



Who was buried there? Multi-disciplinary approach on Early Bronze Age people in South of France

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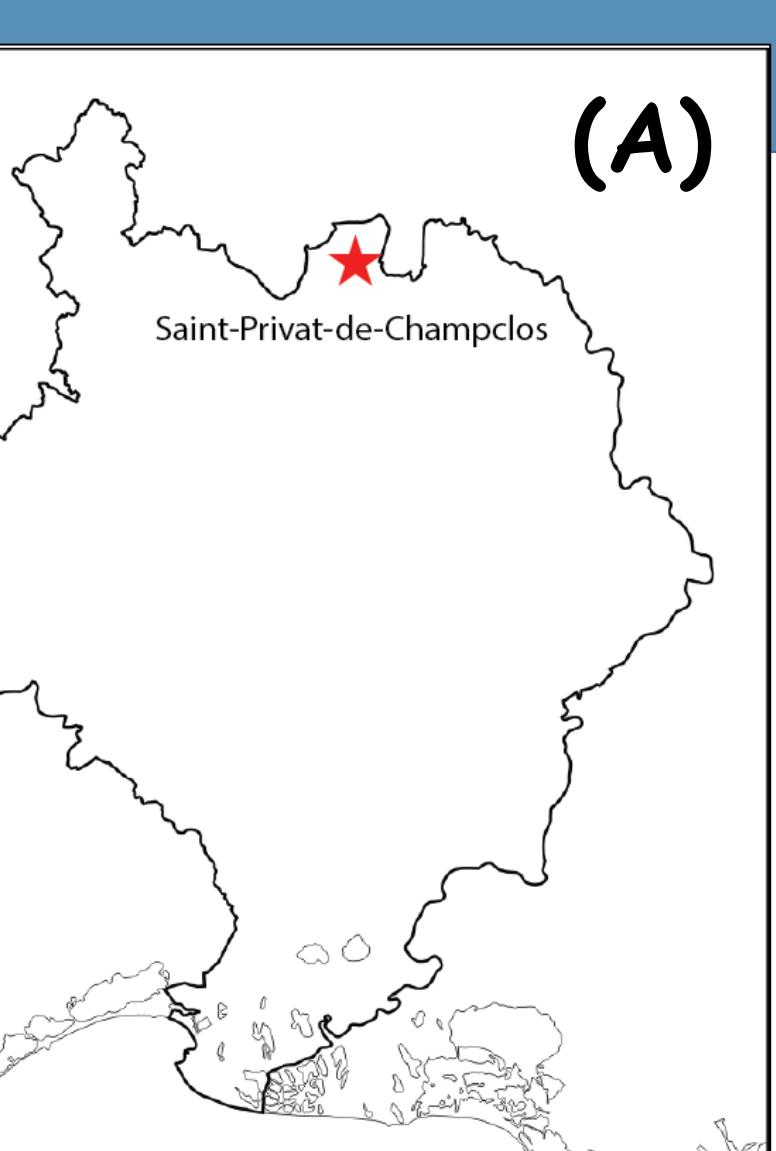
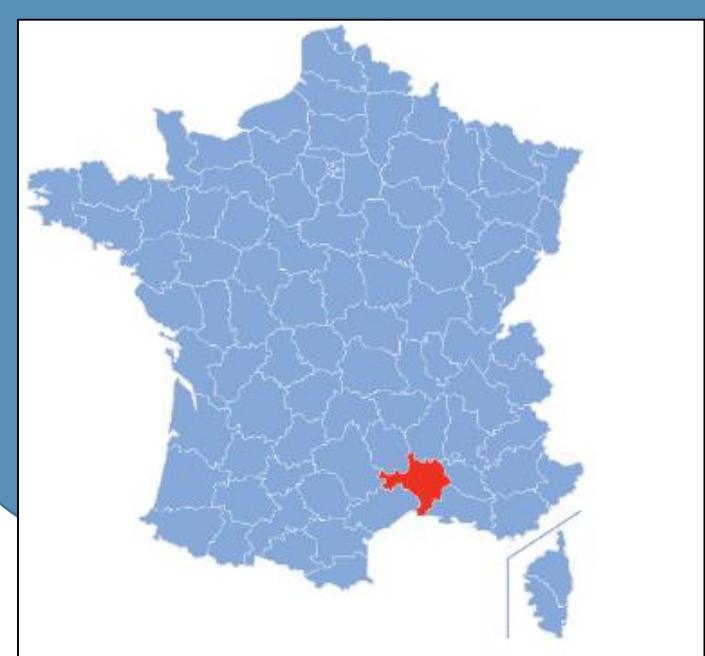
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Who was buried there?

