

Morell-Rovira, B.*, Tvrdý, Z., Díaz-Zorita Bonilla, M., Bickle, P., Tóth, P., Přichystal, M., Bedáňová, A., & Masclans, A. Patrilocality at the beginning of farming? An isotopic approach from SE Moravia. *Journal of World Prehistory*.

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SI -2 Tables and Figures

Fig. 1 Strontium values ($^{87}\text{Sr}/^{86}\text{Sr}$) from Moravian human, geological and animal samples, specifying the animal species. Abbreviations. Paleo BM= Paleozoic from the Bohemian Massif, Prot BM = Proterozoic from the Bohemian Massif, TQCF= Tertiary and Quaternary soils from the Carpathian Foredeep, Quat BPZ= Quaternary soils behind *Ždánický les*, Z= *Ždánický les* mountains (Carpathians).



Fig. 2 Strontium values ($^{87}\text{Sr}/^{86}\text{Sr}$) from Moravian human, geological and animal samples, including the ones from the studied archaeological sites. Abbreviations. Paleo BM= Paleozoic from the Bohemian Massif, Prot BM = Proterozoic from the Bohemian Massif, TQCF= Tertiary and Quaternary soils from the Carpathian Foredeep, Quat BPZ= Quaternary soils behind *Ždánický les*, Z= *Ždánický les* mountains (Carpathians).

