

LEXICAL CONTACT PHENOMENA IN  
AUSTRALIAN LINGUISTIC  
PREHISTORY: SUBSTRATES AND  
*WANDERWÖRTER*

Patrick McConvell

*Methodology in Linguistic Prehistory*

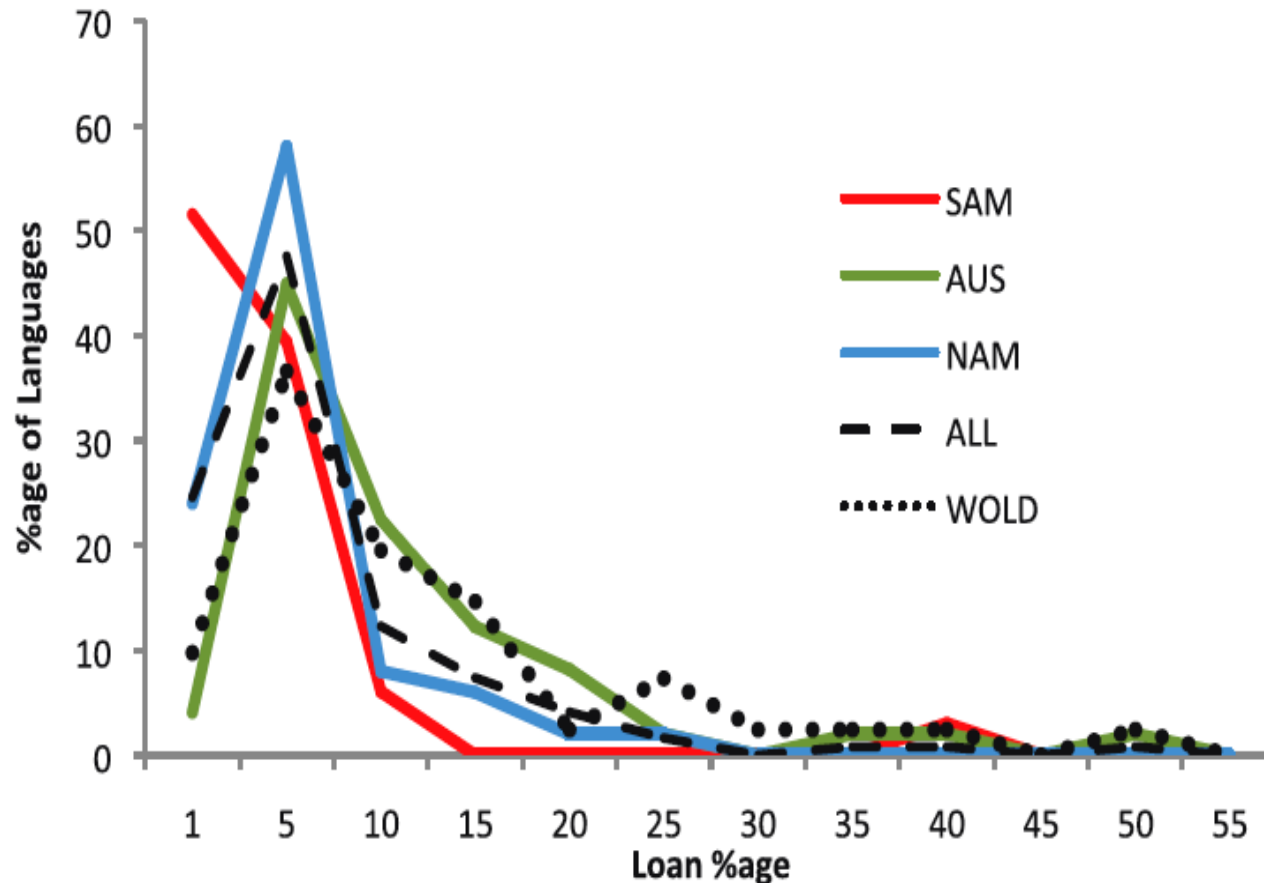
Berlin, 15<sup>th</sup> October 2011

RESEARCH SUPPORTED BY THE US NATIONAL SCIENCE FOUNDATION PROJECT  
*HUNTER-GATHERER LANGUAGE DYNAMICS* AND THE KIMBERLEY FOUNDATION  
AUSTRALIA PILOT PROJECT *LINGUISTIC PREHISTORY OF THE KIMBERLEY REGION*

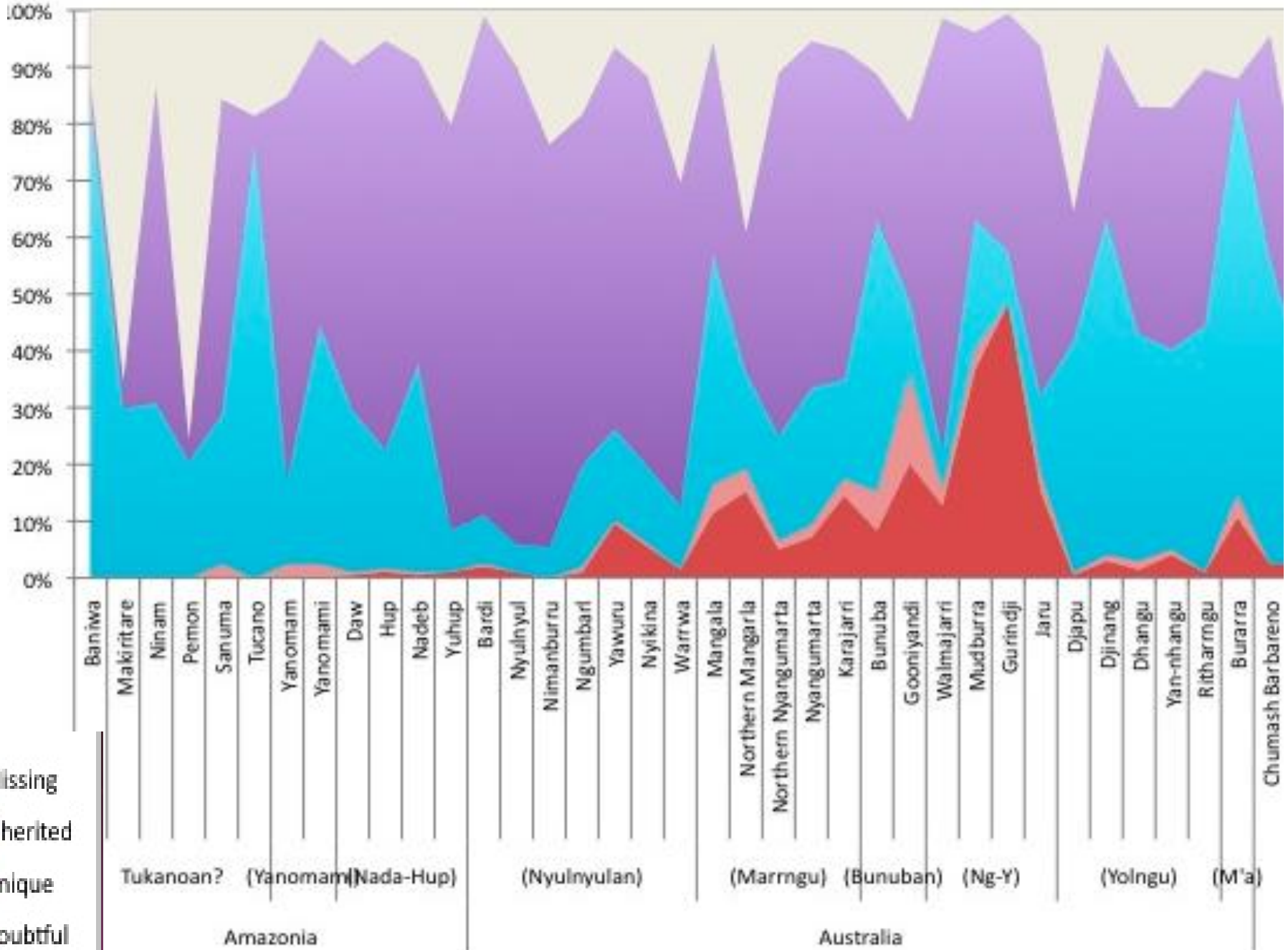
# Does Lateral Transmission Obscure Inheritance in Hunter-Gatherer Languages?

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**Figure 3. Loan levels across the regions.** Line plot of loan levels in Australia (AUS), North America (NAM) and South America (SAM) compared to the aggregate sample (ALL) and the languages from Haspelmath and Tadmor (2009) [1], showing an overall similarity in the distribution of loan levels by language across regions and sample type.