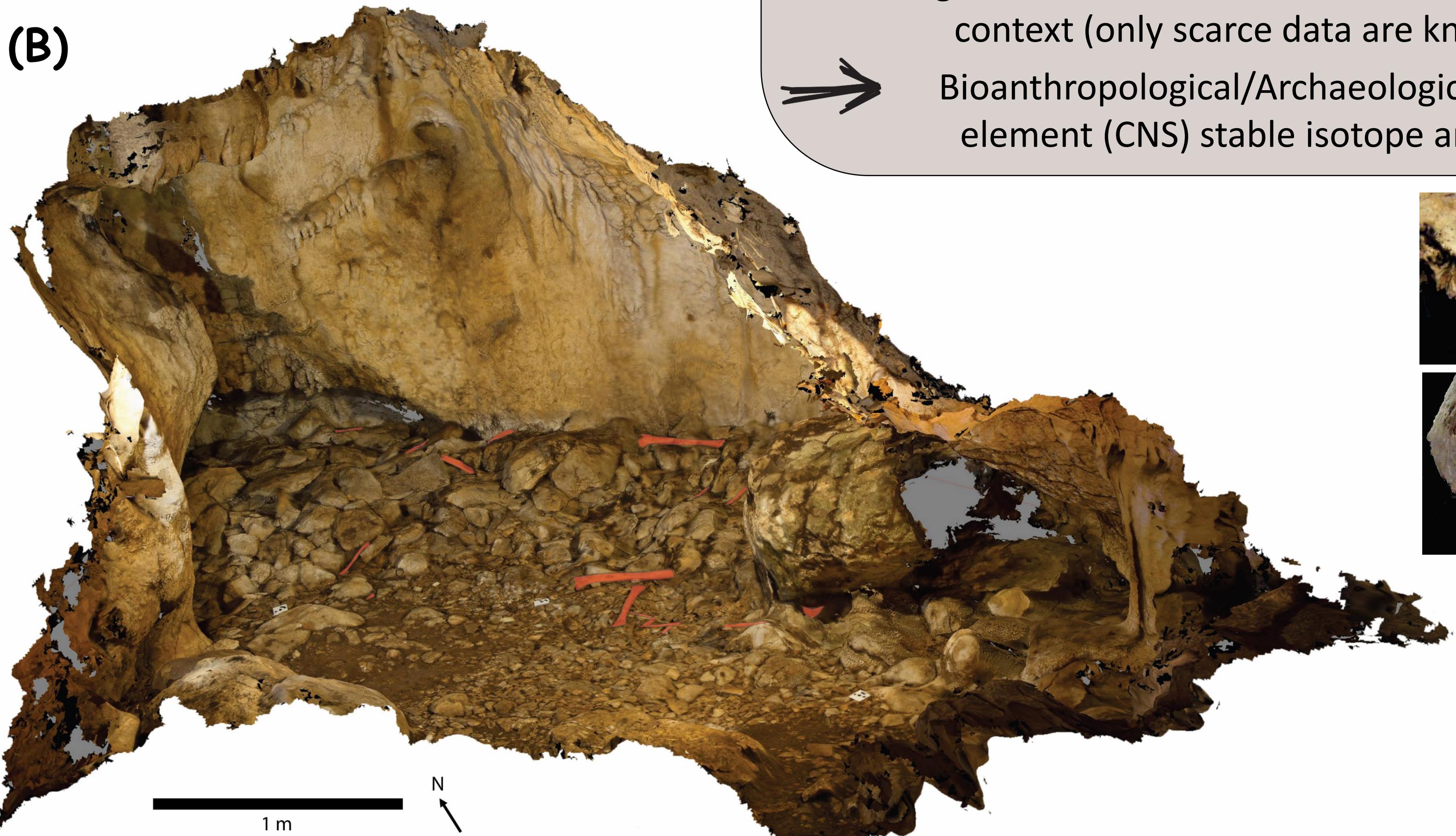
Multi-disciplinary approach on Early Bronze Age people in South of France

