

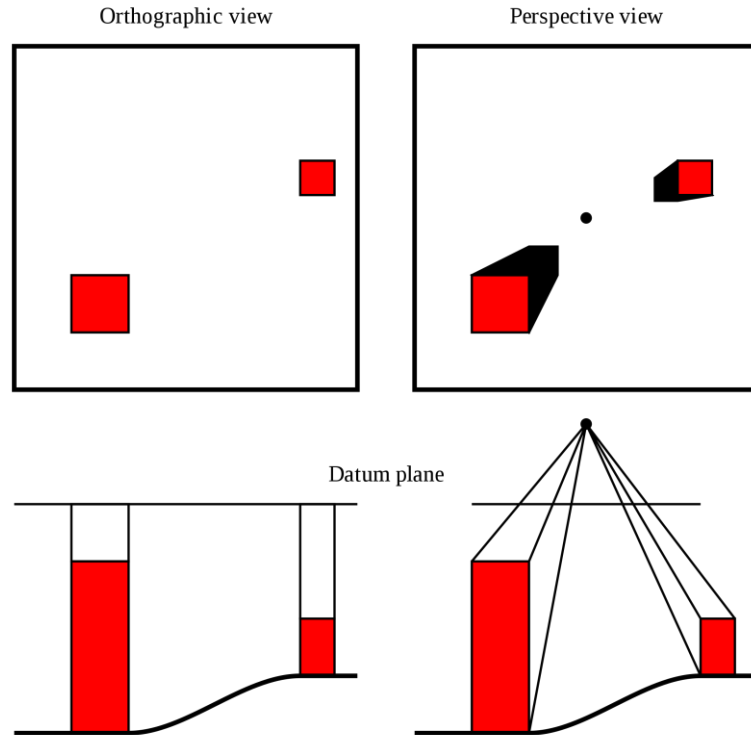
ORTHOPHOTO

An orthophoto or orthoimage is an image from above that has been geometrically corrected (“orthorectified”) such that the scale is uniform across all the image points.

An orthoimage can be used to measure true distances.