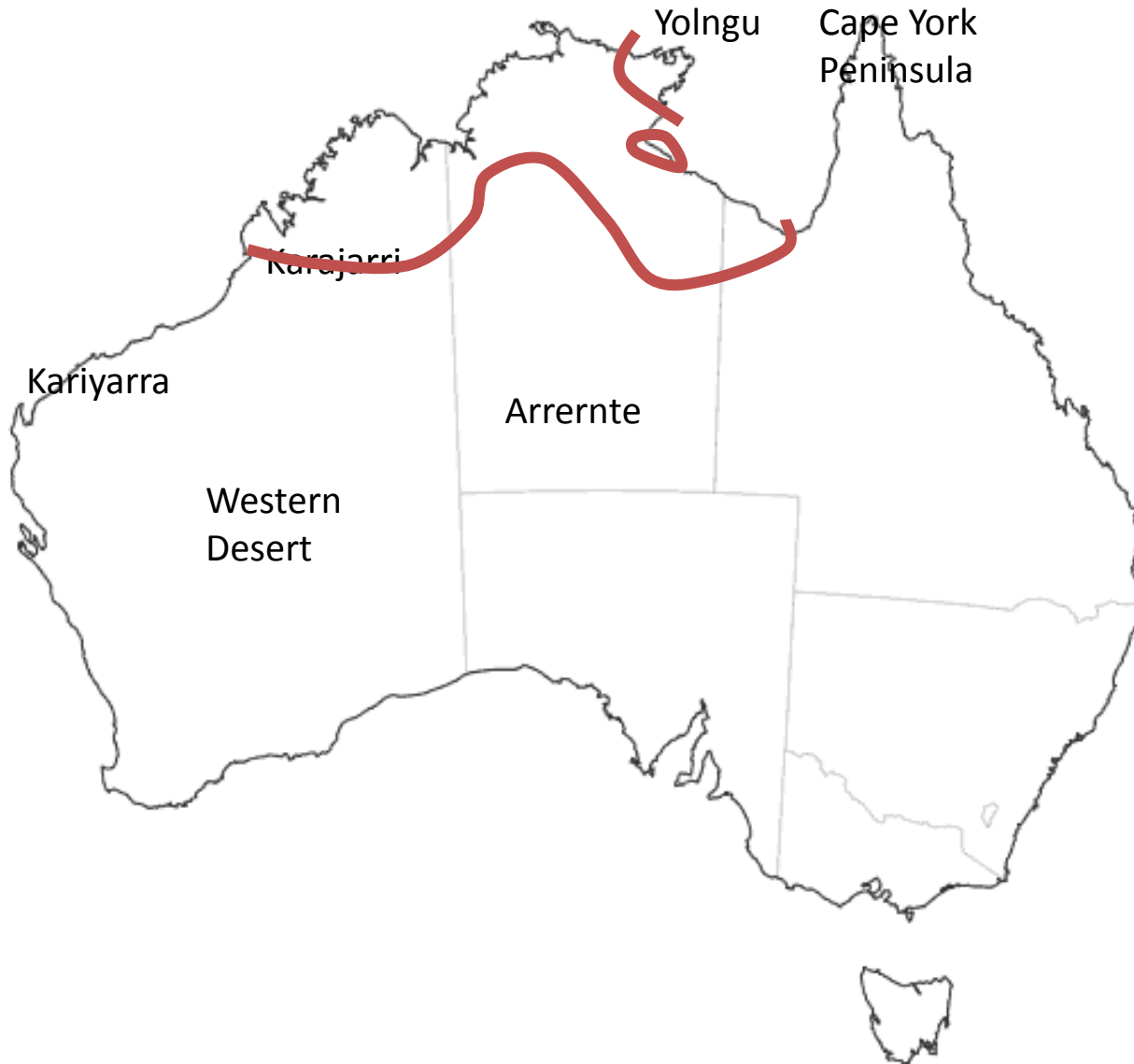


**LOAN LEVELS AUSTRALIA AND AMAZONIA (HGS project)**

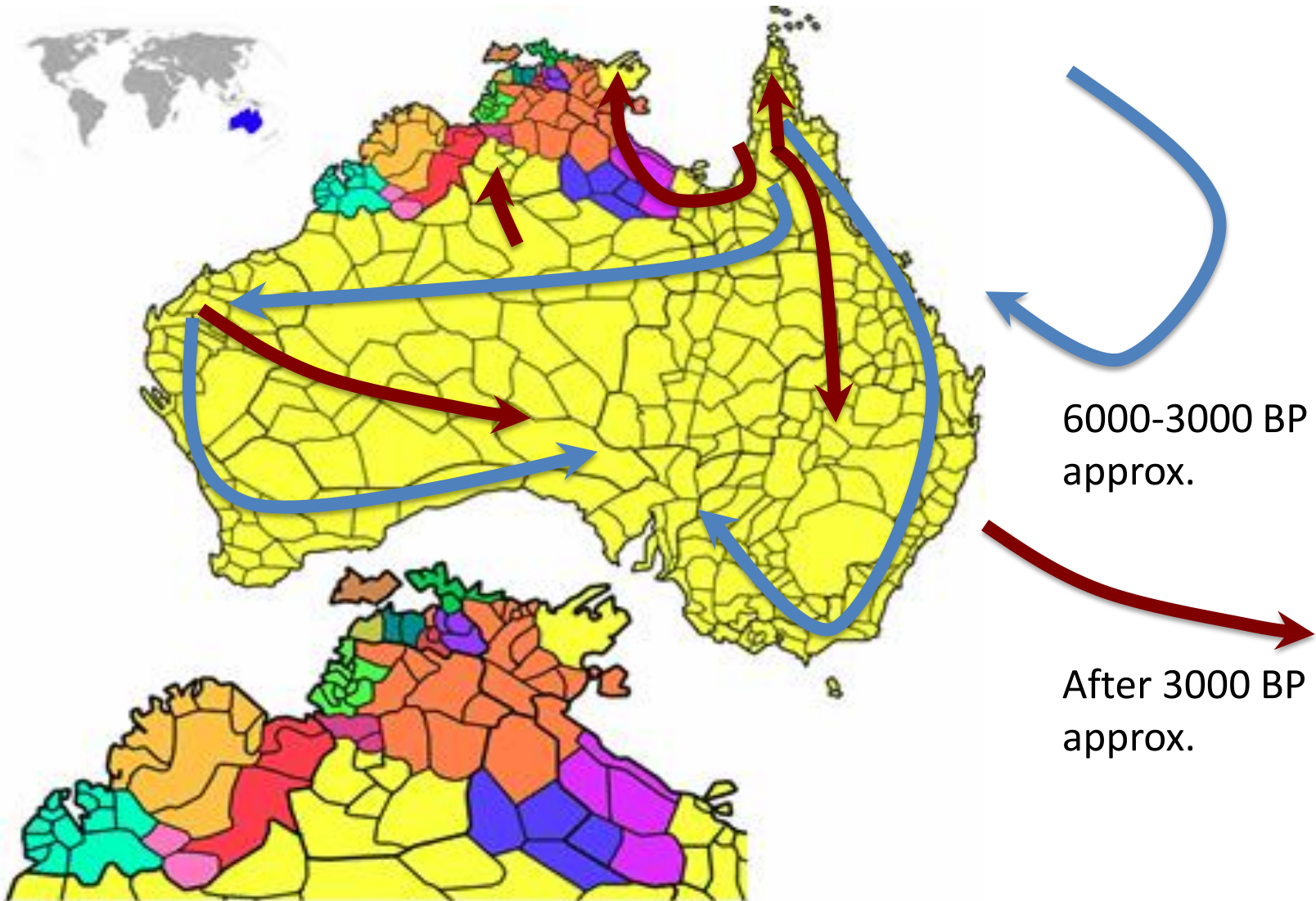
# CONCLUSIONS ON LOAN LEVELS

- basic loan levels in languages are usually low.
- certain social situations may lead to either abnormally low levels, as in SAM, or very high levels.
- high levels of loans can be the result of several different factors, which include language shift (in both directions)
- high and low rates of loans are associated with absence and presence of ideologies and practices of 'linguistic purism' respectively.
- mobile populations have higher average rates of borrowing.
- no evidence was found for a difference in loan rates between Hunter-gatherer and agricultural groups, suggesting that the social differences between HG and AG languages that resulted from the Neolithic revolution have not been as important for this area of language change as some have claimed.

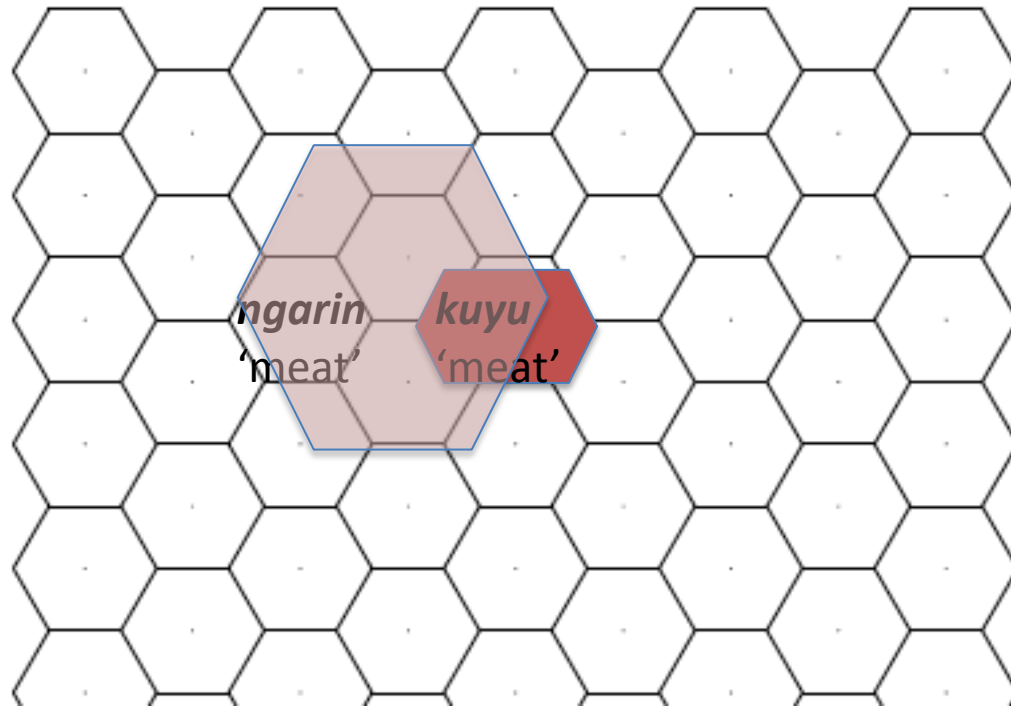
# PAMA-NYUNGAN AND NON-PAMA-NYUNGAN LANGUAGES