Mélie Le Roy and Gwenaëlle Goude

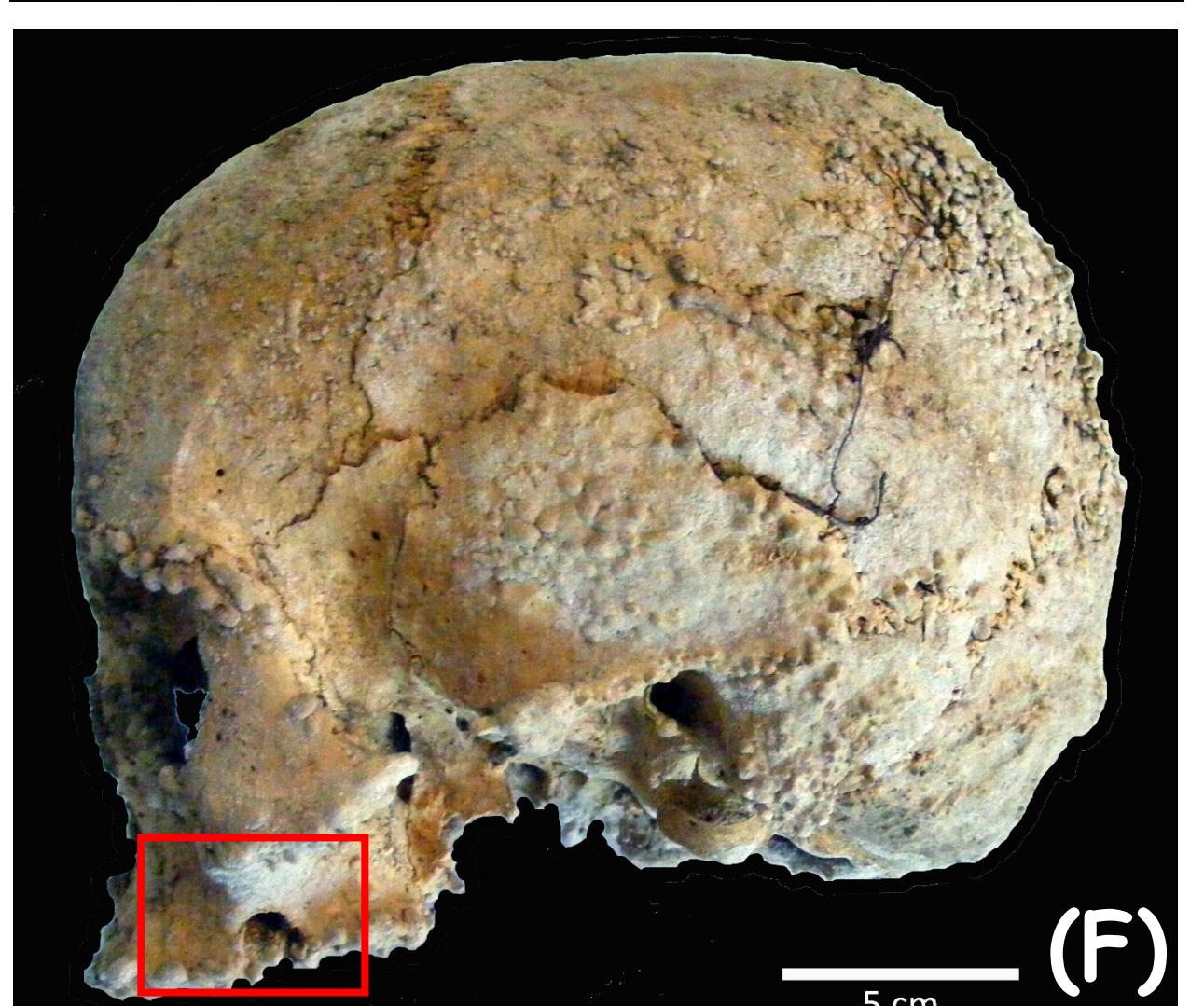
