

Texture/Fabric

Texture describes the relationships of a rock's components to one another at the microstructural scale. A rock's texture records its origin and post-depositional (i.e., taphonomic) history. For a sedimentary rock deposited in the presence of a microbial community, these components include grains, mineral crystals, aqueous precipitates, fossils, organic remains, and other rock fragments. Fabric refers to the spatial arrangement, orientation, and geometric patterns of the visual components, such as grains, filaments, laminae, and any cement of a sedimentary rock that display some level of directionality. A rock fabric can be described by the orientation and pattern produced by single or multiple components of a sediment. For example, stromatolites (laminated geobiological structures) can display distinctive fabrics and textures (such as laminae oriented parallel to the surface of a sedimentary deposit). Fabrics and textures may reveal biogenic attributes and visual patterns that can be diagnostic of various types of microbial input.