# PAMA-NYUNGAN LANGUAGE SPREAD



# LANGUAGE SPREAD: SUBSTRATE



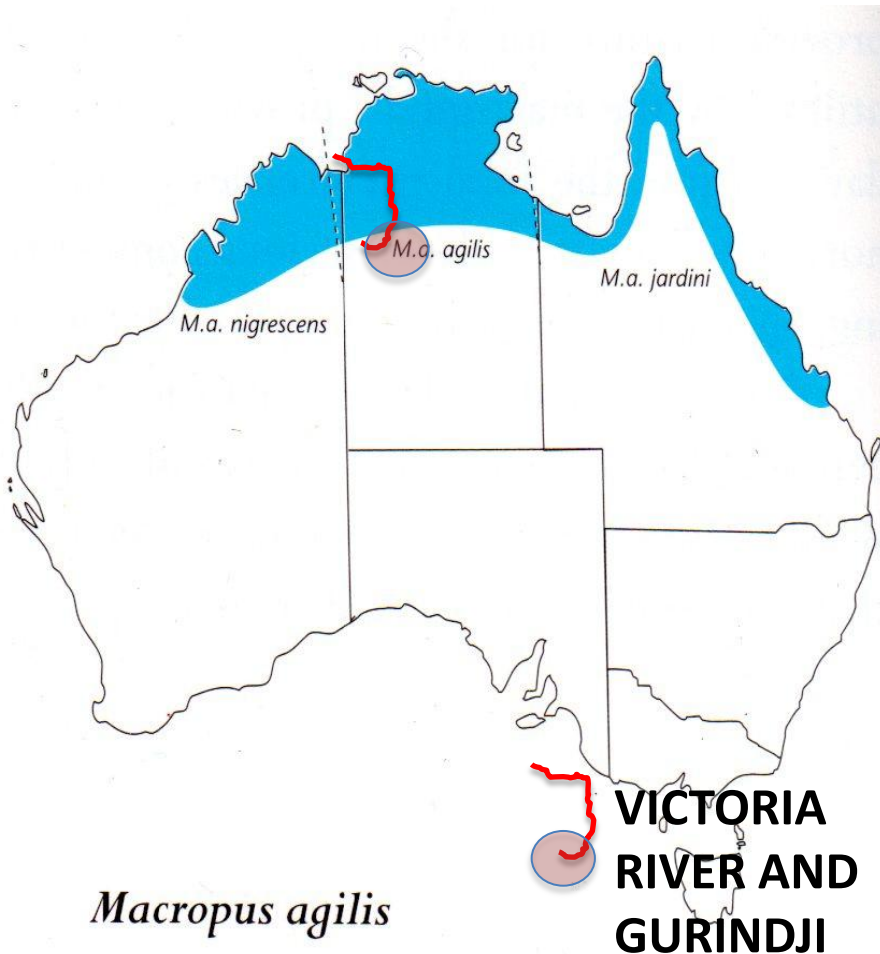
LANGUAGE A –ORIGINAL DISTRIBUTION



LANGUAGE A –DISTRIBUTION AFTER SPREAD

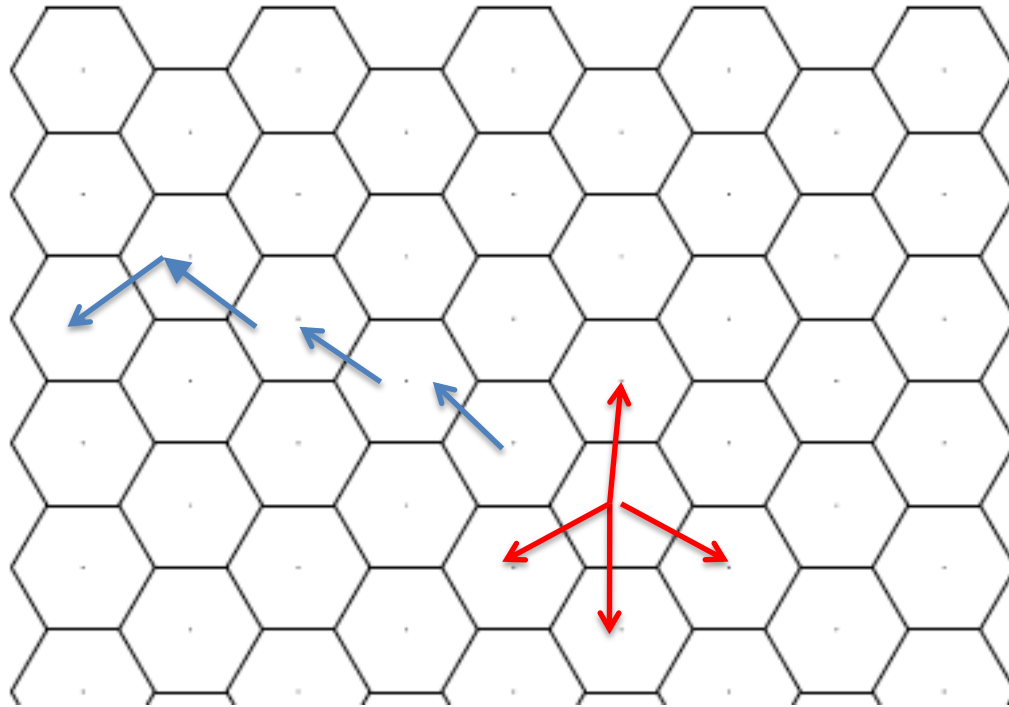
# GEOGRAPHICAL DISTRIBUTION OF TERMS AND SPECIES: AGILE WALLABY

Gurindji *makiliwarn* < Nungali





# WANDERWÖRTER

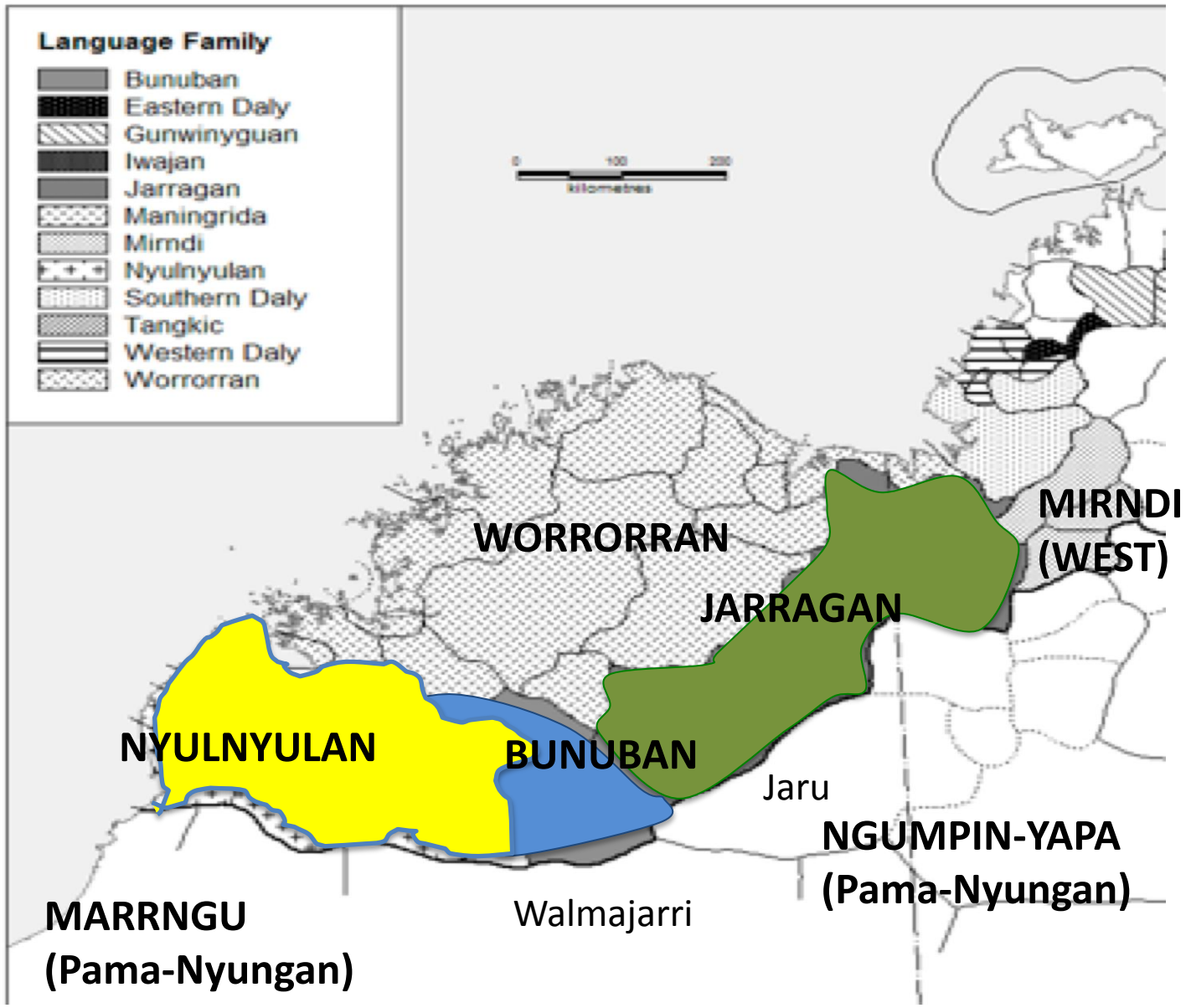


**CHAIN**



**STAR**

EXAMPLE: SUBSECTIONS



Boundaries  
--- Dialect  
— Language  
— Non-Pama-Nyungan

# PELICAN



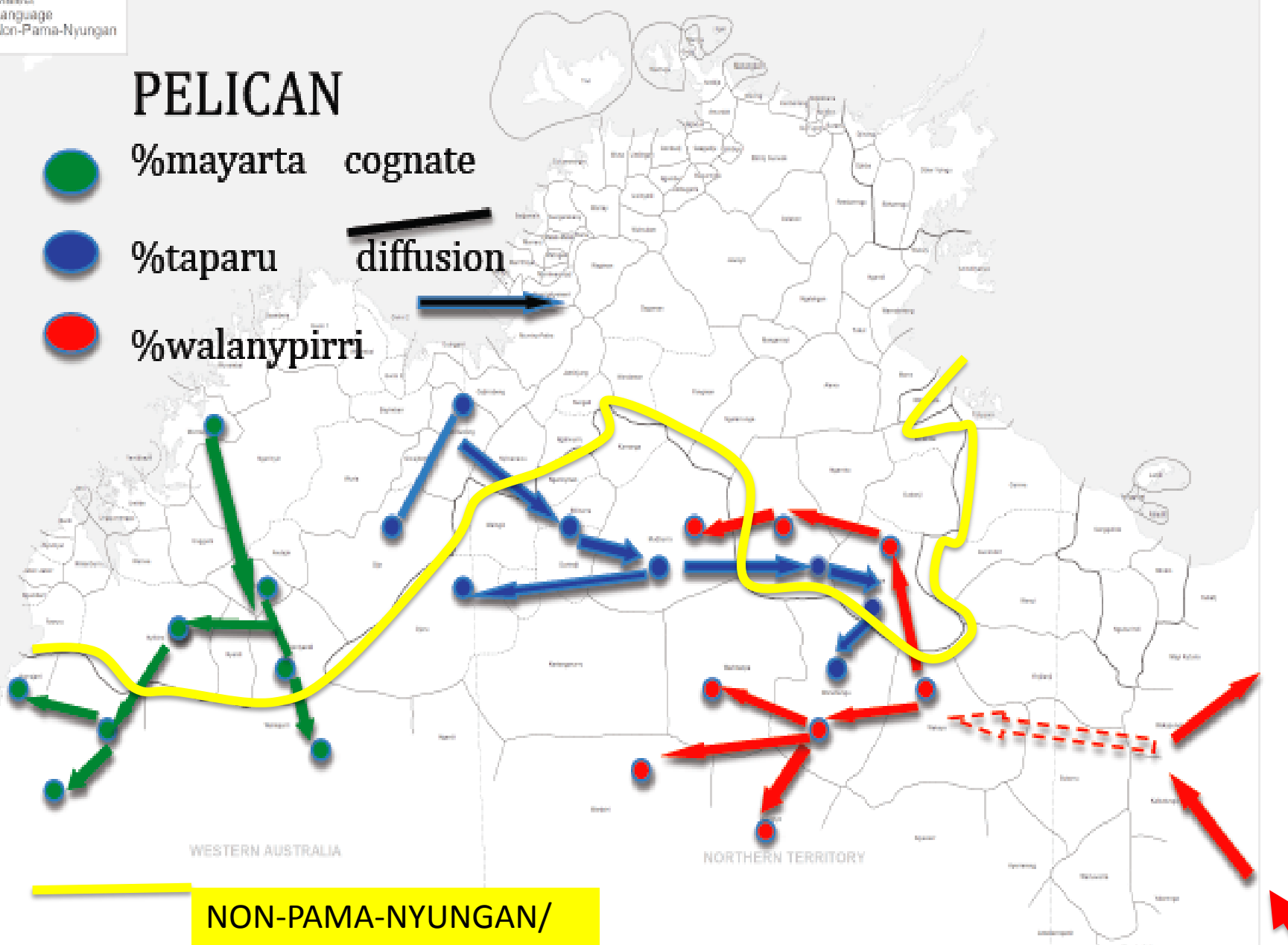
%mayarta cognate



%taparu diffusion



%walanypirri



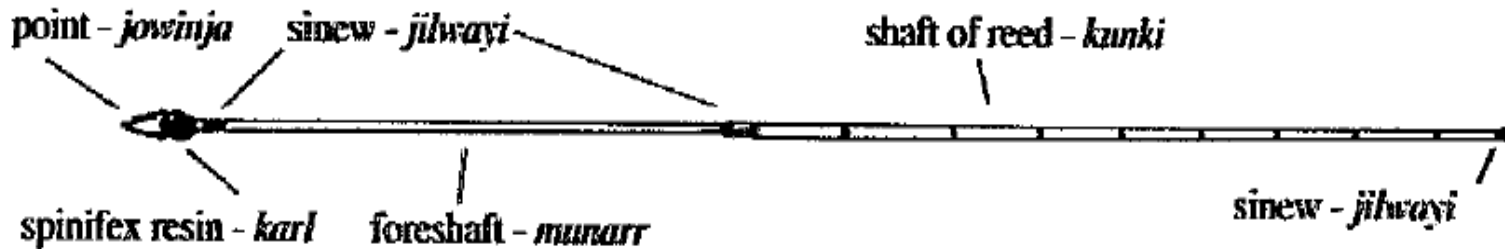
WESTERN AUSTRALIA

NORTHERN TERRITORY

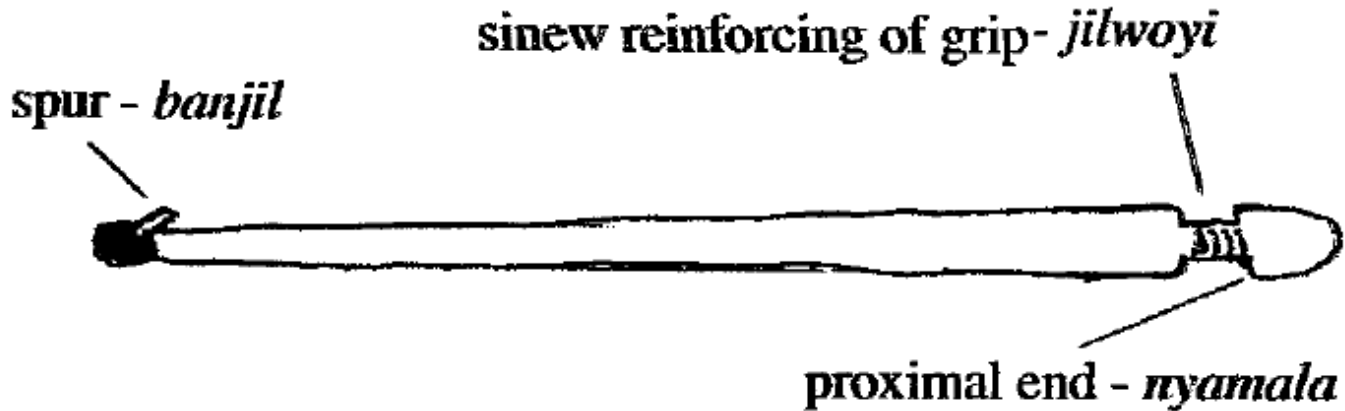
NON-PAMA-NYUNGAN/  
PAMA-NYUNGAN

# Timber and artefacts

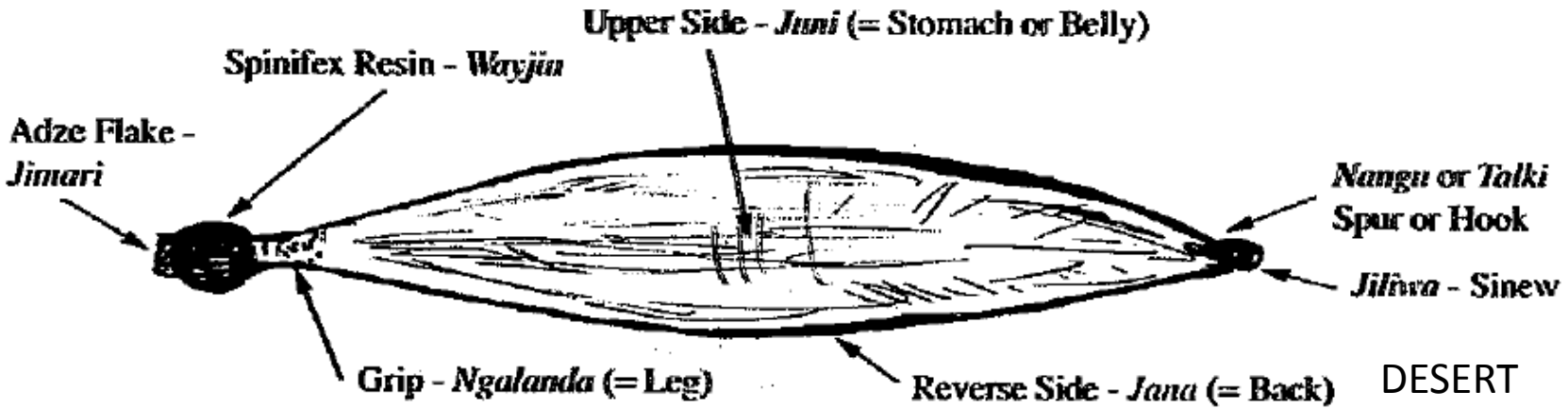
Artefacts such as spearthrowers can take their name from the tree they are generally made from, and later the artefact is referred to by the old tree name even outside the area where that tree grows, pointing to the origin of the particular style of the artefact



