

Description of Additional Supplementary Information

Supplementary Data 1. Interactive HTML widget of the three-dimensional scatterplot of the semicircular canal shape space. The first three principal components (PCs; 48.1% of shape variance) of the principal component analysis performed on the deformation-fields (raw shape data) obtained from the diffeomorphometric shape analysis are shown. 95% confidence ellipsoids, 3D convex hulls, and symbols are colored as follows: blue = Sima de los Huesos; purple = Krapina; green = late Neanderthals; orange = modern humans.

Supplementary Data 2. Excel spreadsheet with scanning and collection details. Additional information regarding the CT and microCT scans of specimens used in the study.

Supplementary Data 3. Atlas of momenta for the analyzed specimens—i.e., raw shape data—and control points obtained from diffeomorphometry analysis of the vestibular apparatus for the analyses described and discussed in the main text and supplementary material.

Supplementary Code 1. Commented code used for the analyses described and discussed in the main text and supplementary material. Additional data containing metadata required for running the analyses described and discussed in the main text and supplementary material is also provided as excel spreadsheets.