An orthomosaic is an image made by merging orthophotos

ORTHOPHOTO



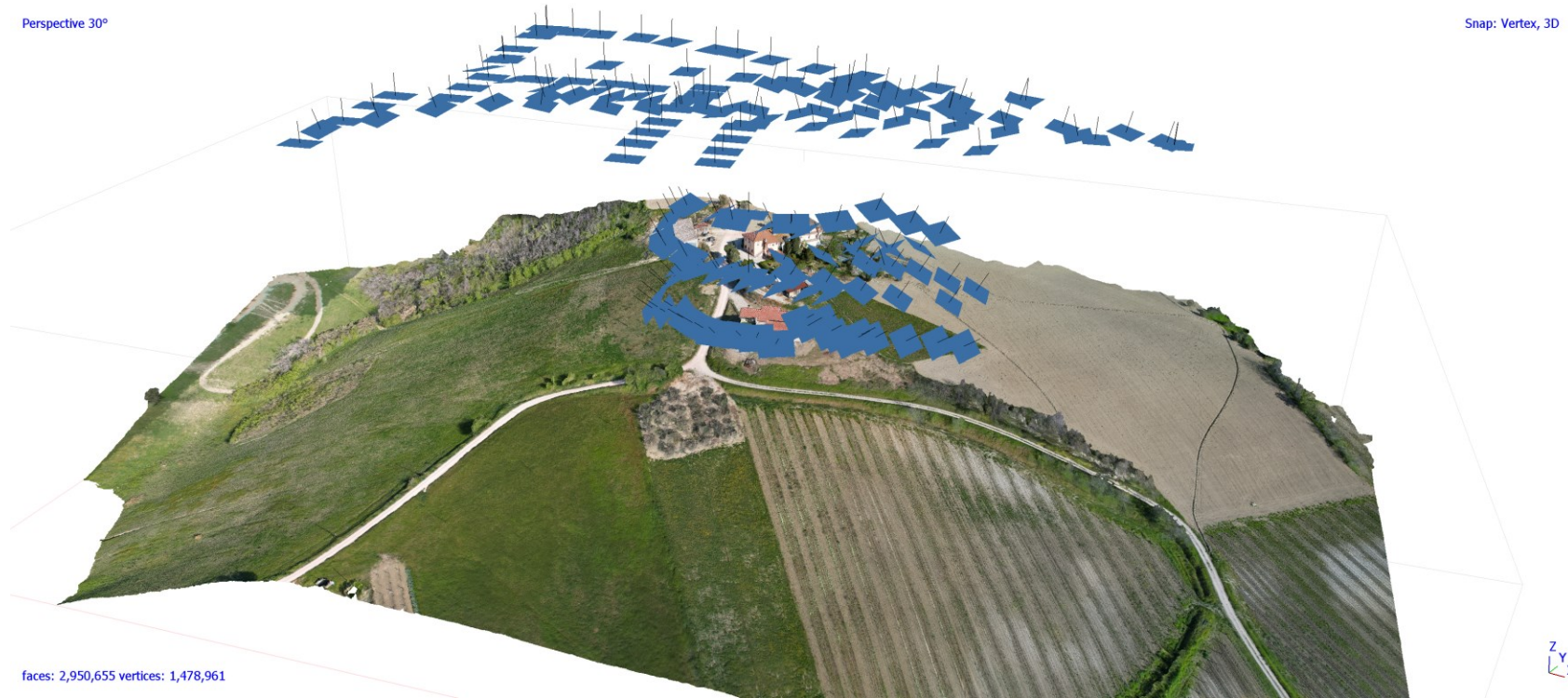
An orthoimage is produced through orthographic projection in which all the projection lines are orthogonal to the projection plane.