BAMBOO  
SPEAR















LIGHT SPEAR  
THROWER FOR  
BAMBOO  
SPEAR



DESERT  
SPEAR  
THROWER

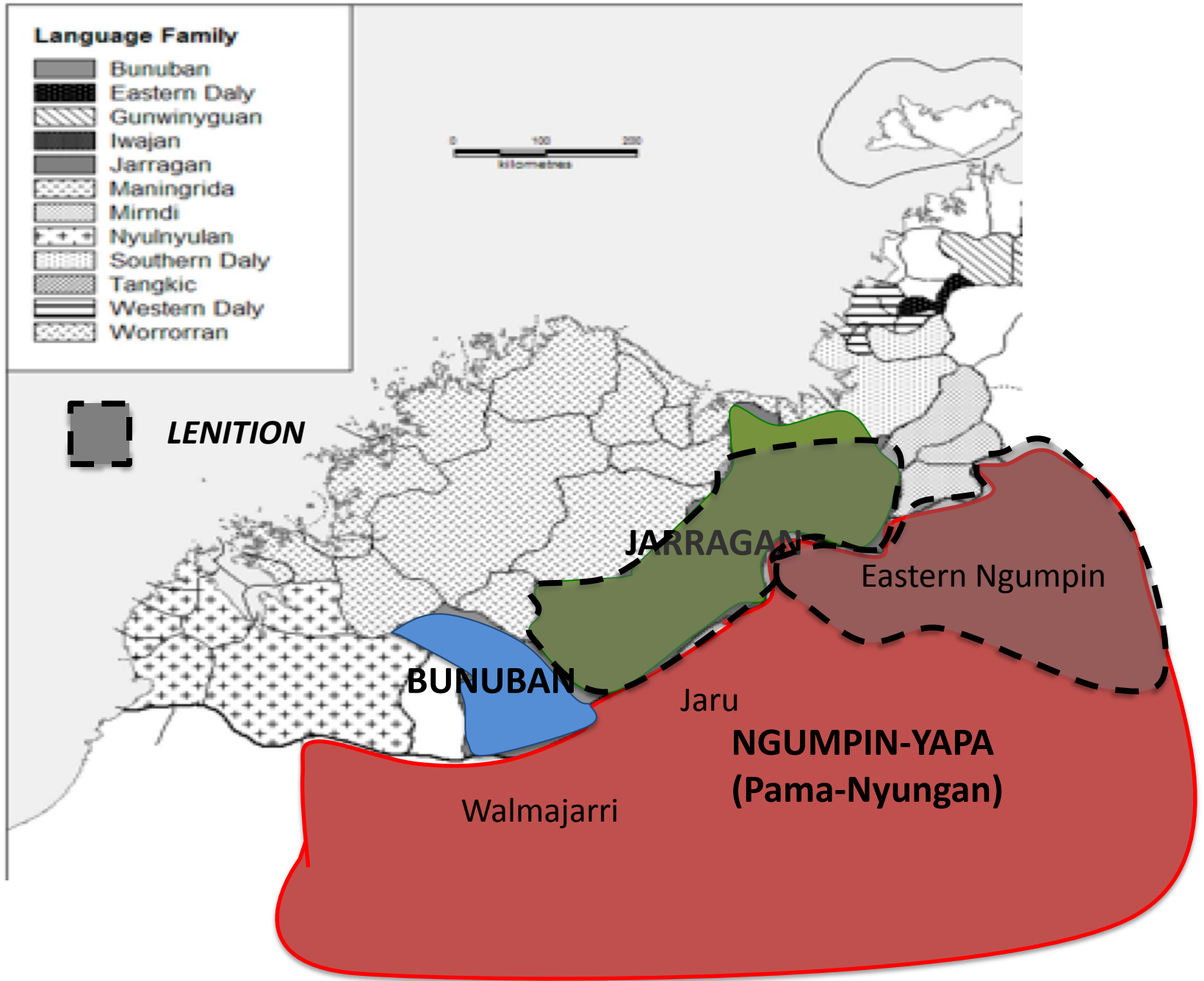
Kim Akerman, Material Culture notes (various languages)

**Language Family**

-  Bunuban
-  Eastern Daly
-  Gunwinyguan
-  Iwajan
-  Jarragan
-  Maningrida
-  Mirndi
-  Nyulnyulan
-  Southern Daly
-  Tangkic
-  Western Daly
-  Worroran



**LENITION**

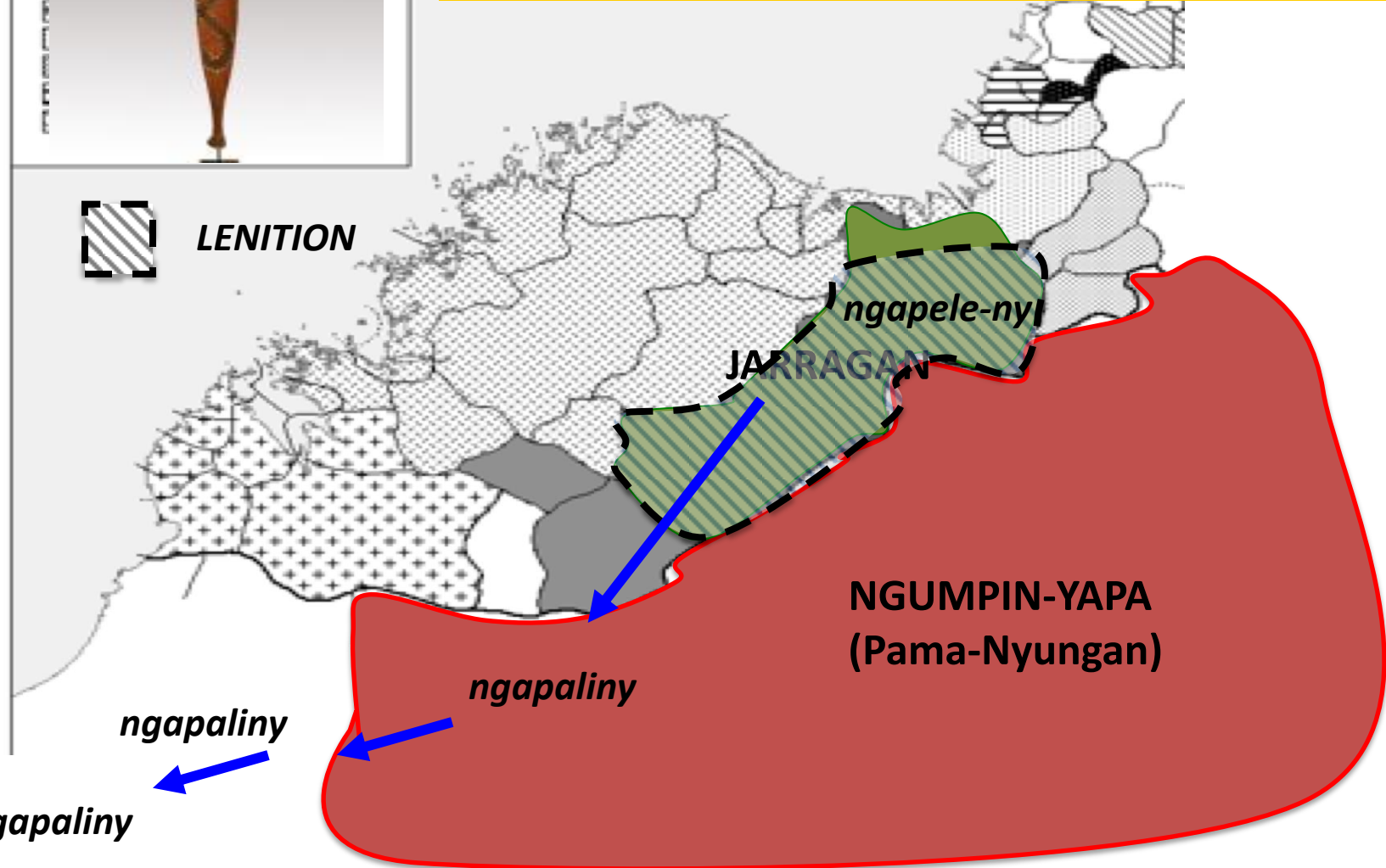




SPREAD OF REFLEXES OF \*NGAPALE(NY)  
'SPEAR-THROWER' stage I pre-Lenition  
loan



LENITION



*ngapele-nyl*

JARRAGAN

NGUMPIN-YAPA  
(Pama-Nyungan)

*ngapaliny*

*ngapaliny*

*ngapaliny*



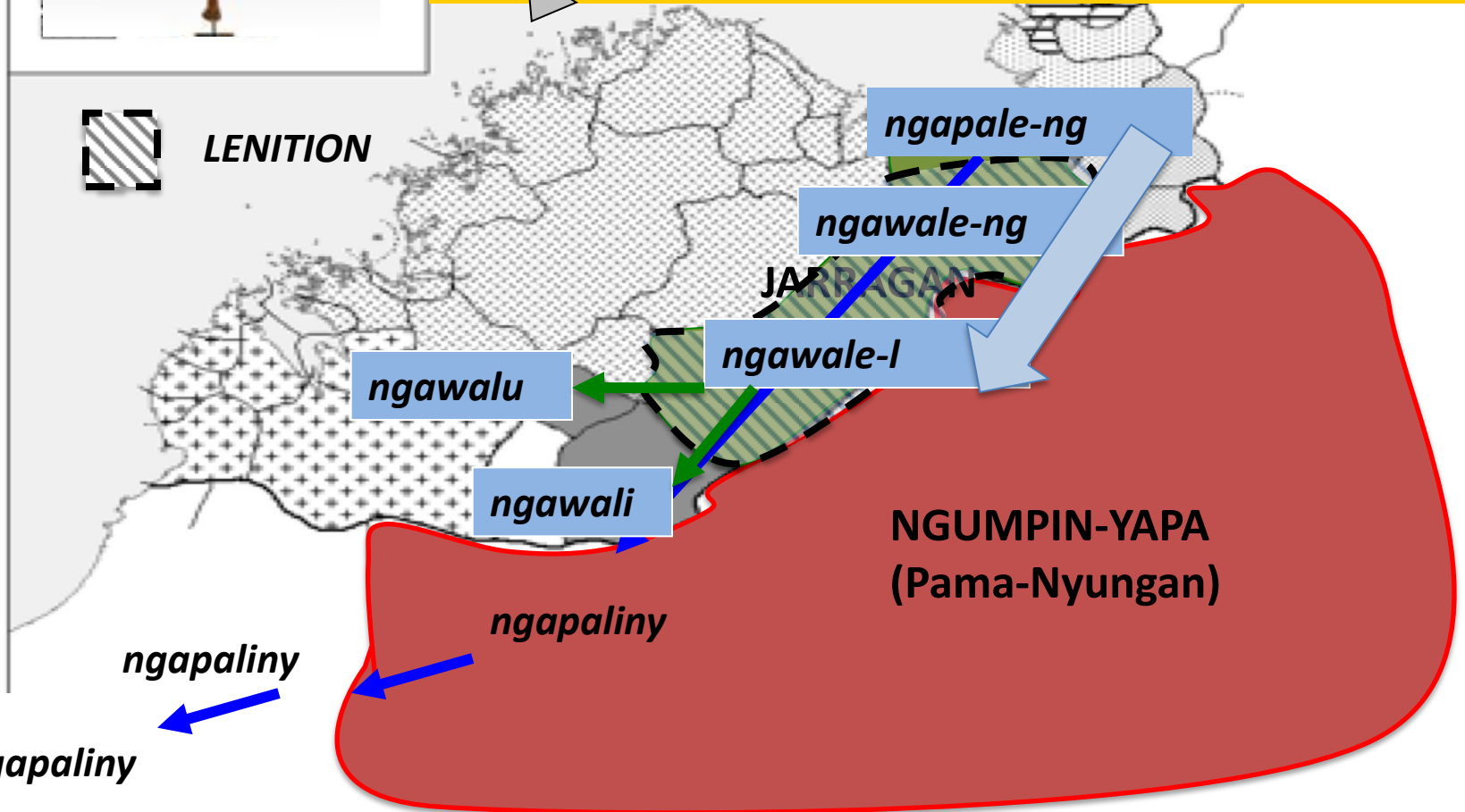
# SPREAD OF REFLEXES OF \*NGAPALE(NY) 'SPEAR-THROWER' stage II post-Lenition

