

About my Research

I am a geobiologist, who works on benthic microorganisms in marine settings both modern and ancient. My research is focused on the question, how biofilms and microbial mats affect physical sediment dynamics, and which sedimentary structures rise from this microbiotic-physical interaction. However, I am not focusing on stromatolites, but on biogenic structures in sandy deposits. Here, benthic microbiota like cyanobacteria cause microbially induced sedimentary structures. Those structures look completely different to stromatolites, and they also vary in their genesis. In the meantime, we distinguish 17 main types of those structures, and classify them as own category into the Classification of Primary Sedimentary Structures. In my work I combine investigations in modern marine environments with studies conducted in the fossil outcrops. That is I started out to observe benthic microbiota in modern tidal flats, and then used this information to search for fossil biofilms and microbial mats in equivalent ancient environments. Systematically I explored sandstone successions of increasing ages, and now I arrived in the Archean era. I am working together with many terrific people, who have great influence on this kind of work. I regularly lecture at other institutions.

[A very short review on my research](#)

[Welcome to our SEPM field conference Earth history of microbial mats](#)

[Abstract of my seminar](#)

[My short Bio](#)