WHICH IMAGE IS THE ORTHOMOSAIC? HOW CAN YOU RECOGNIZE THEM?



ORTHOMOSAIC IN METASHAPE

Perspective 30°



faces: 2,950,655 vertices: 1,478,961

Snap: Vertex, 3D



Build Orthomosaic

Projection

Type: Geographic Planar Cylindrical

WGS 84 (EPSG::4326)

Parameters

Surface: Mesh

Blending mode: Mosaic (default)

Refine seamlines

Enable hole filling

Enable back-face culling

Pixel size (°): 3.03116e-07 X

Metres... 2.22588e-07 Y

Max. dimension (pix): 4096

Region

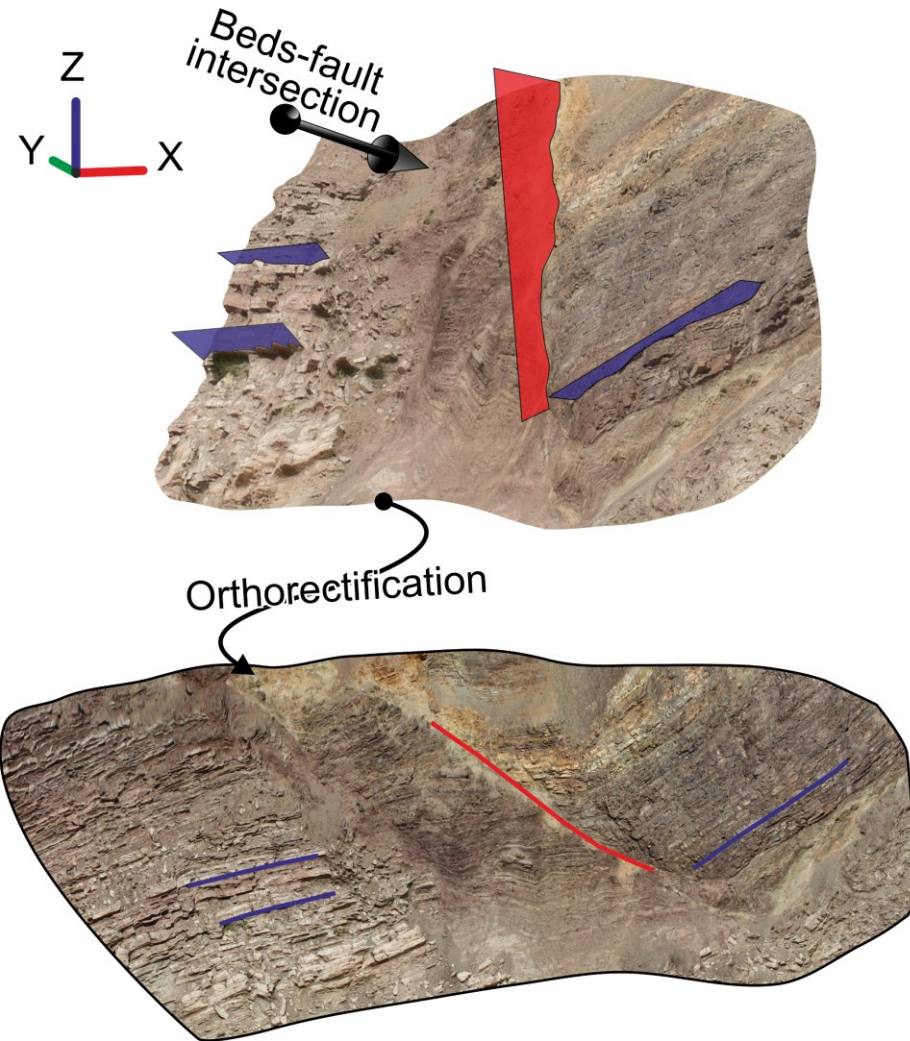
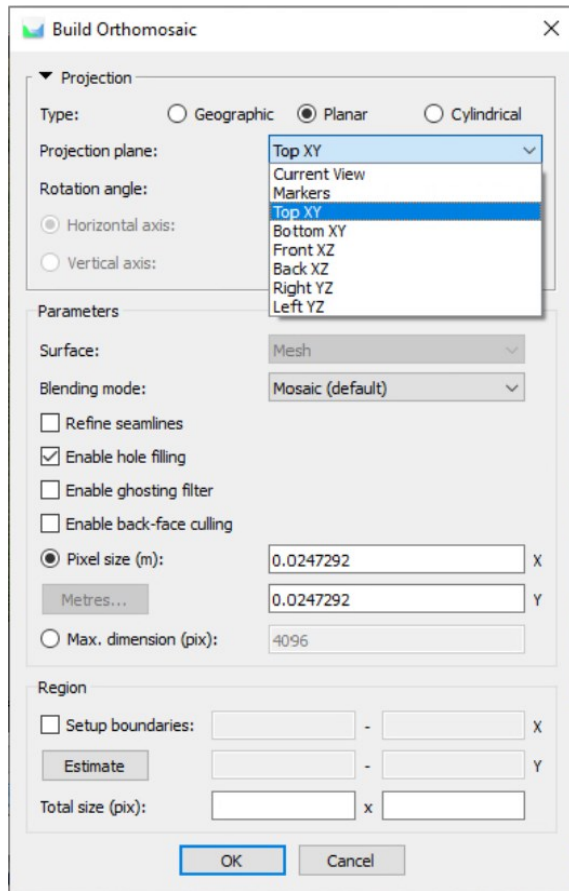
Setup boundaries: [] - [] X

