

**A new morphometric protocol for pair matching of antimeres of petrous bones in extant and fossil suids: implications for MNI estimations in archeozoological and paleontological contexts**

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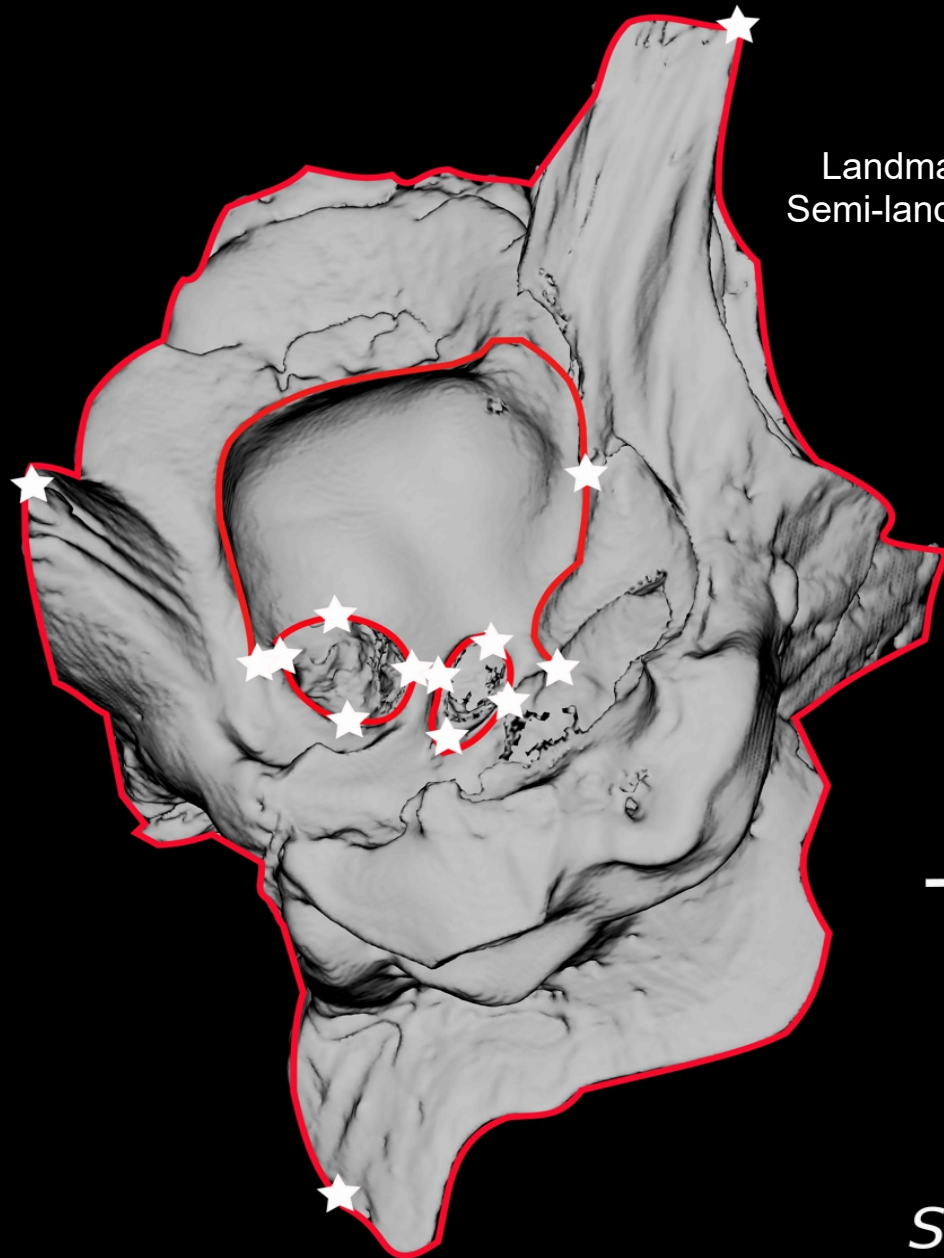
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for Archaeozoology