inheritance

loan



LENITION



NGUMPIN-YAPA  
(Pama-Nyungan)

ngawalu

ngawali

ngapaliny

ngapaliny

ngapaliny

ngapale-ng

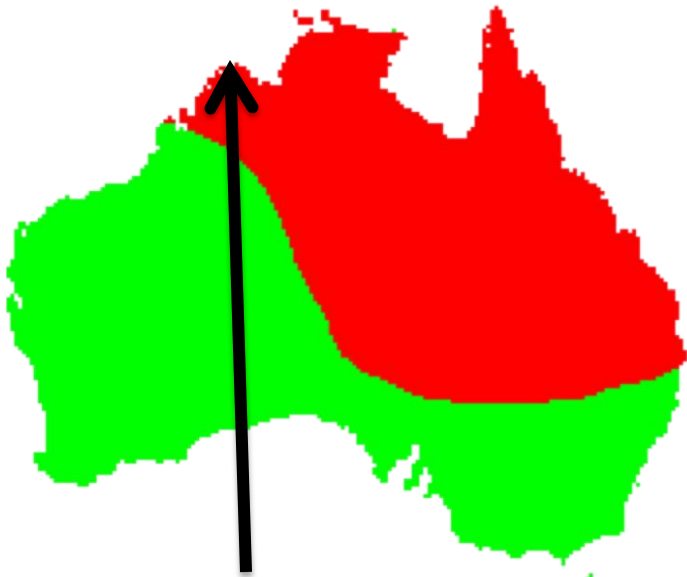
ngawale-ng

ngawale-l

JARRAGAN



In Miriwoong, *ngawaleng* (also) means  
**Erythrina vespertilio** (Bat's wing coral tree)



Found in north-east  
Kimberley, not in south-  
west Kimberley



# CAPELL (1939) COMMENTING ON LOVE ON WORRORRA

of his examples can be explained—e.g. *yangaltja*, the wommera is only to be reckoned a synonym with *yamalba*, wommera, because *yamalba* wood is used to make wommeras and so the name is transferred—yet others remain as complete synonyms. Such a case is

## WORRORRA DICTIONARY

*Yamalbanya nyina* spear-thrower

*Yarnkalja nyina* spear-thrower

## NGARINYIN DICTIONARY

\lx *yamalba*

\ge womera (the swayer)

\lx *yamalba (nyindi)*

\ge corkwood tree

\sc *sesbania grandiflora*, or *erythrina*).

## AKERMAN'S MATERIAL

## CULTURE NOTES

### Miriwung

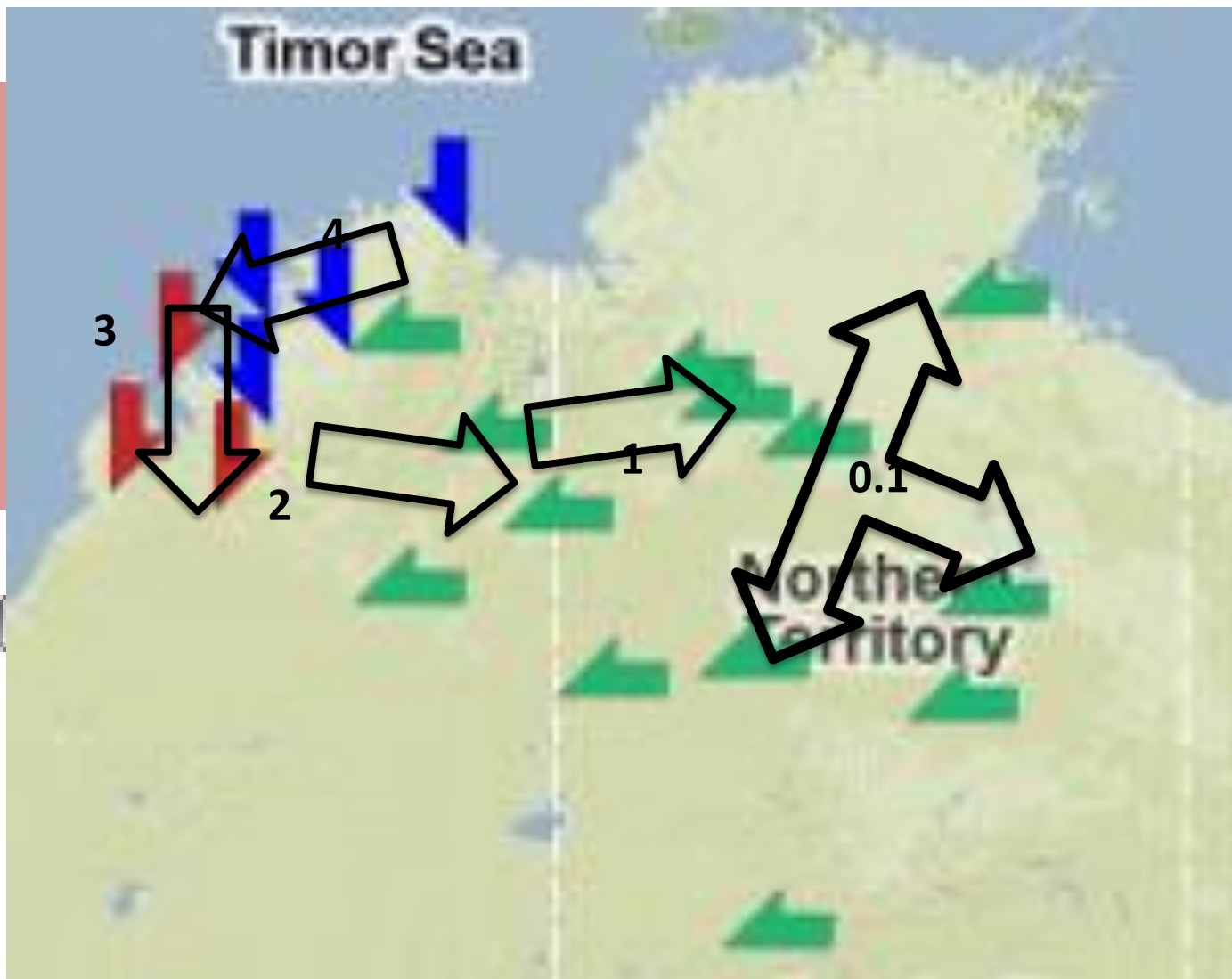
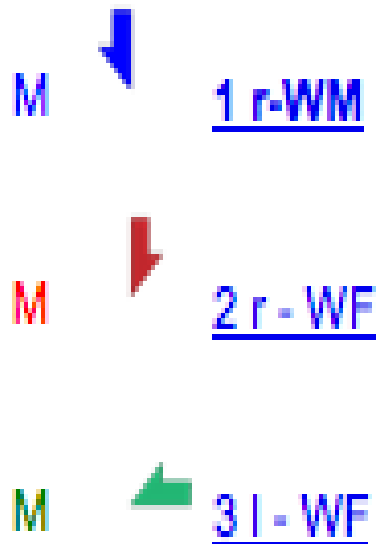
*Ngawalil* – Kimberley type lath spearthrower of *E. vespertilio*.

Wunambal / Kwini. Kalumburu. Manila Kutwit, Dick Wutmorra, Wilson etc  
12/6/1975

Spearthrowers cut from the wood of the *kantiwal* tree (*Erythrina vespertilio*).  
[AKA YAMALBAL – AKERMAN]

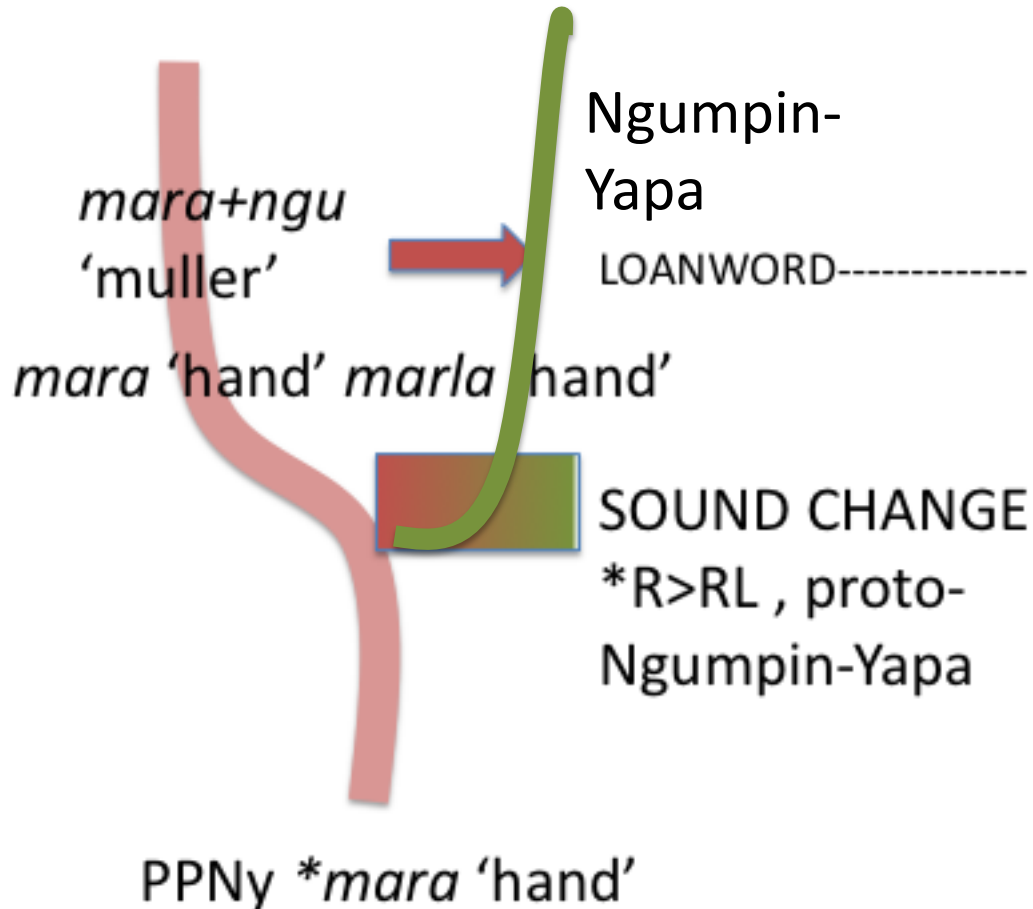
# IN-LAWS

Spread of  
*ramparr/*  
*lamparr(a)*  
Wife's Mother  
→ Wife's  
Father



# Linguistic stratigraphy of the muller (top grindstone)

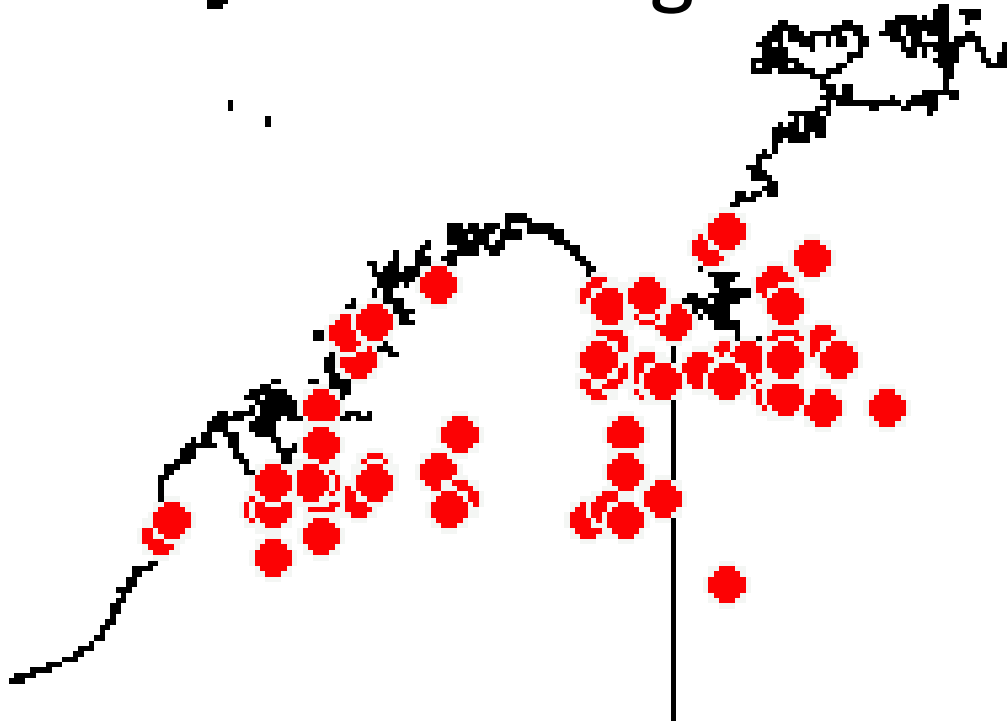
## LINGUISTICS



## ARCHAEOLOGY

2500 bp	GRINDSTONES HORIZON IN S. KIMBERLEY
?3000bp	
3500 bp	expansion of seed- grinding economy in Central Australia

# BOAB: *Adansonia Gregorii*















Different roots in the different families; but also spread of coined words from peripheral areas in the west (probably with mythological associations) and regional diffusion into peripheral areas in the east (possibly associated with spread of the tree).

