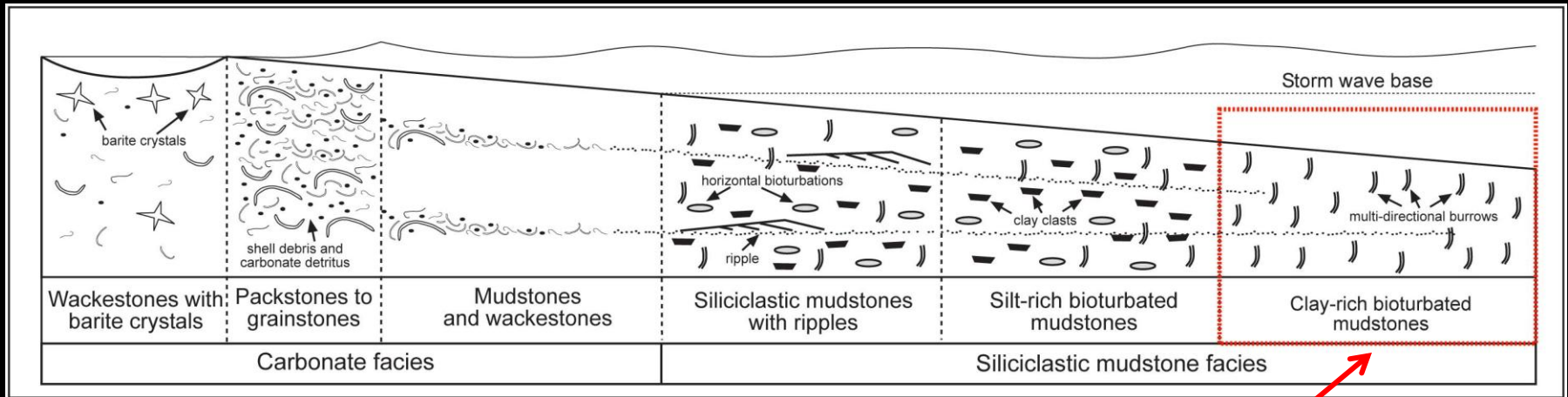
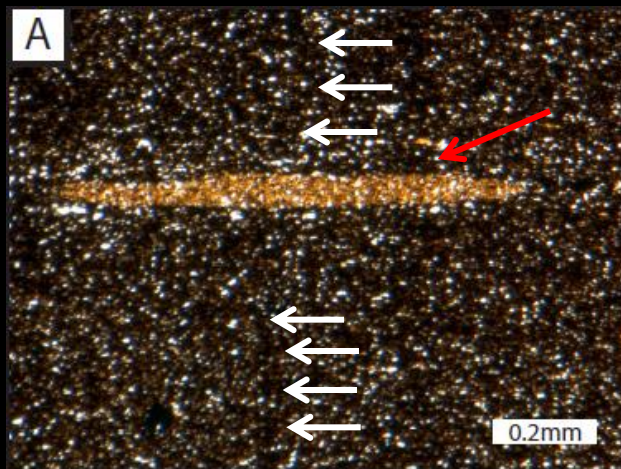


Deposition on the far end - shale facies architecture as an archive for high-frequency cyclicity

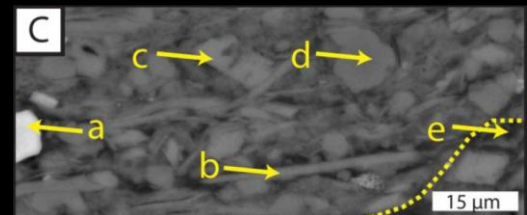
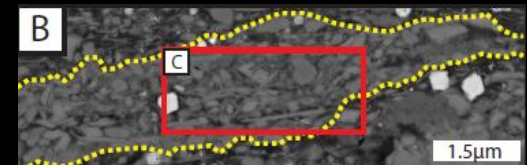
Sven Egenhoff, Department of Geosciences, Colorado State University



Centimeter-scale cycles occur in shale successions **ONLY** in **distalmost** settings of the Alum and Tøyen Formations in Scandinavia. Intense bioturbation is made responsible for the lack of cycle preservation in fine-grained rocks.



(A): Two burrow types characterize the Alum and Tøyen Shales in Scandinavia: horizontal (red arrow) and multi-directional (white arrows)
 (B): SEM image showing lack of organic material in horizontal burrow, outlined by yellow dots.
 (C): SEM image of detail from B showing minerals in burrow - a pyrite, b illite, c K-feldspar, d quartz, e organic matter outside burrow



SEM (Scanning electron microscope) images