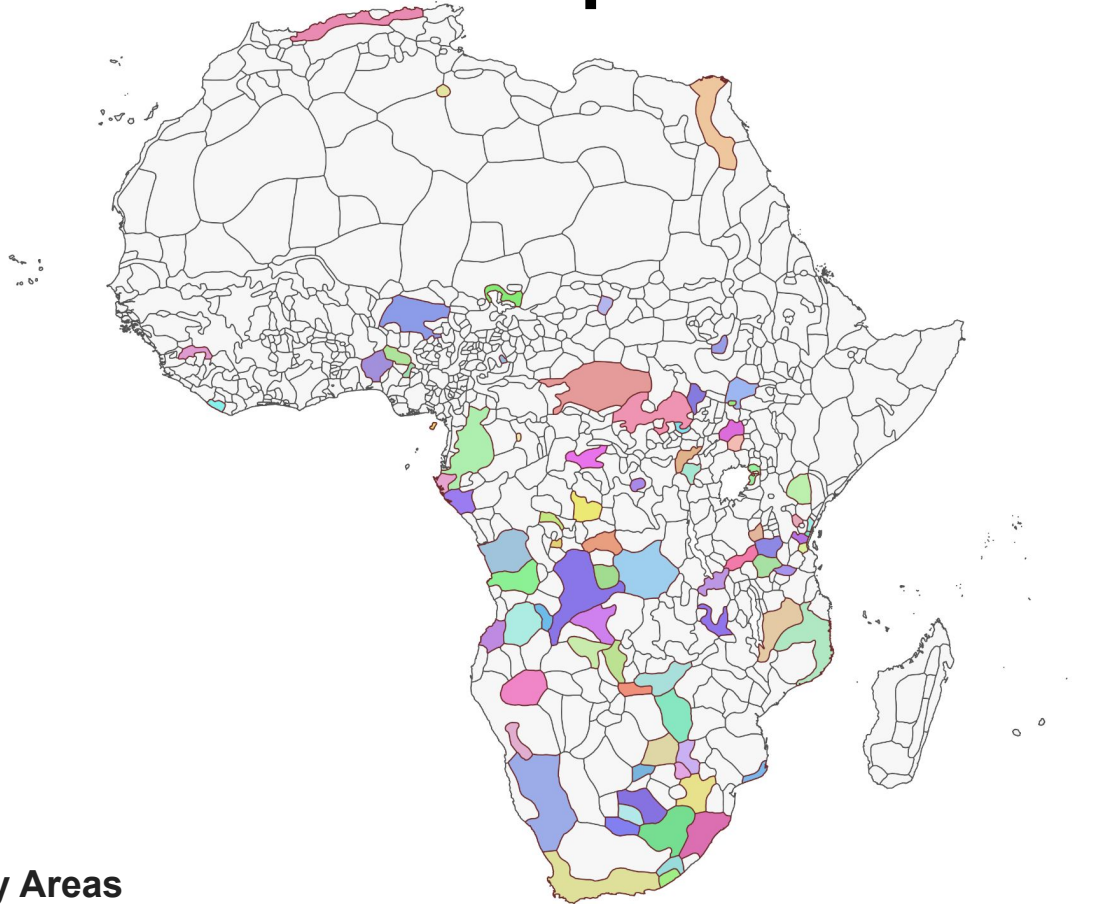
Colour of Beads

Bead Colours - Relative Frequency



Spatial Distribution of Colours

Trade Interactions per Ethnic Group





Red Beads

N(Colours)=283
N(Ethnic groups)= 390.
N(Colours & ethnic groups): 74.



Blue Beads

N(Colours)=283
N(Ethnic groups)= 390.
N(Colours & ethnic groups): 74.



White Beads

N(Colours)=283
N(Ethnic groups)= 390.
N(Colours & ethnic groups): 74.

Case Study: 19th-century East Africa

What can we learn using the Time Traveller corpus?

