

Scours and channels are depressions in bedding plane surface cut by erosional currents. They can be recognized by the cutting of bedding structures in the underlying sediment. Scours are small structures, generally oval to elongate, with a smooth to irregular concave-up shape; they are usually filled with slightly coarser sediment than the sediment in which they occur, and represent short-lived erosion events (Figure 13). Channels are generally larger scale features meters or kilometers in length and width, and were the pathways for sediment and water movement over considerable lengths of time. Like small-scale scours, they are infilled with coarser sediments than those beneath or around them, and frequently have a basal lag deposit of pebbles, gravel or clasts of the underlying rock.

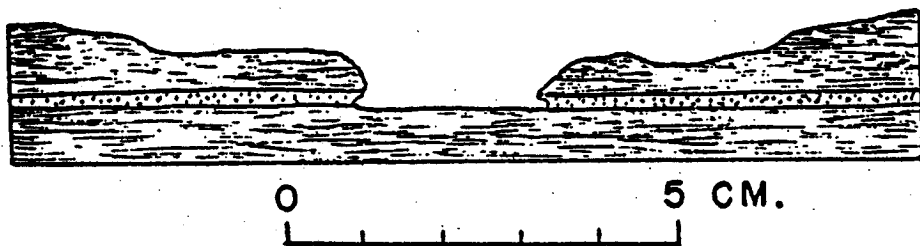


Figure 13. Cross-sectional profile of a small scour structure in mud. From Dzulynski and Sanders (1962).

Rill marks are tiny channel systems left on a bedding plane surface exposed to air, and are the record of water draining off of the surface.

Mud cracks are polygonal systems of cracks developed down into a bed due to dessication and compaction of water-saturated muddy sediment. They are described according to the depth to which they are developed, the arrangement of cracks on the bedding surface, the length of individual cracks, and whether the cracks are straight or curved in plan view.

Other structures found on bedding plane surfaces but not strictly erosional in origin are:

- raindrop imprints
- frost and ice cracks
- craters from bubbles
- casts or imprints of salt crystals
- foam impressions
- minute ridges left from standing water or wave swash