EVAN Toolbox (ET) Training Day

EVAN-SOCIETY
setting landmarks in science

human evolution & archaeological sciences

Form and shape analysis for biological objects

Wednesday, 14th December 2022, 10:00-17:00

Online Event (Zoom)

Organised by the EVAN-Society (www.evan-society.org), and Human Evolution and Archaeological Sciences HEAS (www.heas.at)

Scheduled Teachers: Gerhard Weber, Cinzia Fornai

Agenda (may deviate according to needs of participants):

10:00 - 11:00 What is the EVAN-Toolbox (ET)?
Basic concepts of Geometric Morphometrics
(landmarks, distances, coordinates, shape variables, size)
How the user interface of ET works, what are Visual Programming Networks (VPNs)?
Building our first VPN - a simple Generalized Procrustes Analysis (GPA)
VPNs: created by participants

11:15 - 13:00 Using the pre-defined GPA VPN, tuning the GPA node
Principal Component Analysis (PCA), using the PCA VPN
Warping and transformation grids, using the 3D Warper
Visualizing sexual dimorphism, using Group Means VPN
Examining allometry, concept of form space
VPNs: GPA, PCA, Group Means

13:00 - 14:00 Lunch

14:00 - 15:00 Biological interpretations of the results, links to other packages
Regression of shape on size and sex
Reflected Relabeling, symmetrize specimens
VPNs: Regression, Reflected Relabeling

15:00 – 15:15 Coffee break

15:15 - 17:00 Semilandmarks (sLM): Why and when use them?
ET Templand: Creating LM and sLM on curves and surfaces (human molar)
The **new "Slide All" and "Consensus"-feature** for large samples
Export LM & sLM to ET Core and Excel
VPNs: Templand

Please download the manuals and example data at https://www.evan-society.org/support/et-open-space/ in advance. You will receive a link to download a free version of ET before the workshop.
Please have your own laptop and mouse ready with ET installed and example data downloaded. Win PCs with NVIDIA graphics cards will work best, but alternatively a Mac with windows emulation would most likely also do.