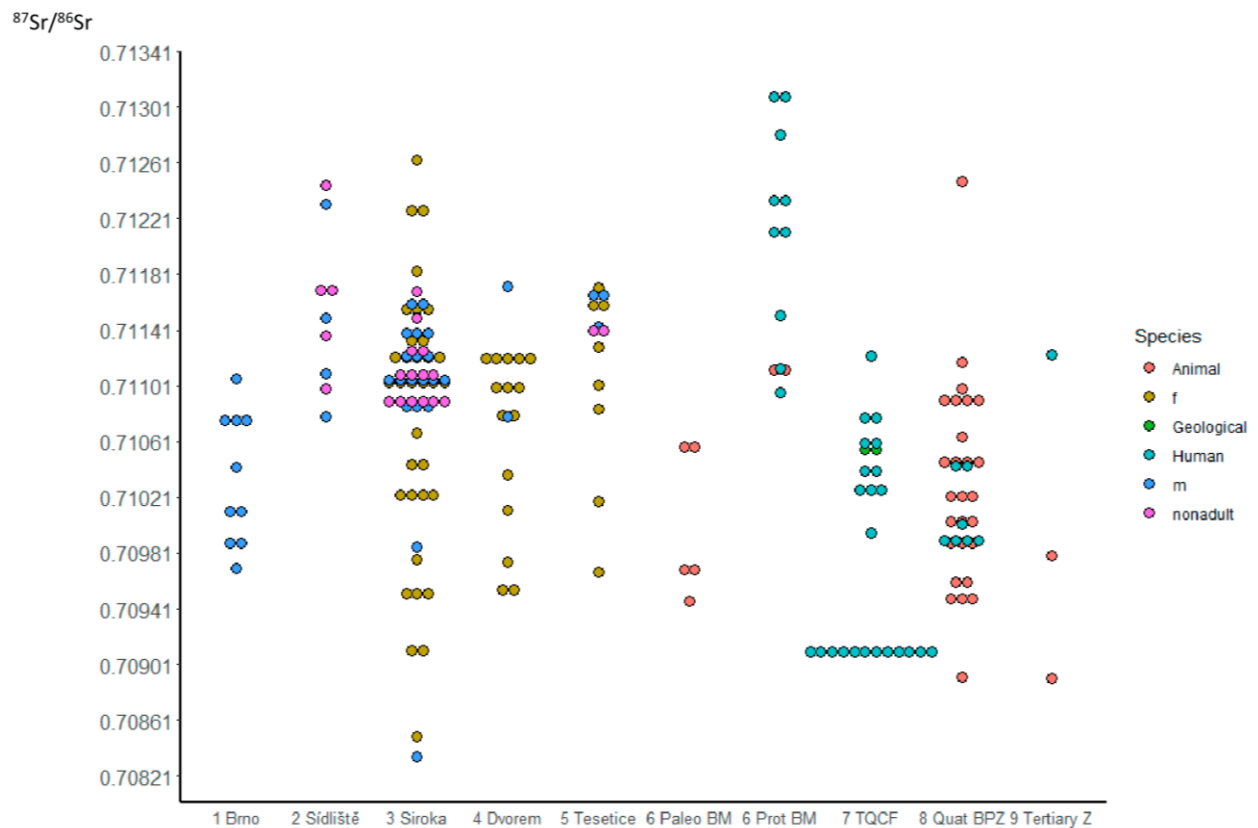


Table 1. Overlapping Phases Bayesian Models of the radiocarbon dates of the analysed sites.

Site	Cal. BC (2 σ)	Span (years)
Brno-Starý Lískovec	5575-5225/5270-4865	25-360
Vedrovice-Široká u lesa	5325-5220/5170-5030	60-250
Vedrovice-Za dvorem	5380-5130/5290-5005	0-220
Vedrovice-Sídliště	5255-5075/5175-4975	0-165
Těšetice-Kyjovice	5225-5080/5165-5030	0-130

Table 2. χ^2 test between molars and sex.

Site/Molar	χ^2 test	Df	p(no assoc)
Vedrovice - Tesetice M1	1.9765	1	0.15976
Vedrovice - Tesetice M2	1.8241	1	0.17683
Vedrovice - Tesetice M3	6.075	1	0.013711
Vedrovice - Tesetice all molars	8.0323	1	0.0045949

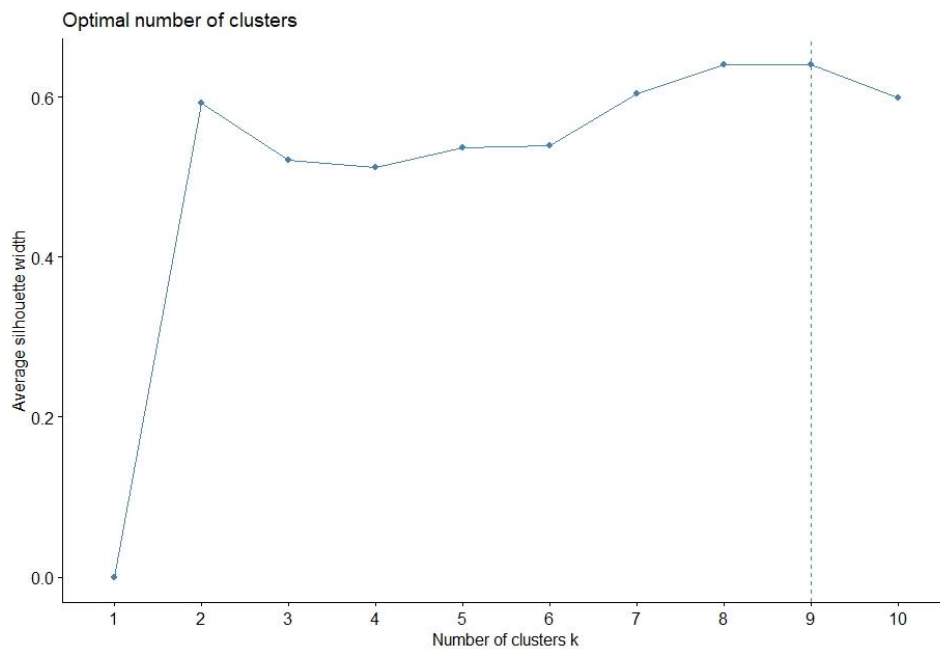
Fig. 3 Map of the 50 longest rivers of the Czech Republic (from Pavel Hrdlička, Wikipedia, creative commons).