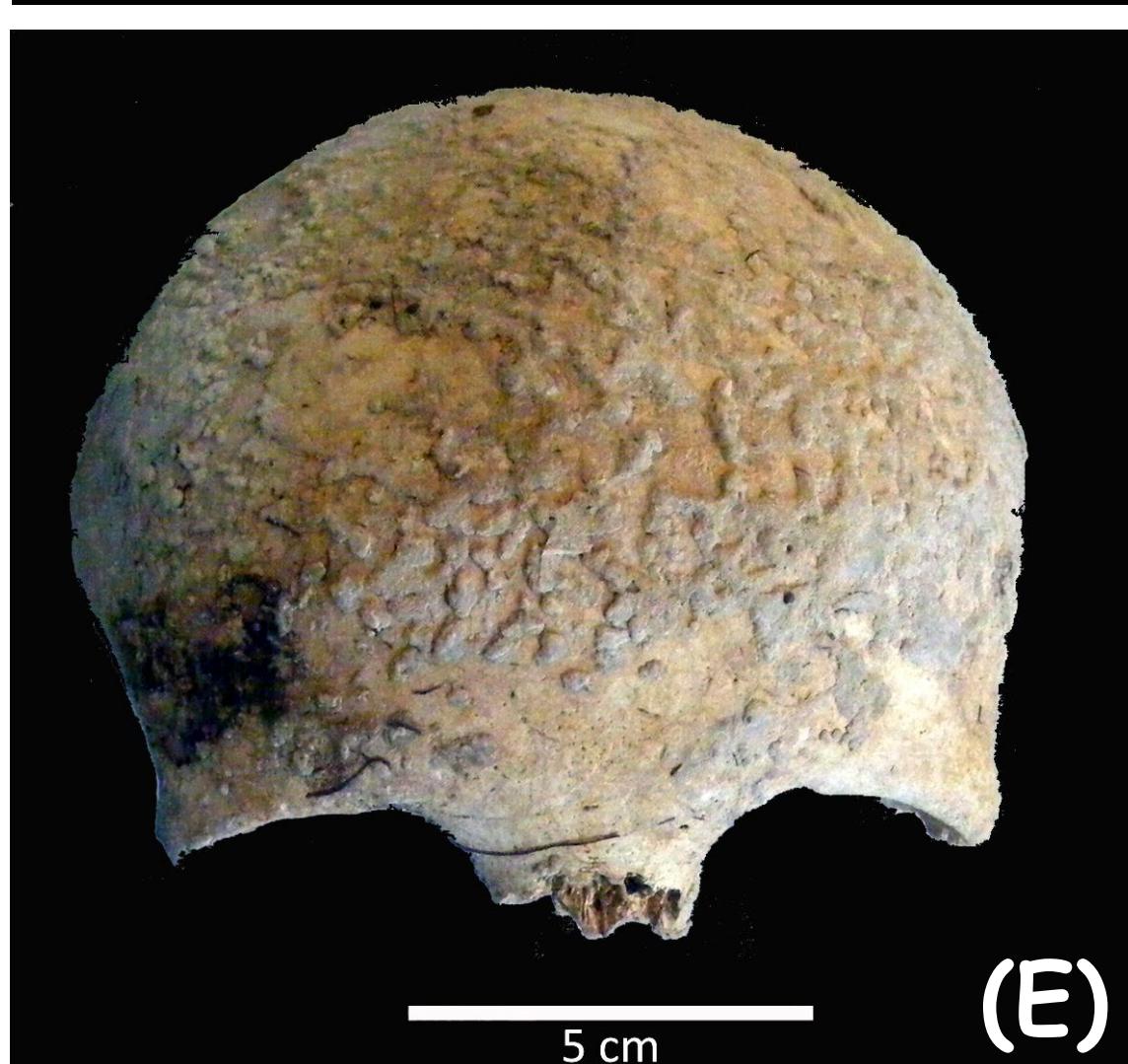
melieleroy@hotmail.fr and goude@mmsh.univ-aix.fr