Estimate [] - [] Y

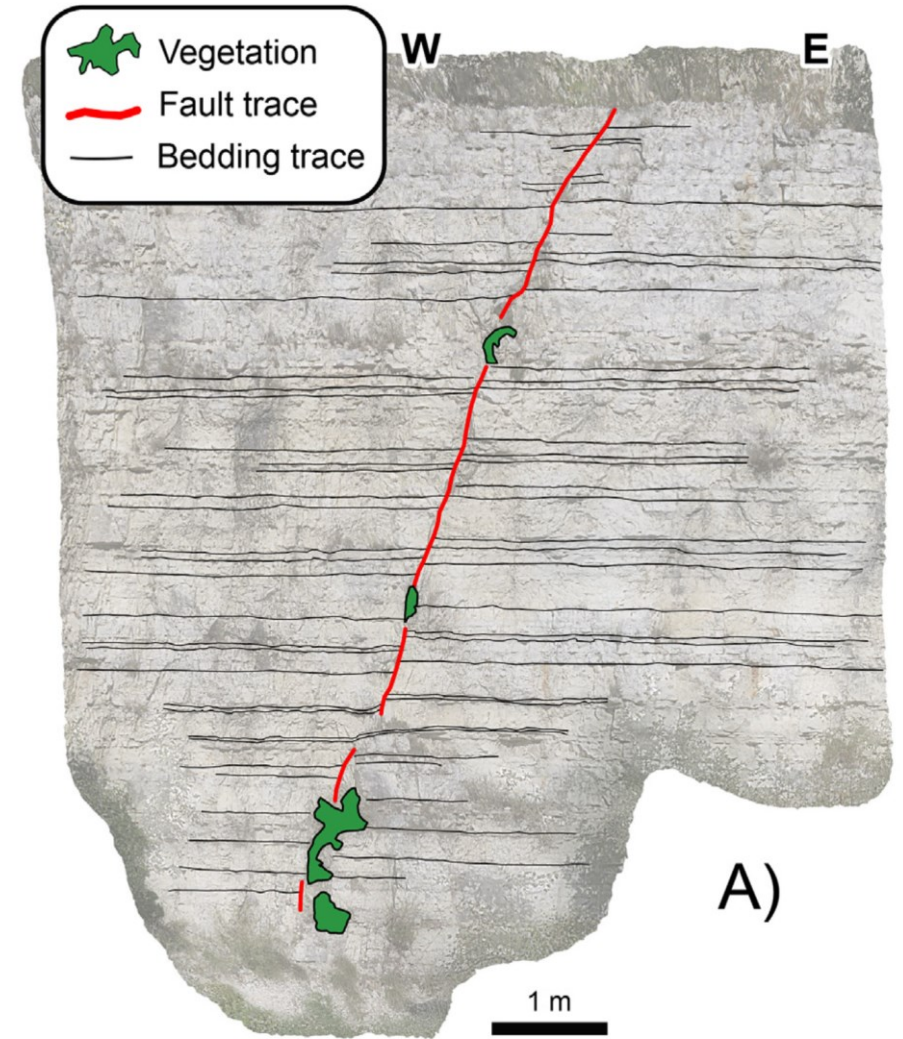
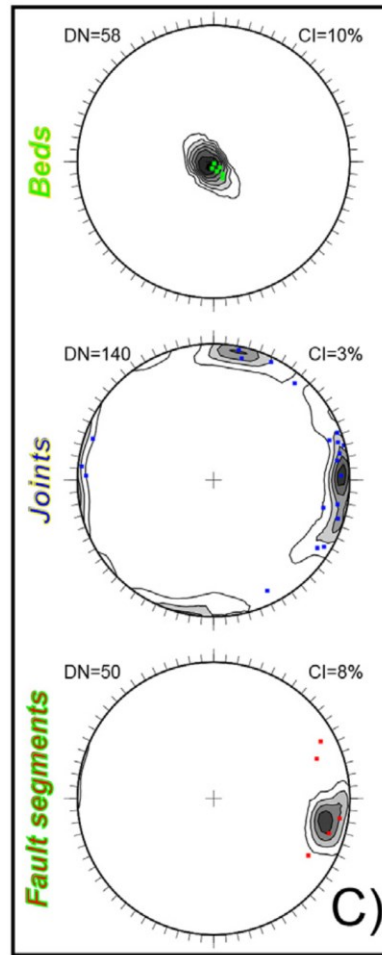