Table 3. Shapiro Wilk results for male and female $\delta^{15}\text{N}$ values.

	Shapiro Wilk W	p(normal)
Males	0.9747	0.3811
Females	0.9618	0.3255

Fig. 4 Optimal number of clusters using Silhouette method with R function *fviz_nbclust()*. Even though the optimal number of clusters is 9 we selected 2 clusters for K-means, as in this case the appropriateness of this number is almost as optimal as a number of clusters as 9.



The table used to perform the MCA analysis, based on the presence/absence of the different grave goods and the diet (high/low) and mobility (local/non-local) clusters classifications can be consulted at SI-3.

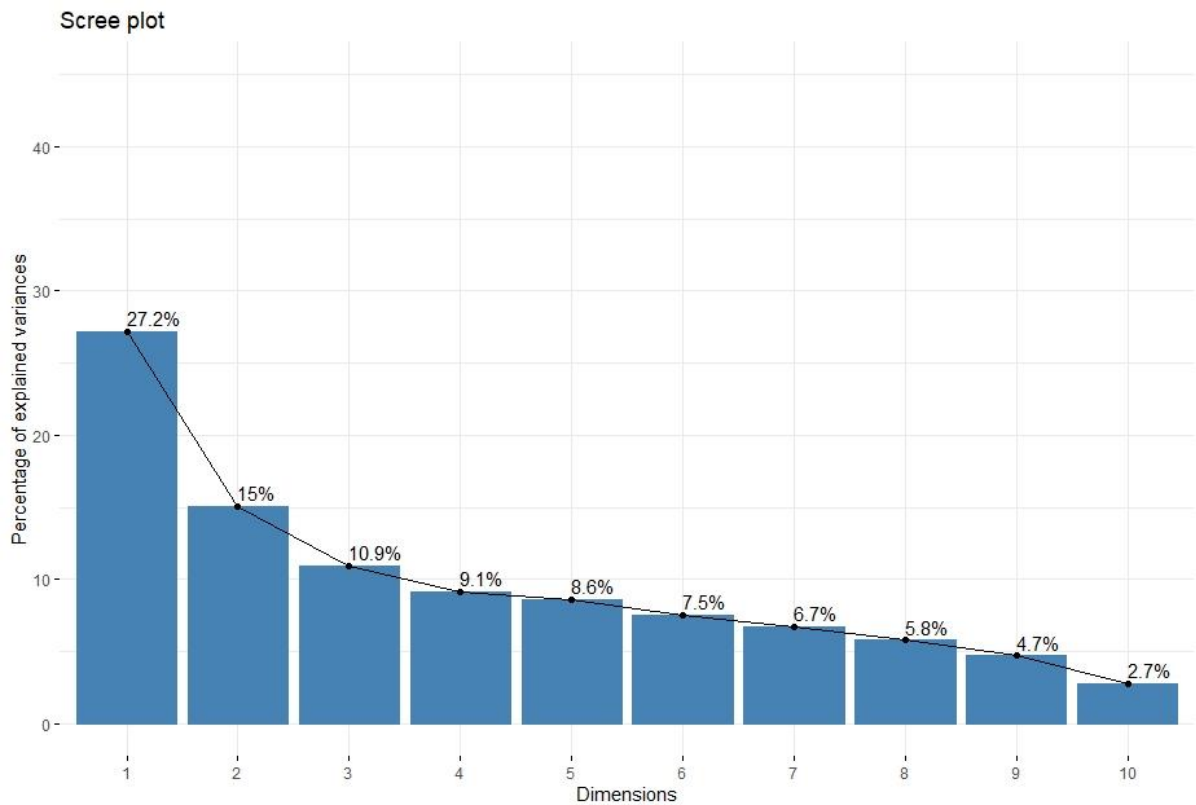
The MCA statistics have been performed using “R” software (version 4.0.1.) (1), together with the R packages "FactoMineR" and "factoextra" (2, 3) and “ggplot2” (4).

