

EVAN Toolbox (ET) Training Day



Form and shape analysis for biological objects

Wednesday, 18th September 2019, 10:00-17:00

[4000 Liège, Place de la République française, Charlemagne building, 7th floor](#)

Organised by the EVAN-Society (www.evan-society.org),

Scladina Cave Archaeological Centre (<https://www.scladina.be/>)

Scheduled Teachers: Gerhard Weber, Paul O'Higgins, 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** Some background of GPA, using the pre-defined GPA VPN, tuning the GPA node
Background of Principal Component Analysis (PCA), using the PCA VPN
Background of 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 at <https://www.evan-society.org/support/et-open-space/> in advance.

Please bring your own laptop and mouse, preferably a Win PC with NVIDIA graphics card, alternatively a Mac with windows emulation.