(B)

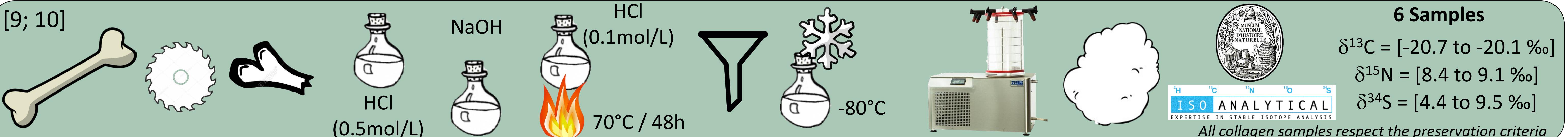


Cèze Valley (Gard) (A)
Homogenous funerary practice:
small collective burials (MNI between 3 & 15) in caves
between late Neolithic and early Bronze age [1]
Aven Janna : Sepulchral cave from
Early Bronze Age (B) [1877-1566 cal BCE]
Origin and behaviour?
Investigating population biology and economic
organisation in a successive chrono-cultural
context (only scarce data are known)
**Bioanthropological/Archaeological/Multi
element (CNS) stable isotope analyses**



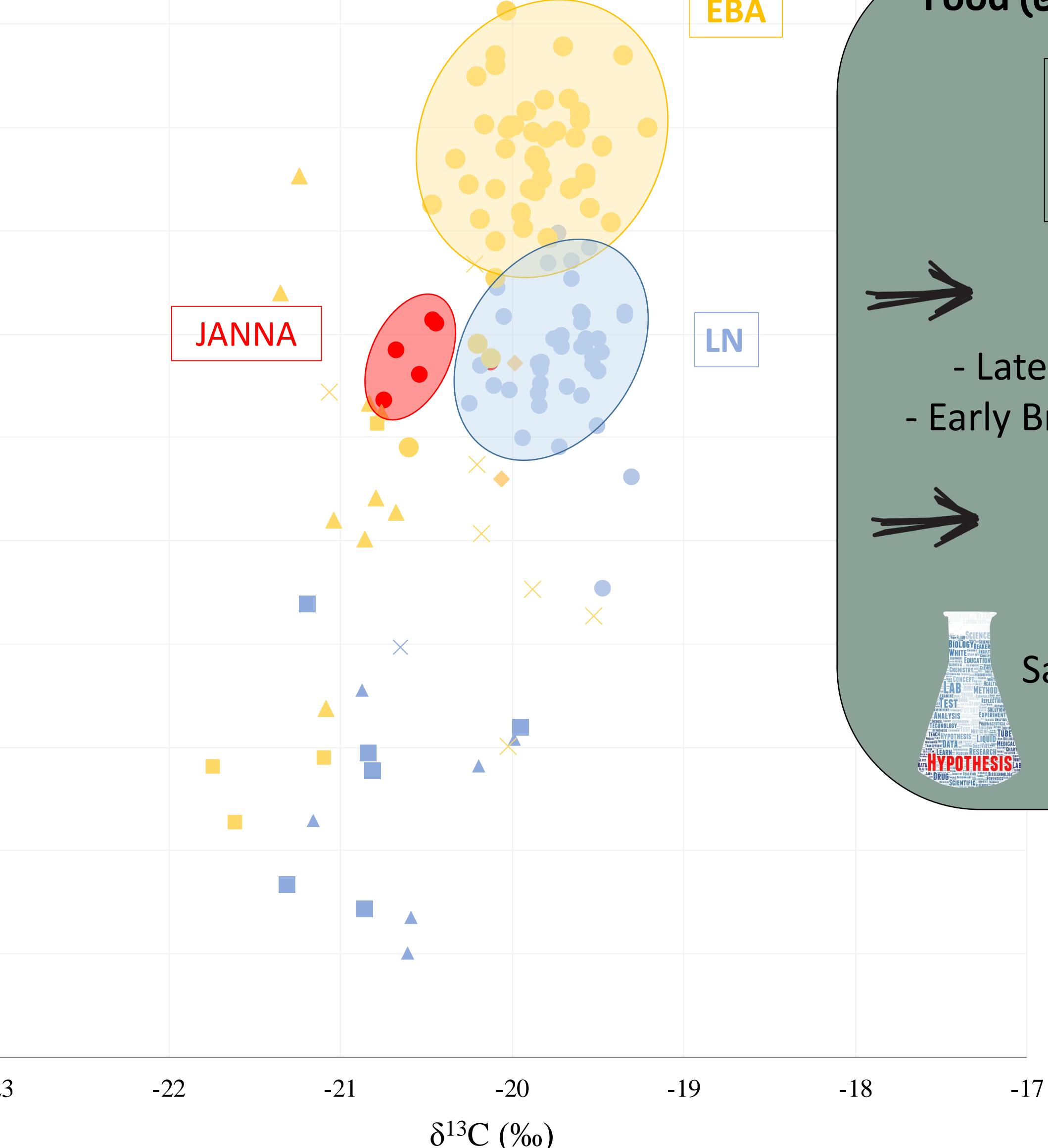
9 individuals : 6 adults (2 ♀ [20-39]; [40-50] yrs; 1 ♂ & 1 unknown [>60] yrs) (C);
3 immatures ([0]; [4-6]; [9-14] yrs) [2; 3; 4]; Stature from 1,38m to 1,83m [5; 6].
Health status : Tuberculosis (Pott's disease) (D); Anemia (*Cribraria Orbitalia*) (E);
Dental abscess (F) [7]
Possible disturbed primary deposits (only 1 leg in anatomical connexion)
and rare grave goods [8]