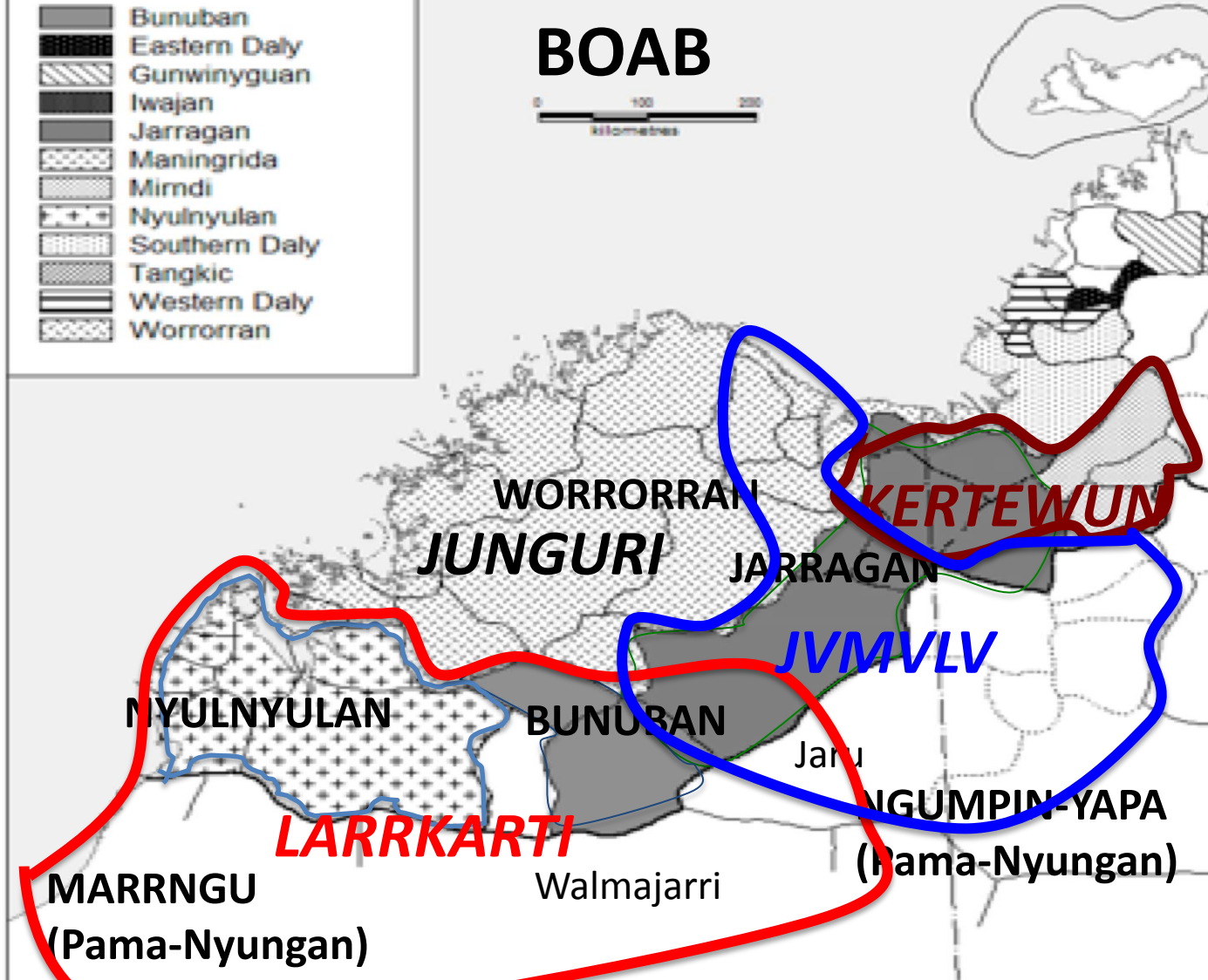
# BOAB TREE PRISON, DERBY



**Language Family**

-  Bunuban
-  Eastern Daly
-  Gunwinyguan
-  Iwajan
-  Jarragan
-  Manningrida
-  Mirndi
-  Nyulnyulan
-  Southern Daly
-  Tangkic
-  Western Daly
-  Worrorran

# BOAB



# DIFFUSION OF A NEOLOGISM FROM THE PERIPHERY 'boab' (*Adansonia gregorii*) : *larrkarti*

**Nyulnyulan:** Bardi *larrgidi*, Yawuru *larrgardi*, Nyikina *larrkardiy*,  
Warrwa *larrkardiy*

**Worroran:** Unggumi *larrgari*

**Bunuban:** Bunuba *larrgariy*, Gooniyandi *larrgardi*

**Jarragan:** Kija *larrgardi* (boab nut)

**Marrngu (Pama-Nyungan):** Karajarri *larrgardi*, Mangala  
*larrgardi*, N. Nyangumarta *larrgardi*

**Ngumpin-Yapa (Pama-Nyungan)** Walmajarri *larrkarti*,

## **PROBABLE ORIGIN**

**Karajarri/Mangala:** *larr* 'split (lengthways)'

*larrka* 'open'

**Karajarri:** x *-ti* (*-rti*) 'thing/person which typically does/is x'  
(cf. Mangala *-yiti*)

> *larrkarti* 'thing which splits open'



## STORY OF THE WANDJINA SPLIT BOAB TREE

The Barking Owl, *Tumbi* was caught by some children. They tortured him, plucking his feathers and putting a sharp grass stem through his nose. They threw him up into the air so they could watch him fall down unable to fly. They threw him up again and again - but then he didn't fall down but disappeared into the sky. He went to see the Wanjina Wojin. He was really the son of Wojin/Wanalirri. He told him how he had been mistreated and abused and demanded justice. He wanted the humans killed...

Wojin/Wanalirri gave the signal and the Wanjinas killed the humans with a big storm with lightning and floods.....At Yomon a Wanjina Kangaroo with a long black and white tail called *Mangara* (Nail-Tailed Wallaby) saved two children from the flood.....

The two children who had been saved then killed the little wallaby. The mother of the wallaby was the Wanjina Yomon (*Yom* = drown). Angry, she transformed herself into a big boab tree, with a cleft in one side that led to a hollow interior. This was her vagina. Then, creating a big dust storm she caused the two children to seek refuge from the flying sand in the cavity, which then closed on them.

*Extracts from Akerman (1976, 1985); variants published by others also – thanks to Kim Akerman. Location of the events is in the North Kimberley*



3082. Painting of an boab tree-like anthropomorphc figure. Lerida Gorge, Fossil Downs. 29-10-77

Gooniyandi/Bunuba country; boab anthropomorph rock paintings also in Miriwoong country and elsewhere. *Thanks to Kim Akerman.*

**WORRORRAN** *junguri/jungura* - no obvious etymology or stratigraphy at this stage.

**JARRAGAN** *jamula-/jumulu-*. The suffixes are gender markers, -ny masculine in Kija *jumulu-ny*, and -ng general. Today *jamula-ng* is not found in the northern Jarragan languages but has been borrowed into the eastern neighbouring Ngumpin languages where the final -ng attests to its Jarragan origin. The form *jumulu-* in Kija looks like a later development, but it is found in Kwini, probably borrowed from Kija. The change a>u before second vowel u is also found in subsection terms; the stratigraphy needs investigation.

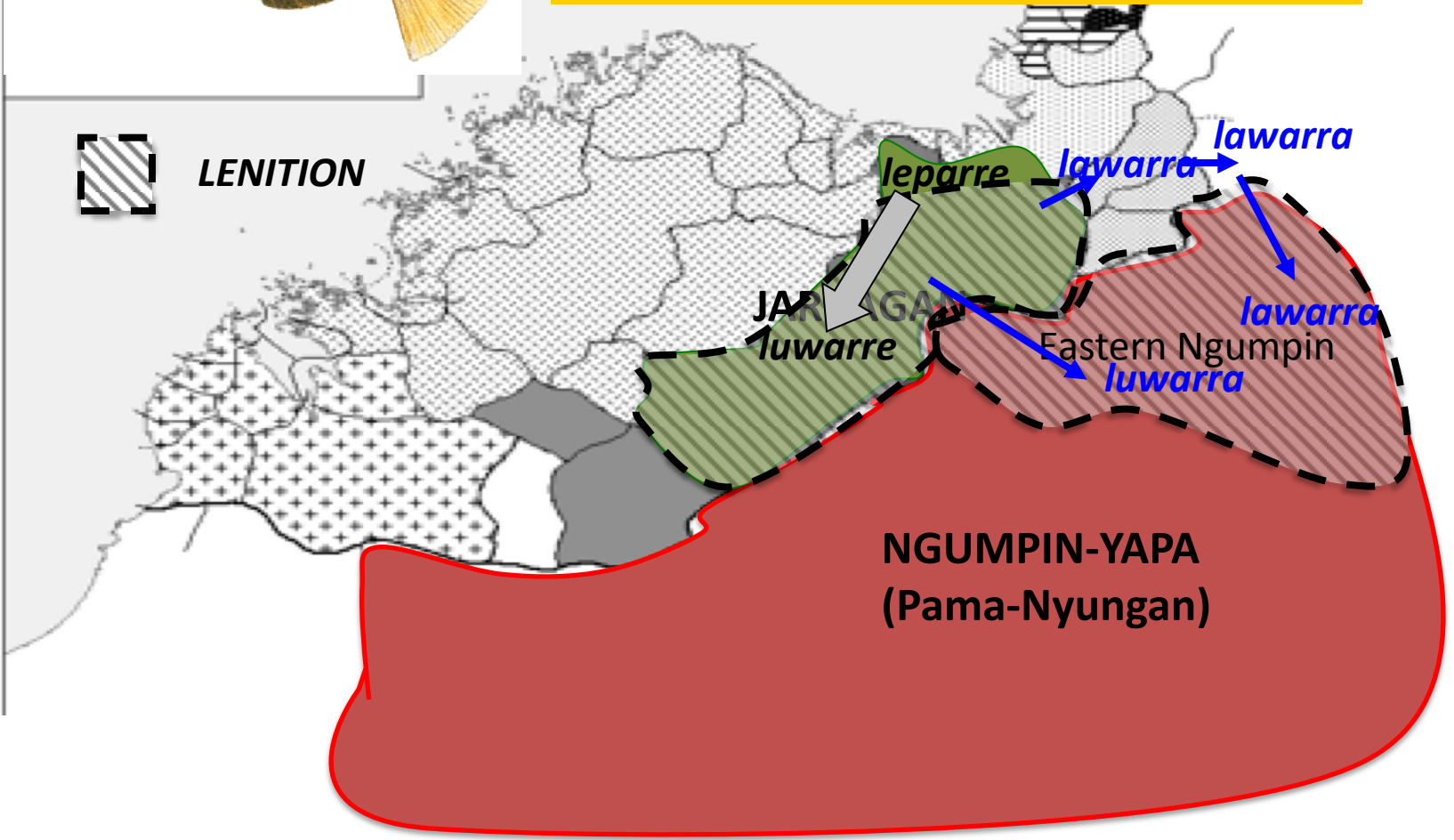
*kertewun* in Gajirrabeng/Miriwung has replaced *jamulang* relatively recently; lack of lenition \*rt>r in Miriwung may indicate recency but the lenited form *kuruwuny* diffused into Western Mirndi to the east. The form is similar to the Jarragan root for 'egg' \**kertewul* (cf. the egg shaped boab nut). *Muruwun* in Nungali has an added vegetable class prefix mV- with regular lenition of k.