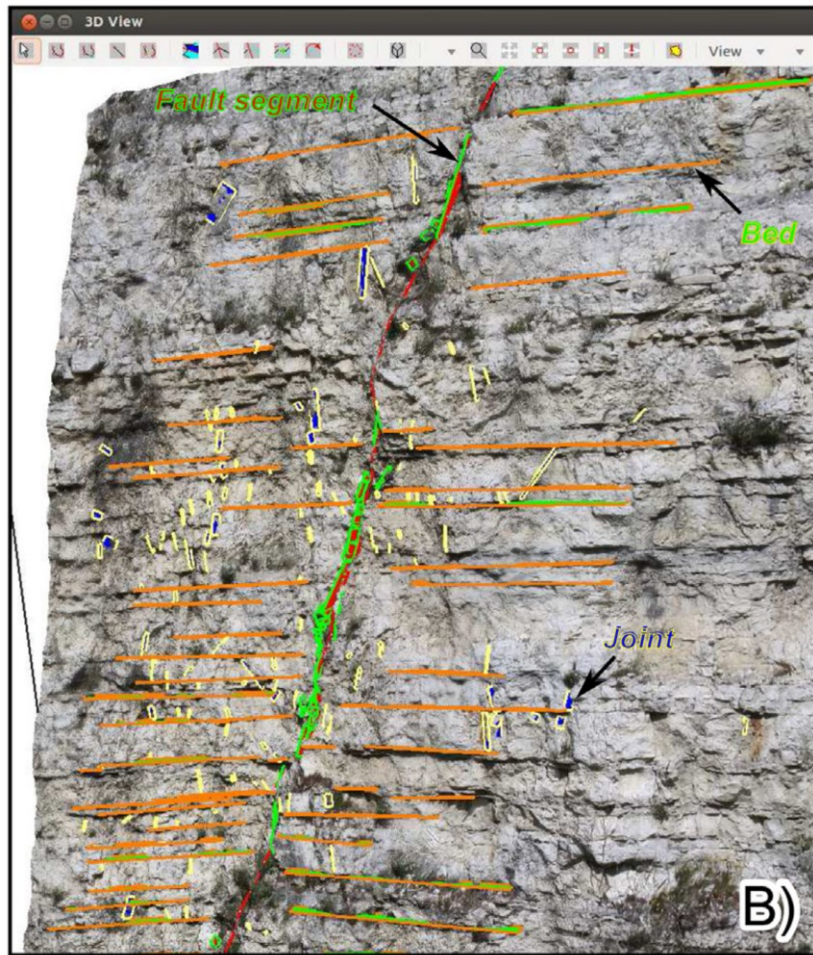
Total size (pix): [] x []