MCA()[FactoMiner package] Results:

Eigenvalue

	eigenvalue	variance.percent	cumulative.variance.percent
Dim.1	0.27169415	27.169415	27.16942
Dim.2	0.15043396	15.043396	42.21281
Dim.3	0.10910885	10.910885	53.12370
Dim.4	0.09131621	9.131621	62.25532
Dim.5	0.08603307	8.603307	70.85862
Dim.6	0.07529595	7.529595	78.38822
Dim.7	0.06705069	6.705069	85.09329
Dim.8	0.05776757	5.776757	90.87005
Dim.9	0.04705764	4.705764	95.57581
Dim.10	0.02746905	2.746905	98.32272
Dim.11	0.01677285	1.677285	100.00000

Fig. 5 Eigenvalues plot



Multiple Correspondence Analysis Results for variables

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Name      Description
1 "$coord" "Coordinates for categories"
2 "$cos2"  "Cos2 for categories"
3 "$contrib" "contributions of categories"
> # Coordinates
> (var$coord)
      Dim 1   Dim 2   Dim 3   Dim 4   Dim 5
high    0.60344291 -0.110095125 -0.350712105  0.01301794 -0.64685025
low     -0.48927804  0.089266317  0.284361166 -0.01055508  0.52447318
PBA_A   -0.44548018  0.005687948 -0.074459454 -0.06945600 -0.13797950
PBA_P    1.68646068 -0.021532947  0.281882221  0.26294059  0.52235097
Pottery_A -0.28676531 -0.292828780  0.357948564  0.25628151 -0.05110056
Pottery_P  0.48176572  0.491952350 -0.601353587 -0.43055294  0.08584893
Spondy_A  -0.20095791 -0.388296307  0.144295637 -0.31082946  0.15633015
Spondy_P   0.47225108  0.912496322 -0.339094747  0.73044924 -0.36737585
Flaked_A  -0.12152667 -0.135457997 -0.199834639  0.12978114 -0.02112790
Flaked_P   1.04165716  1.161068542  1.712868336 -1.11240980  0.18109630
Projectiles_A -0.22533335 -0.029557953  0.020983715  0.10822555  0.02002948
Projectiles_P  1.93142868  0.253353879 -0.179860412 -0.92764755 -0.17168130
Grinding_A  -0.05970728 -0.130471284  0.114184275  0.01688723 -0.09781421
Grinding_P   0.74037025  1.617843922 -1.415885005 -0.20940162  1.21289619
Bone_A     -0.24240408  0.101251414 -0.011696291 -0.19976742 -0.17217405
Bone_P      1.56215961 -0.652509109  0.075376101  1.28739005  1.10956612
Other_orn_A -0.06074832 -0.203927253 -0.198408895 -0.09007353  0.10336815
Other_orn_P  0.44801885  1.503963491  1.463265599  0.66429228 -0.76234013
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f      -0.59997646 0.327510146 -0.104869531 0.21542317 0.03863989
m      0.88885402 -0.485200217 0.155362268 -0.31914544 -0.05724428
local  0.25467219 -0.307529706 0.004889482 0.07608319 -0.17259920
no_local -0.64338238 0.776917152 -0.012352376 -0.19221017 0.43604010
> # Cos2: quality on the factore map
> (var$cos2)
      Dim 1      Dim 2      Dim 3      Dim 4      Dim 5
high  0.29525136 0.0098277864 9.972890e-02 0.0001374054 0.339255609
low   0.29525136 0.0098277864 9.972890e-02 0.0001374054 0.339255609
PBA_A 0.75128481 0.0001224783 2.098880e-02 0.0182628026 0.072073727
PBA_P 0.75128481 0.0001224783 2.098880e-02 0.0182628026 0.072073727
Pottery_A 0.13815369 0.1440578065 2.152537e-01 0.1103427588 0.004386928