- Formation of currency areas: where beads are used as currency and where they are *not* used
- Overlap of functions;
- Relations of beads with other currencies and mediums of exchange;
- Currency areas not only regional: continental connections;
- Powerful narrative of the **web of entanglements** that was created by **Africans** as currency users



Bead Book, ©The Trustees of the British Museum

Discussion

Beads Database

- This is Big Data in AEH.
- Relevance of Central Africa
- Colour specificities based on regions
- Inflation/ Exchange rates
- Changing patterns of consumption



Throne of Njouteu: Royal Couple, late 19th–early 20th century. Cameroon
The Metropolitan Museum of Art

Road Ahead

Beads Database

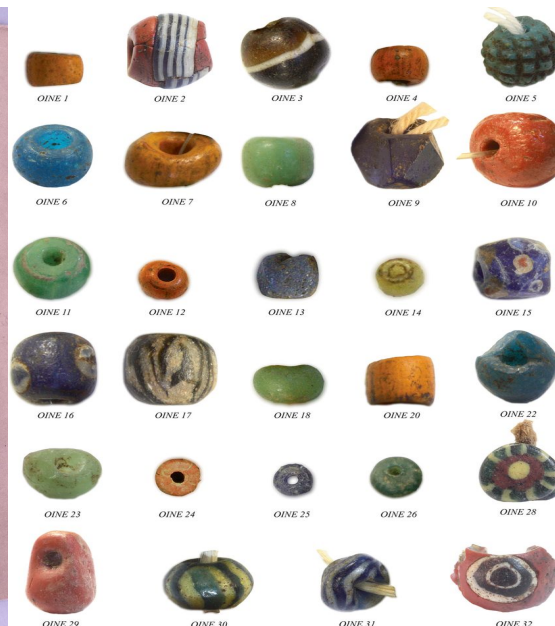
- Complete data set
- Refine Code book
- Can we estimate money supply and income?
- Exchange rates? Trade routes?
- State centralisation and the relationship with expansion of trade



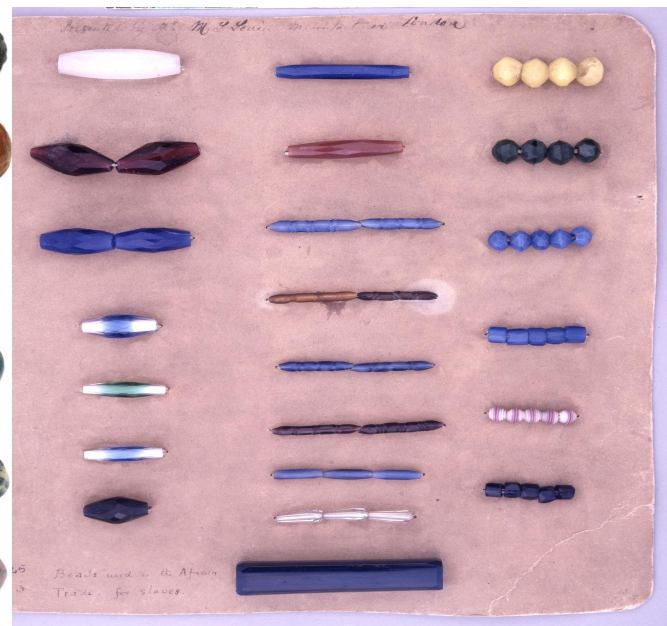
Thank You



Beads employed in African trade, M.L. Levin Manufacturer,
©The Trustees of the British Museum



Joanna Then-Obluska, "Beads and pendants from the Hellenistic
to Early Byzantine Red Sea port of Berenike, Egypt, Season
2014-2015," *Polish Archaeology in the Mediterranean*, 2018.



Human versus Generative AI - Function of Beads

	LLM					Total
	Ceremonial	Currency	Jewellery	Status Symbol	unknown	
Human						
Ceremonial	3	1	1	0	130	135
Currency	0	23	3	1	830	857
Jewellery	4	5	2	0	401	412
Status Symbol	2	0	1	0	380	383
Total	9	29	7	1	1741	1,787

Human versus Generative AI - Color of Beads

	LLM					
	blue	green	red	white	unknown	
Human						
black	1	0	21	1	0	23
blue	11	0	62	1	2	76
green	0	1	12	0	0	13
red	0	0	31	0	1	32
white	0	0	64	12	0	76
Total	12	1	190	14	3	