[9; 10]



13

(G)



Food (G)

Terrestrial food resources (plant, animal)
High homogeneity
No difference depending on the biological records

→ No direct comparison sample / animal data in progress

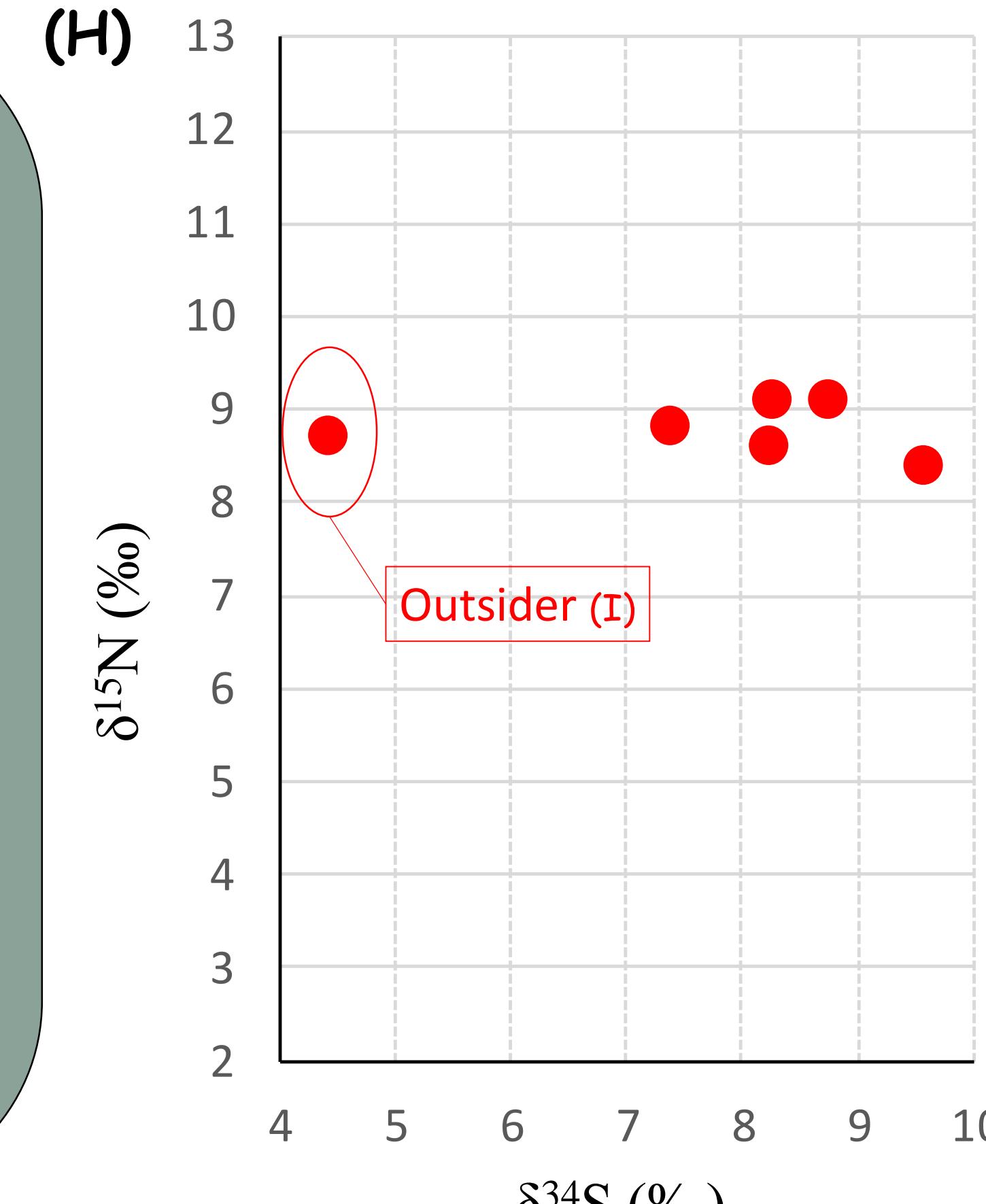
- Late Neolithic (LN) human and animal samples (Aveyron: 150km) [11]
- Early Bronze Age (EBA) human and animal samples (Auvergne: 100km) [12]

→ Wide variability (C,N) between regions and periods
Number of individuals vs environment?