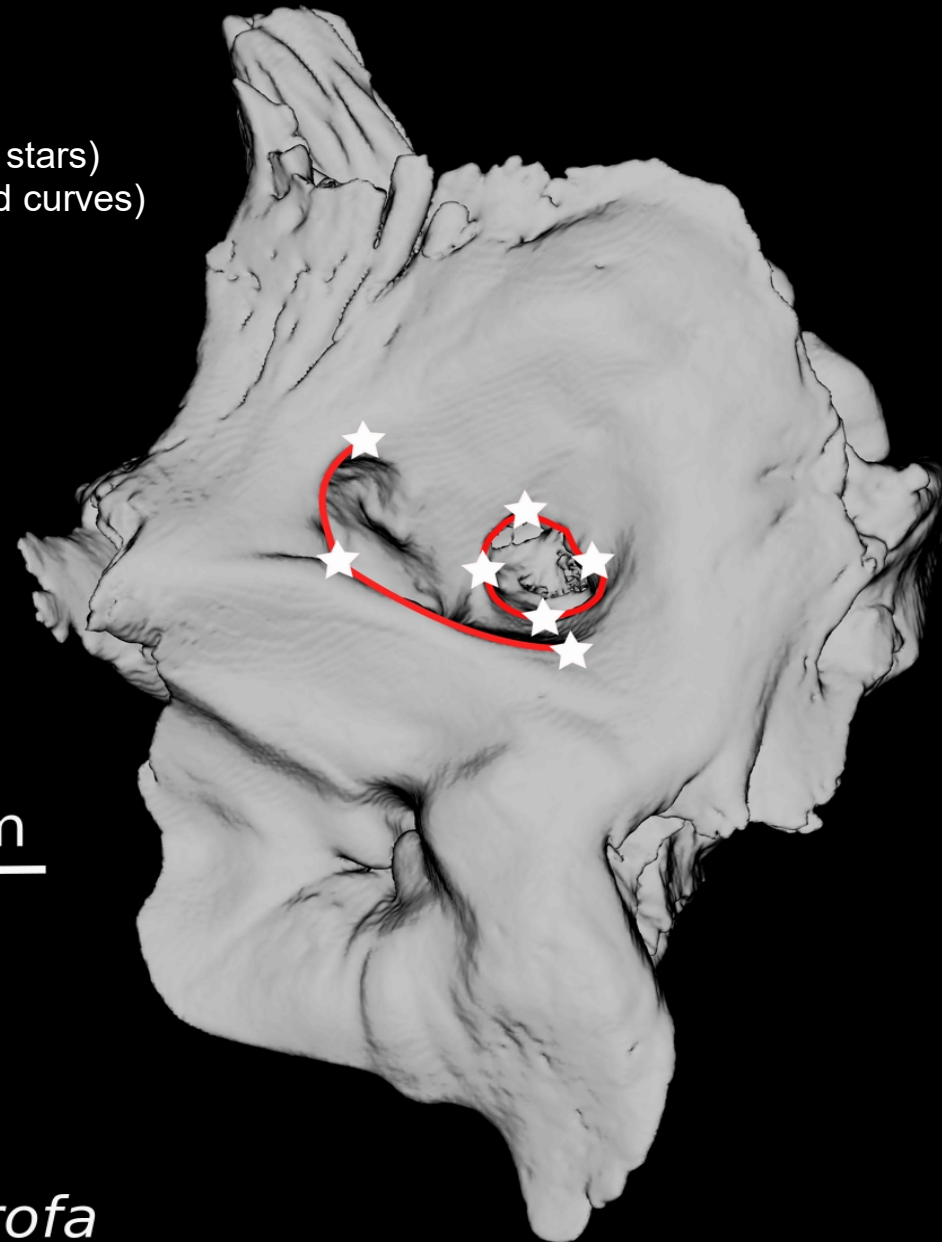
# First step : to digitize landmarks

Lateral face

Medial face



Landmarks (white stars)  
Semi-landmarks (red curves)

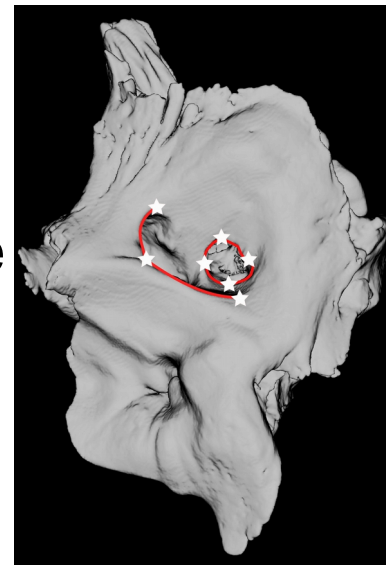


0.5 cm

*Sus scrofa*

## Second step : Multivariate statistical analysis (MFA)

- **MFA : 15 variables of PC scores including :**
  - The five main axes of PCA outline
  - The five main axes of PCA lateral face
  - The five main axes of PCA medial face



# Comparison function : results

Baltazart et *al.*, in prep.

## Intraspecific variation

Median p-values	Outline data	MFA factorial design data
<i>Sus scrofa</i>	0.51	0.5
Suidae from Ahl al Oughlam	0.34	0.38

Median p-values obtained by comparing each pair of individuals of the same taxon with each other through the comparison function.

# Comparison function : results

- Retained after applying the function :

- right-left pairings

- less than 20% difference between centroid sizes

P06	P06	0.331
P12	P17	0.357
P04	P29	0.474
P23	P27	0.672
P14	P24	0.815
P26	P28	0.865
P15	P23	0.907
P18	P18	0.918
P29	P29	0.944
P16	P32	0.947
P20	P31	0.952
P30	P30	0.966
P13	P13	1.000

<u>AaO-3613</u>	<u>AaO-2611</u>	0.320
<u>AaO-4383</u>	<u>AaO-4382</u>	0.347
<u>AaO-1405</u>	<u>AaO-290</u>	0.381
<u>AaO-4521</u>	<u>AaO-3635</u>	0.503
<u>AaO-3487</u>	<u>AaO-3488</u>	0.714
<u>AaO-3528</u>	<u>AaO-3529</u>	0.974
<u>AaO-283</u>	<u>AaO-2</u>	0.997
<u>AaO-1387</u>	<u>AaO-1386</u>	1.000
<u>AaO-1383</u>	<u>AaO-1385</u>	1.000

P-values obtained by comparing each pair of individuals of *Sus scrofa* (left) and Ahl al Oughlam Suidae (right)