

Figure S1: Scheme illustrating the method of the “minimum bounding rectangle” and the parameter used to characterize the morphology on natural and analog bedforms

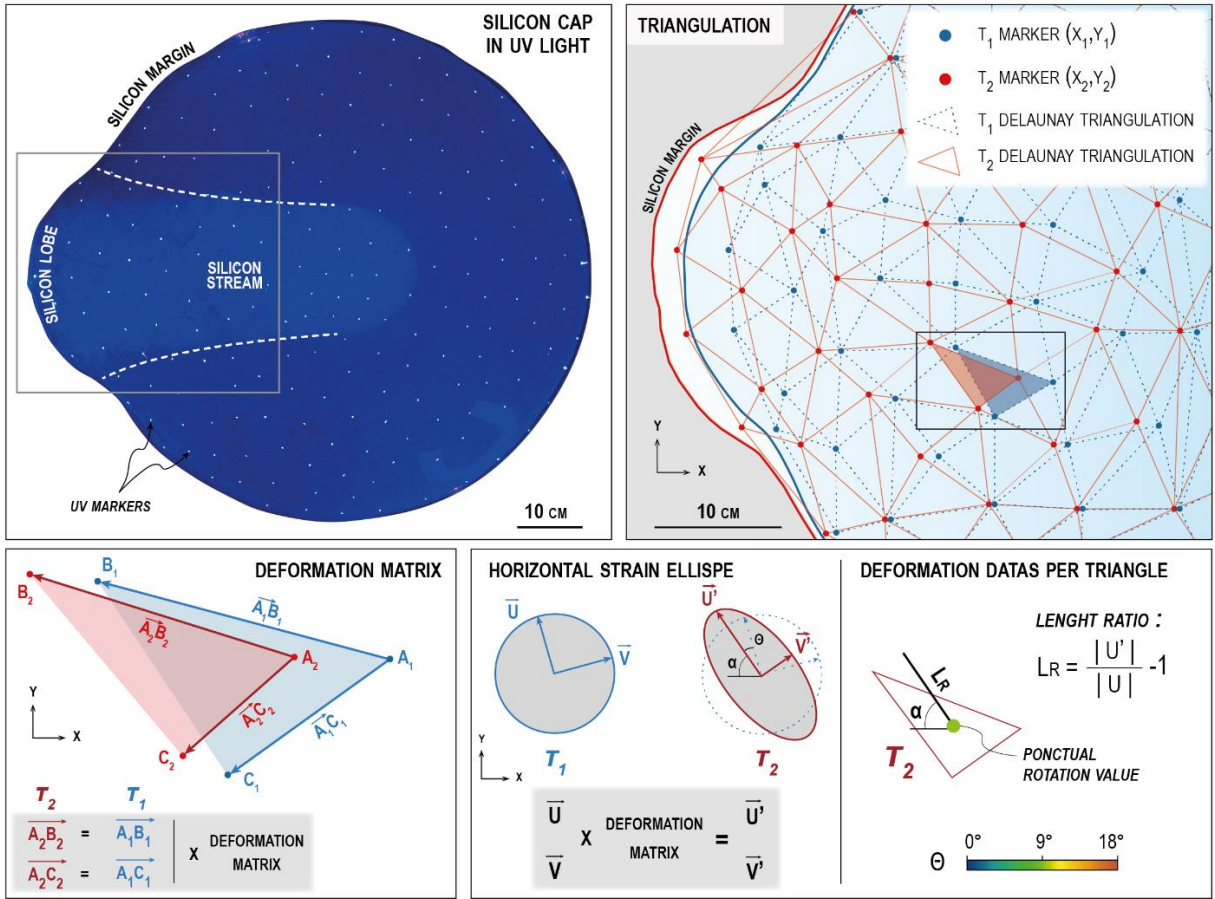
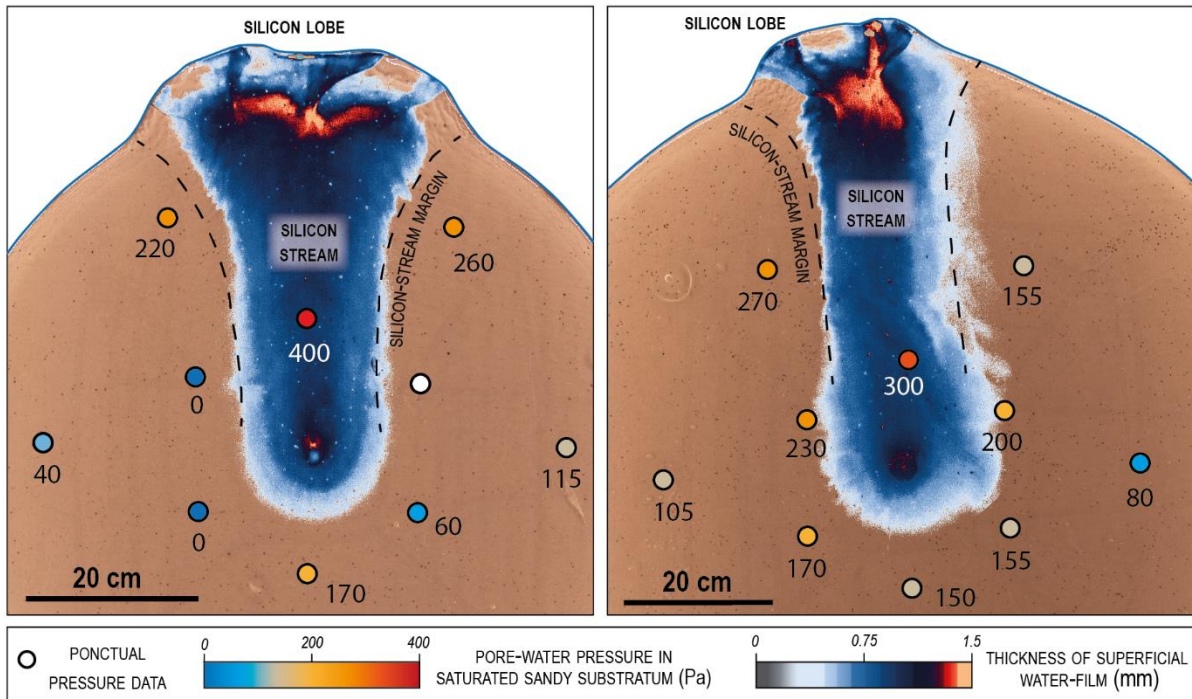


Figure S2: Procedure of triangulation from UV markers used for computation of 2D-horizontal strain ellipse



**Figure S3: Example of the spatial distribution of the pore-water pressure (Pa) within the silicon stream bed during active silicon streaming. Pore-water pressures in the bed below the silicon streams exceeded the maximal weight of the silicon layer (285 Pa), resulting in silicon-bed decoupling.**