Sample too small (MNI=6) to define
the whole diversity of resources

Differences in local
resources

(H)



Mobility (H)

All from the same origin

→ Except one adult [>20] (I)

Small cranium (1253 cm^3): stature vs pathology; sex? [13]

Known pattern for EBA
northern Italian caves:
possible "hospice center"
[14; 15]

Patrilocal system
[16]

(I)



Janna

First excavation and multi approach
investigation in the Cèze Valley
Exploratory work and
human and animal data in progress

Poor sanitary conditions

One outsider (S)

Same funerary practice
and alimentation

Gathered in death

No exclusion depending on
age, sex, health and origin

Comparisons with caves and other types
of collective burials in the region

Definition of the criteria of the funerary
selection

[1] Le Roy M., 2017. Rapport d'opération de fouille programmée de l'Aven Janna, SRA Occitanie; [2] Murail, P., Bruzek, J., Houët, F. and Cunha, E., 2005. DSP: a tool for probabilistic sex diagnosis using worldwide variability in hip-bone measurements. *BMSAP*, (17 (3-4)), pp.167-176; [3] Schmitt, A., 2005. Une nouvelle méthode pour estimer l'âge au décès des adultes à partir de la surface sacro-pelvienne iliaque. *BMSAP*, (17 (1-2)), pp.89-101; [4] Scheuer, L. and Black, S., 2000. Development and ageing of the juvenile skeleton. *Human osteology in archaeology and forensic science*, pp.9-22; [5] Trotter, M. and Gieser, G.C., 1958. A re-evaluation of estimation of stature based on measurements of stature taken during life and of long bones after death. *AJPA*, 16(1), pp.79-123; [6] Clevenot, E. and Houët, F., 1993. Proposition de nouvelles équations d'estimation de statura applicables pour un sexe indéterminé, et basées sur les échantillons de Trotter et Gieser. *BMSAP*, 5(1), pp.245-255; [7] Orter, D.J. and Aufderheide, A.C., 1991. Human paleopathology: current syntheses and future options; [8] Dudy, H., 2009. *The archaeology of the dead: lectures in archaeoanthropology* (Vol. 3). Oxford books; [9] Longin, R., 1971. New method of collagen extraction for radiocarbon dating. *Nature*, 230(5291), p.241; [10] Brown, T.A., Nelson, D.E., Vogel, J.S. and Luthers, J.R., 1988. Improved collagen extraction by modified Longin's method. *Radiocarbon*, 30(2), pp.171-177; [11] Herscher, E., Lheureux, J., Goude, G., Daubern, H. and Duranthon, F., 2013. Les pratiques de subsistance de la population Néolithique finale de la grotte I des Treilles (commune de Saint-Jean-et-Saint-Paul, Aveyron). *Pré. Méd.*, 4(1); [12] Herscher, E., Goude, G., Lisfranc, R., Forest, V. and Vermeulen, C., 2013. Pratiques alimentaires au Bronze ancien en Auvergne. Essai de restitution par l'analyse isotopique. *Pré. Méd.*, 4(4); [13] Le Roy M., 2018. Rapport d'opération de fouille programmée de l'Aven Janna, SRA Occitanie; [14] Capasso, L. and Piccardi, M., 1980. La Grotta dello Scoglioletto: un probabile centro nosocomiale dell'antica età del Bronzo in Toscana. *Rivista di scienze preistoriche*, (35), pp.165-183; [15] Varalli, A., Moggi-Cecchi, J., Moroni, A. and Goude, G., 2016. Dietary variability during Bronze Age in central Italy: first results. *IJO*, 26(3), pp.431-446; [16] Le Roy, M., Rivoli, M., Mendisco, F., Pernonje, M.H., Coutelier, C., Couture, C., Tillier, A.M., Rötter, S. and Deguilhoux, M.F., 2016. Distinct ancestries for similar funerary practices? A GIS analysis comparing funerary, osteological and aDNA data from the Middle Neolithic necropolis Gurgi "Les Noisats" (Yonne, France). *JAS*, 73, pp.45-54.

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