OK Cancel

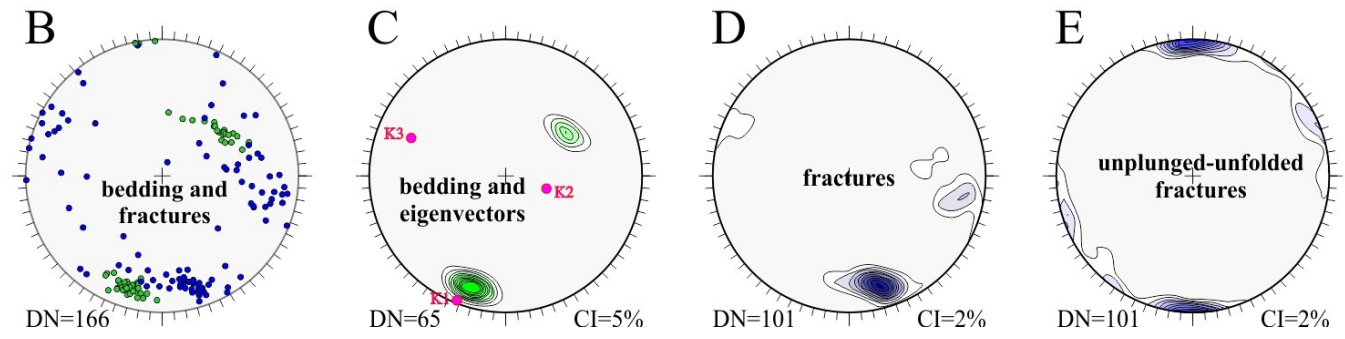
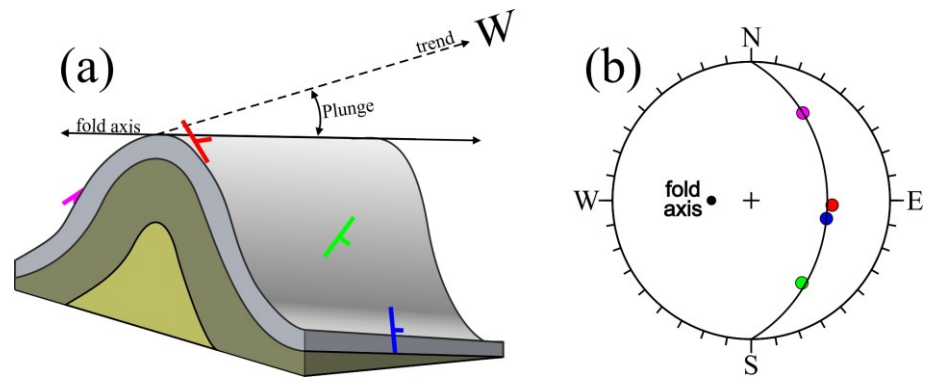
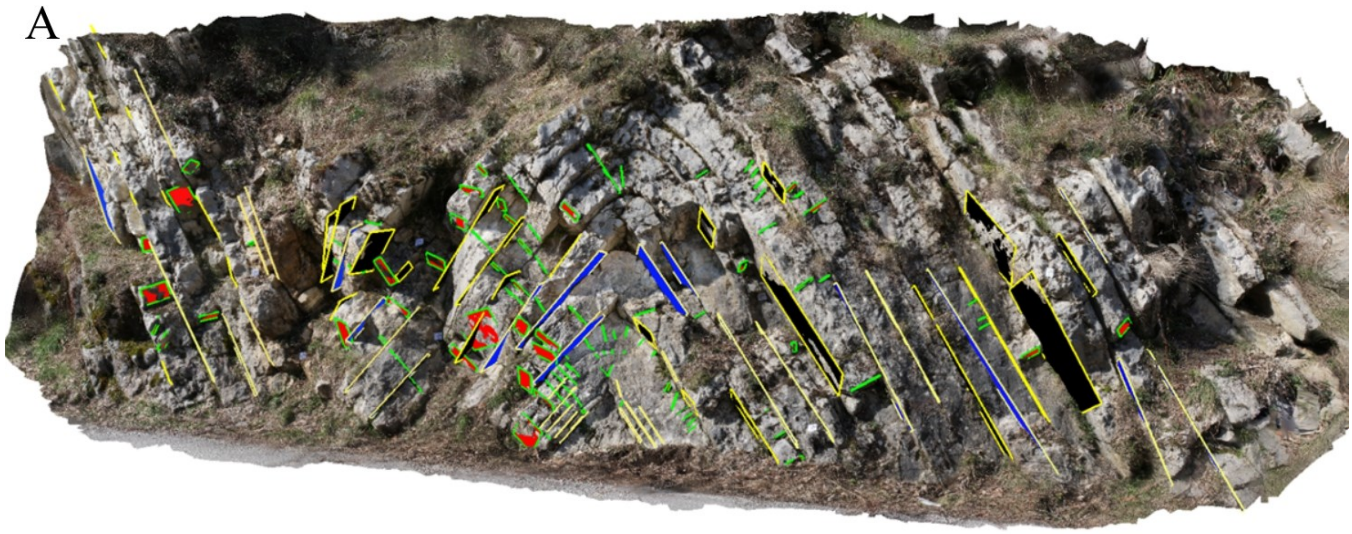
ORTHOMOSAICS OF VOMs