Pottery_P 0.13815369 0.1440578065 2.152537e-01 0.1103427588 0.004386928
Spondy_A 0.09490259 0.3543189522 4.892989e-02 0.2270451439 0.057431922
Spondy_P 0.09490259 0.3543189522 4.892989e-02 0.2270451439 0.057431922
Flaked_A 0.12658913 0.1572760184 3.422904e-01 0.1443698147 0.003826185
Flaked_P 0.12658913 0.1572760184 3.422904e-01 0.1443698147 0.003826185
Projectiles_A 0.43521529 0.0074886219 3.774140e-03 0.1003951643 0.003438688
Projectiles_P 0.43521529 0.0074886219 3.774140e-03 0.1003951643 0.003438688
Grinding_A 0.04420549 0.2110821738 1.616718e-01 0.0035362126 0.118638480
Grinding_P 0.04420549 0.2110821738 1.616718e-01 0.0035362126 0.118638480
Bone_A 0.37867386 0.0660674696 8.816208e-04 0.2571785906 0.191038495
Bone_P 0.37867386 0.0660674696 8.816208e-04 0.2571785906 0.191038495
Other_orn_A 0.02721639 0.3066991435 2.903249e-01 0.0598351499 0.078801692
Other_orn_P 0.02721639 0.3066991435 2.903249e-01 0.0598351499 0.078801692
f      0.53329149 0.1589079940 1.629277e-02 0.0687513235 0.002211912
m      0.53329149 0.1589079940 1.629277e-02 0.0687513235 0.002211912
local  0.16385160 0.2389251033 6.039672e-05 0.0146239640 0.075260174
no_local 0.16385160 0.2389251033 6.039672e-05 0.0146239640 0.075260174
> # Contributions to the principal components
> (var$contrib)
      Dim 1      Dim 2      Dim 3      Dim 4      Dim 5
high  5.4556419 0.327977505 4.588759695 0.007554231 19.79683819
low   4.4234934 0.265927707 3.720615969 0.006125052 16.05149042
PBA_A 5.2527274 0.001546585 0.365416471 0.379909442 1.59137338
PBA_P 19.8853250 0.005854929 1.383362353 1.438228601 6.02448495
Pottery_A 1.7248635 3.248354613 6.692110258 4.098910843 0.17296873
Pottery_P 2.8977706 5.457235749 11.242745234 6.886170217 0.29058747
Spondy_A 0.9478951 6.391620868 1.216961407 6.747250565 1.81155038
Spondy_P 2.2275535 15.020309039 2.859859307 15.856038828 4.25714339
Flaked_A 0.4425340 0.992995256 2.979650597 1.501616612 0.04224069
Flaked_P 3.7931487 8.511387906 25.539862263 12.870999530 0.36206309
Projectiles_A 1.5214385 0.047280991 0.032854022 1.044228302 0.03796277
Projectiles_P 13.0409013 0.405265640 0.281605906 8.950528304 0.32539515
Grinding_A 0.1103821 0.951936961 1.005256367 0.026271992 0.93554063
Grinding_P 1.3687374 11.804018320 12.465178956 0.325772698 11.60070376
Bone_A 1.7020019 0.536311131 0.009867268 3.439235750 2.71163025
Bone_P 10.9684569 3.456227287 0.063589058 22.163963725 17.47495049
Other_orn_A 0.1087359 2.213039560 2.888330168 0.711264275 0.99424314
Other_orn_P 0.8019269 16.321166758 21.301434992 5.245574027 7.33254313
f      7.1908567 3.869867868 0.547055251 2.758223487 0.09418868
m      10.6531211 5.733137582 0.810452224 4.086257018 0.13953879
local  1.5547355 4.094510704 0.001427051 0.412860500 2.25520430
no_local 3.9277528 10.344027041 0.003605181 1.043016000 5.69735822

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