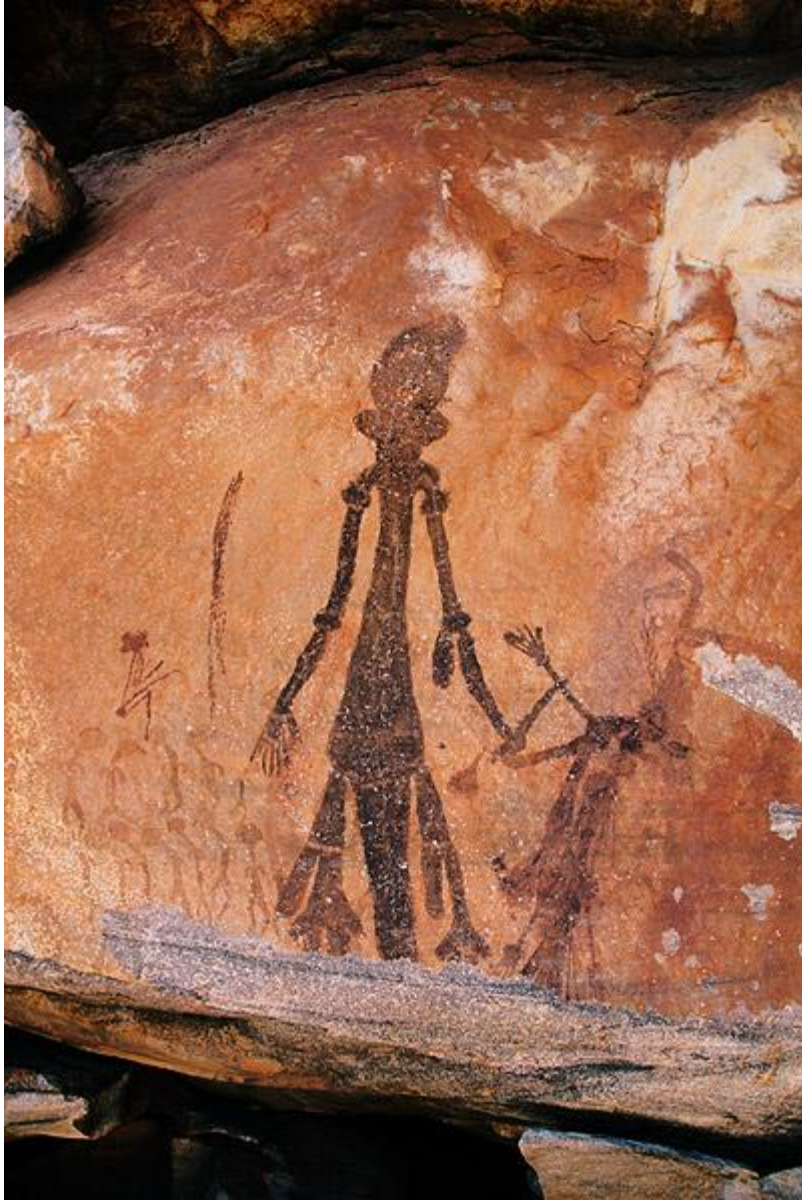
SPREAD OF REFLEXES OF  
\*LEPARRE 'ARCHER-FISH'  
inheritance → loan/  
substratal



LENTITION

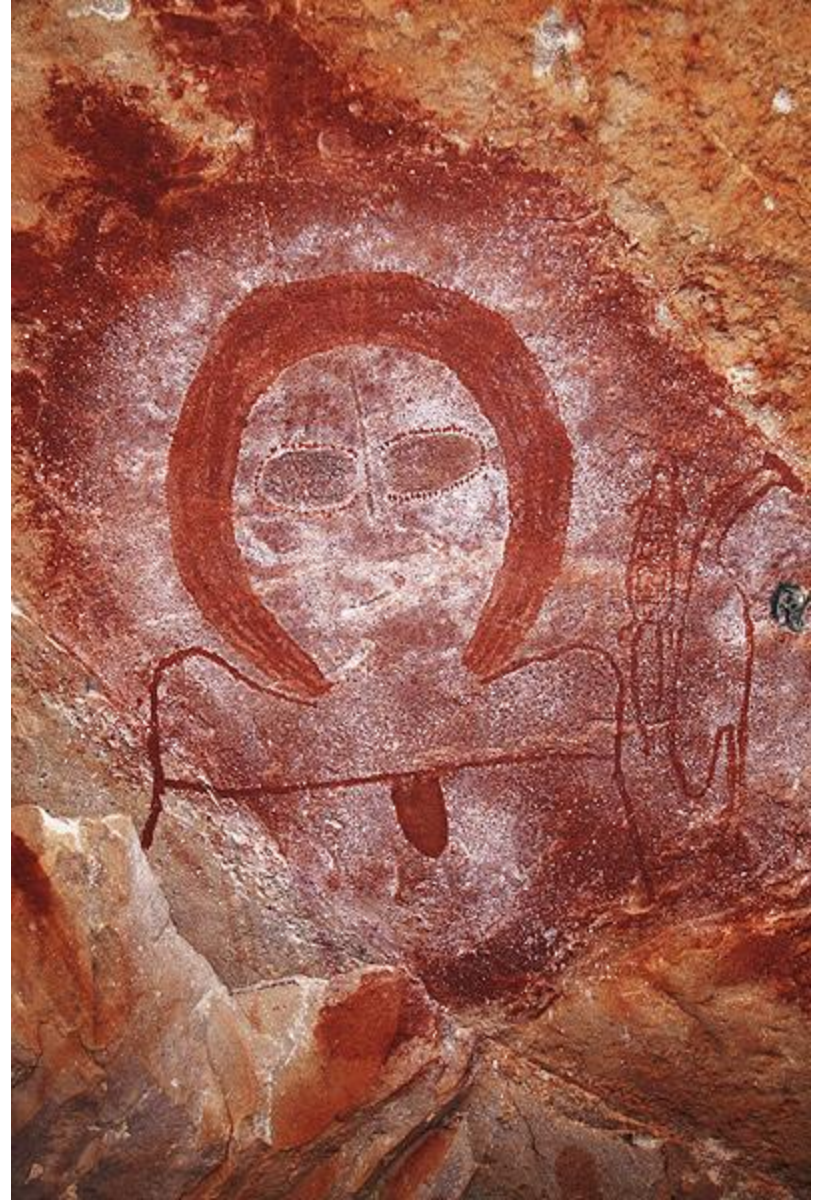


NGUMPIN-YAPA  
(Pama-Nyungan)



## BRADSHAW PAINTING

Around 20,000 y.a. OR 7000-4000 y.a

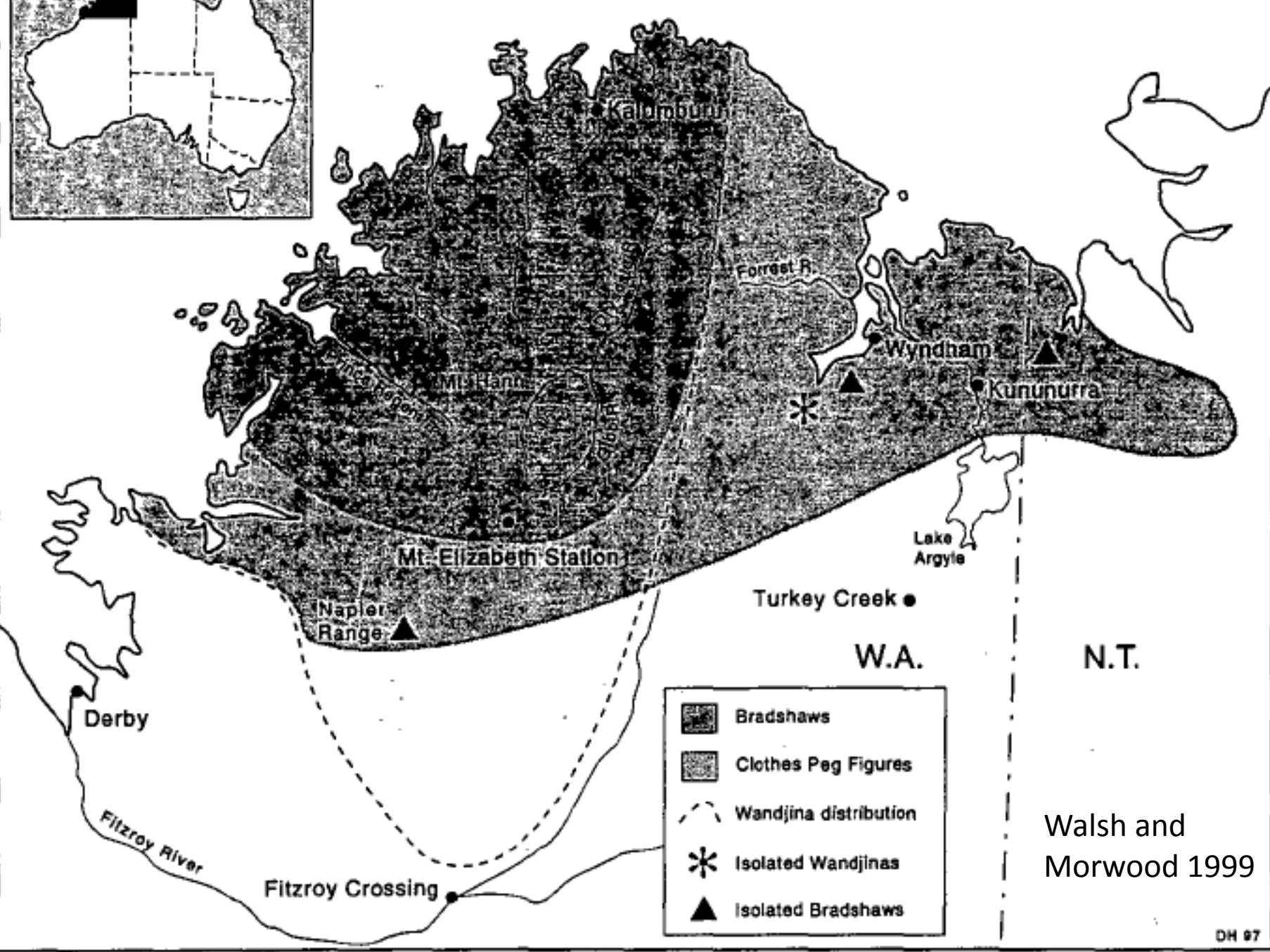


## WANDJINA PAINTING

From 4000 y.a.



**LENE HARA CAVE, EAST TIMOR, CARVED FACE RESEMBLING WANDJINA**  
**Dated 10-12kya (Sue O'Connor, Ken Aplin)**



Walsh and  
Morwood 1999

Figure 1: The Kimberley, northwest Australia showing spatial distribution of major rock art styles.



Figure 5: Depiction of a late Bradshaw figure holding boomerangs, a pair of multi-barbed spears and a spearthrower. This is the first clear evidence currently known from the Kimberley rock art sequence for the spearthrower. Note the prominent "knobs" at the proximal ends of the spears. (Photo: G.L. Walsh).