ORTHOMOSAIS OF VOMS

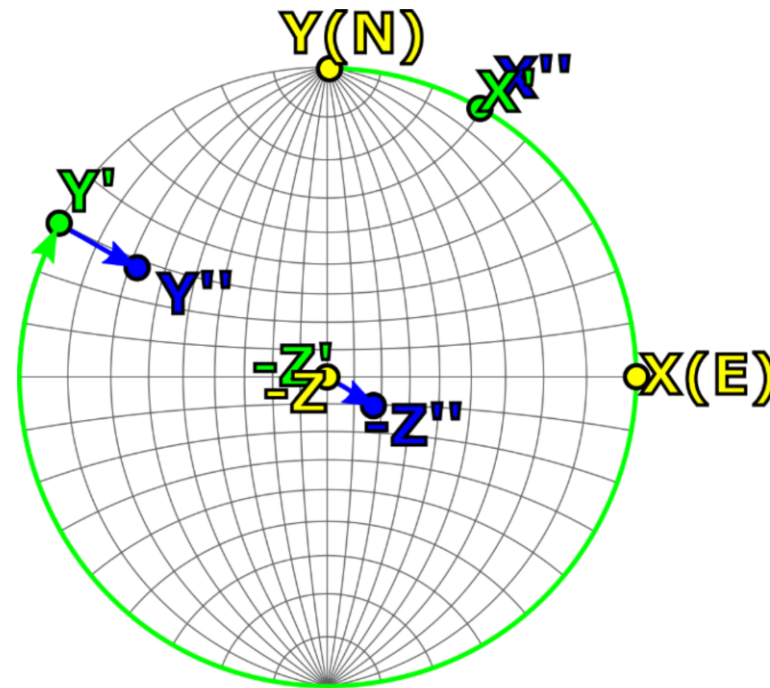
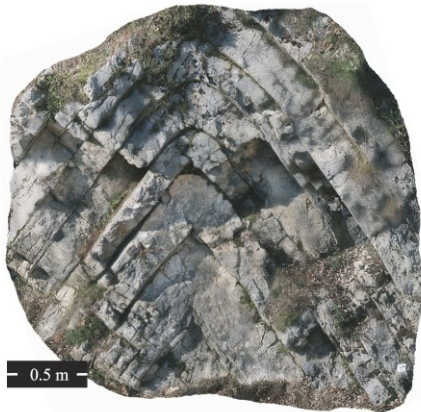
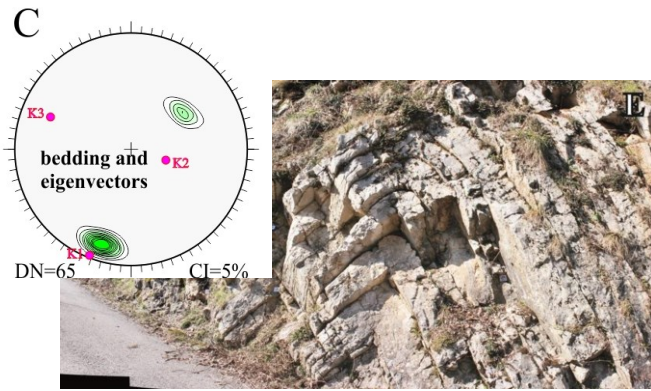


ORTHOMOSAIS OF VOMs



CHANGE OF BASIS

A change of basis consists of converting every assertion expressed in terms of coordinates relative to one basis into an assertion expressed in terms of coordinates relative to the other basis.



$$R_z(\text{azimuth}[\alpha]) = \begin{bmatrix} \cos(\alpha) & -\sin(\alpha) & 0 \\ \sin(\alpha) & \cos(\alpha) & 0 \\ 0 & 0 & 1 \end{bmatrix}$$

to rotate of an angle α around the Z axis, and by:

$$R_x(\text{dip}[\delta]) = \begin{bmatrix} 1 & 0 & 0 \\ 0 & \cos(\delta) & -\sin(\delta) \\ 0 & \sin(\delta) & \cos(\delta) \end{bmatrix}$$

to rotate of an angle δ around the X axis.