

Topic: Stromatolites: what they are, how they form, what kind of life is involved in their formation, and oldest and youngest examples.

As cyanobacteria inhabit the stromatolite, they produce a film of mucus over the surface of the stromatolite. This film is an evolutionary defense against separation from each other due to environmental influences.

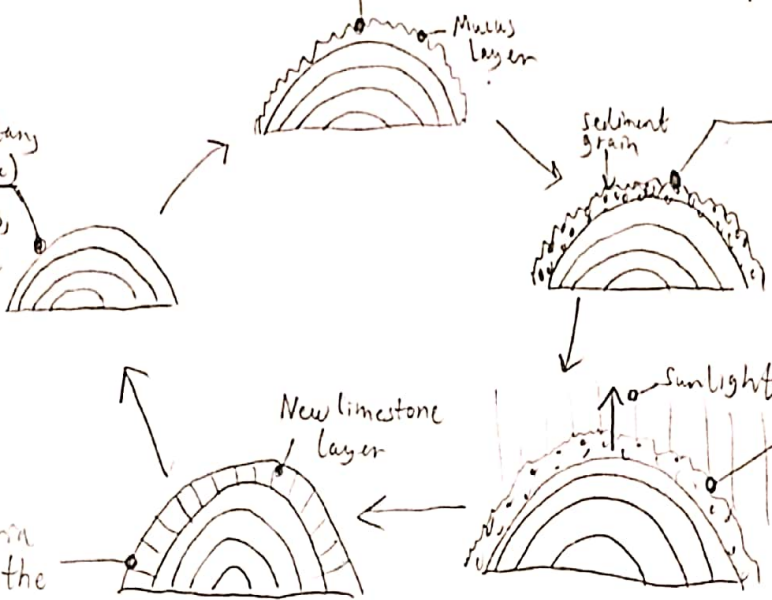
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A mound of sedimentary layers (like limestone) that houses microbes, like photosynthetic cyanobacteria, which produce such layers.

As cyanobacteria grow upwards, the sediments trapped in the mucus film become cemented due to the calcium carbonate in the sediment, forming a new limestone layer.

Over time, debris from surrounding environment can become trapped in film of mucus, giving the cyanobacteria more footing to climb upwards.

Because photosynthesis is necessary for life for cyanobacteria, the collection of microbes moves upwards towards sunlight to facilitate photosynthetic processes.



Ancient Example:



Rough rendering of Precambrian fossilized stromatolites in the Sisyeh Formation at Glacier National Park

Modern Example:



Rough rendering of microbialite (stromatolite/thrombolite) towers at Pavilion Lake, British Columbia, Site of largest known freshwater stromatolites.

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