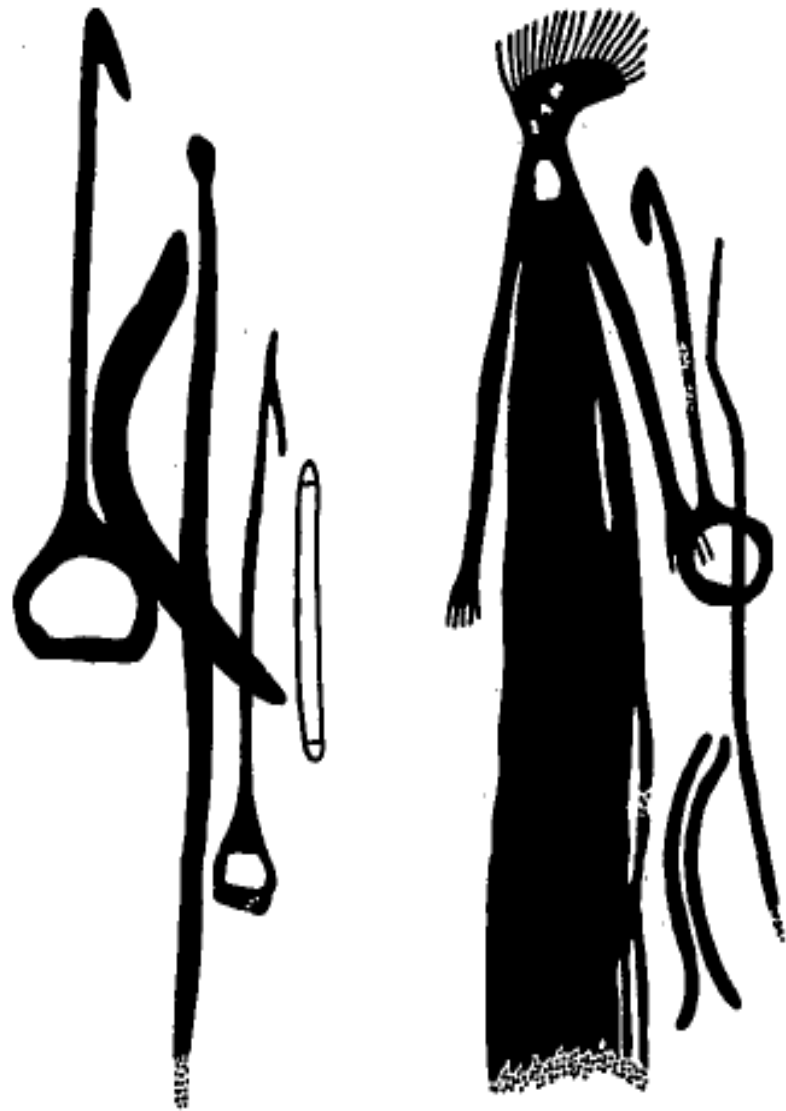
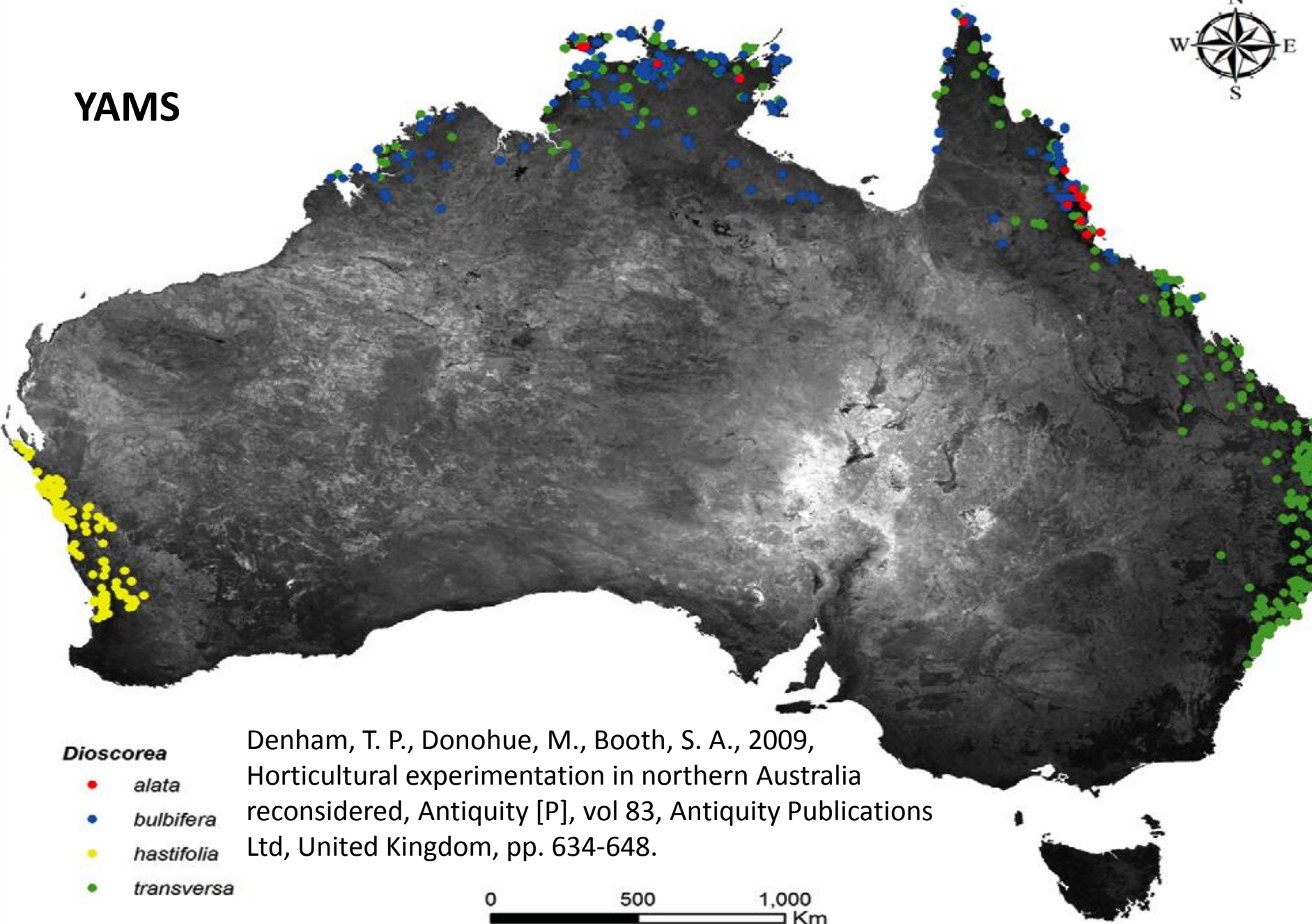


Figure 12: Spade handle spearthrowers and boomerangs depicted in the Clawed Hand Period.

## CHANGING STYLES OF SPEAR THROWER IN KIMBERLEY ROCK ART



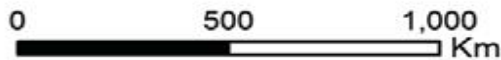
# YAMS



## *Dioscorea*

- *alata*
- *bulbifera*
- *hastifolia*
- *transversa*

Denham, T. P., Donohue, M., Booth, S. A., 2009, Horticultural experimentation in northern Australia reconsidered, *Antiquity* [P], vol 83, Antiquity Publications Ltd, United Kingdom, pp. 634-648.



120°E 130°E 140°E 150°E

Plant motifs in Kimberley rock-art, Australia: Welch

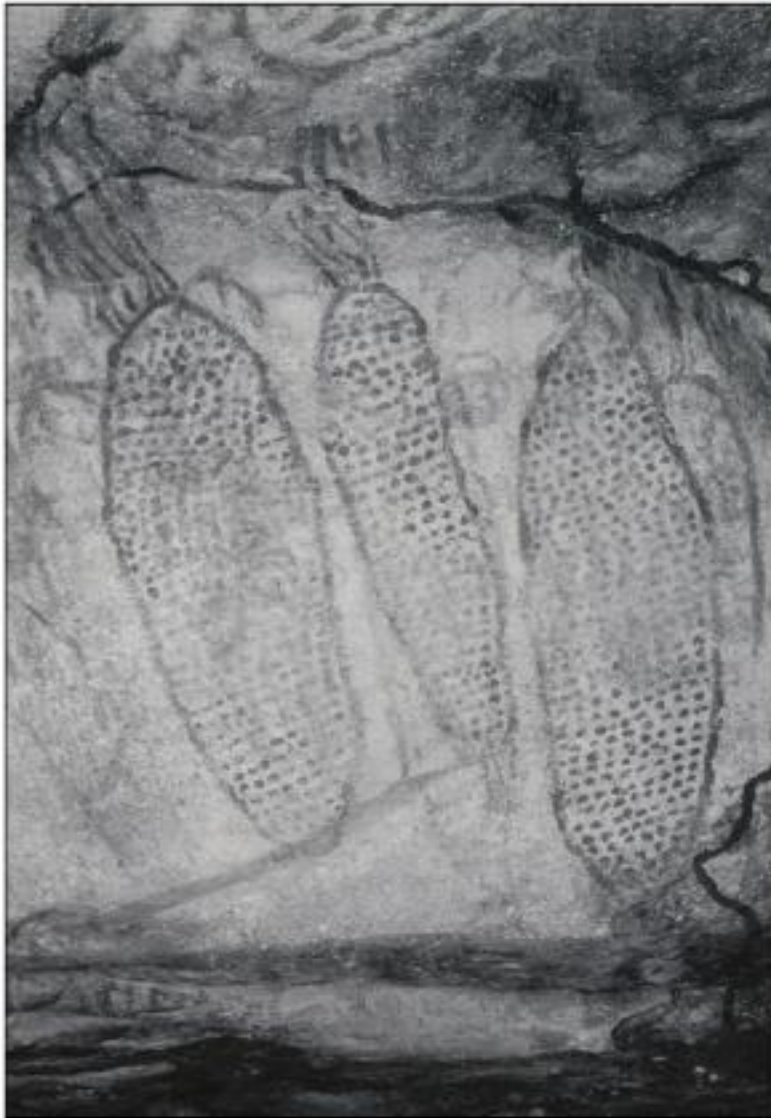


Figure 3 Row of long yams with infills of regular rows of finger-painted dots, red, 43 cm high

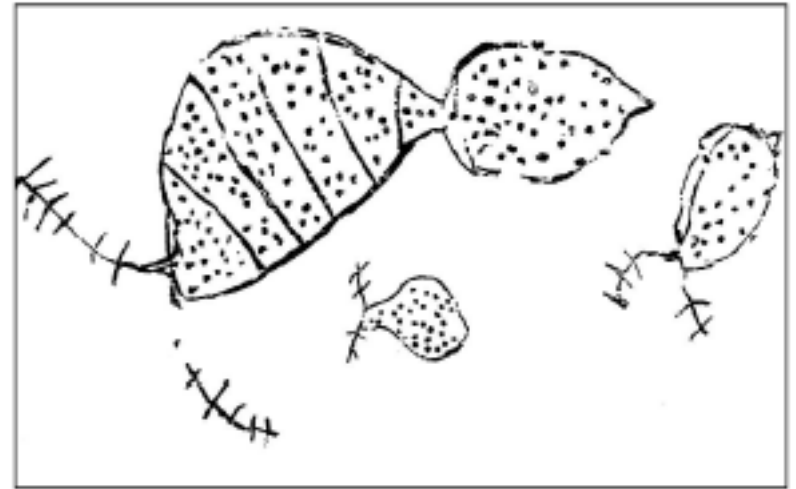


Figure 4 Early yam rock-painting, red-brown, 90 cm across

*Welch Ngarinyin*  
*'kanmangu'/'ganmangu'*  
*cf. dictionary:*

\lx kanmanku

\ge yam.

**Welch, David. 2003/4. Plant motifs in Kimberley rock-art, Australia. *Before Farming*. 5:1-13.**



Figure 7 Possible 'plant person' rock-painting with bulbs or tubers arranged above. Old purplish colour. Image cluster height approximately 2 m

## 'YAM PEOPLE'

Possibly including *Dioscorea transversa* 'Long yam' and *Dioscorea bulbifera* '*gunu*' round/hairy./cheeky yam

Associated with Bradshaw figures and similar Dynamic figures in Arnhem land: possible age 6-4000 years ago

# CONCLUSIONS

- Loanwords in Australia are generally distinguishable from inheritances and often can be chronologically stratified.
- Levels of loanwords varies from low to high, but high levels are relatively rare.
- There is a need to understand patterns of loan diffusion. These patterns result from different mechanisms, such as substratal transfers and regional or long-distance diffusions (*Wanderwörter*). Methods for distinguishing these are currently being refined.
- The reasons for *Wanderwörter* diffusion are sometimes clearly related to diffusion of technological, social or ritual innovation. This provides an important source of evidence on prehistory which can be even more valuable when combined with archaeology, rock art studies, palaeobotany etc.
- Other *Wanderwörter* are less immediately interpretable as important cultural elements in terms of recent history but repay further study eg in relation to mythology, song and ritual.