The Visingsö Group is a group of sedimentary rocks that can be found within the area of lake Vättern in southern Sweden. They are one of few remaining Neoproterozoic ones that we have in Sweden, and to be more precise they belong to the Tonian period. A time that is older than the biodiversification in the Cambrian, and the great glaciations of Snowball earth.

The group is divided into three distinct formations based on the type of rocks that they contain. And what type of rock you end up with is dependant on the environment that forms them.

The lower formation, that mainly consists of sandstones, was deposited in a delta environment. In such an environment there is enough energy in the water to deposit sand-sized grains and to form characteristic cross-bedding structures that can be found here.

In the middle formation we have moved to the edge of the delta. Here the environment is ever changing with alternating deposition of sandstones and mudstones. This is because the delta itself is constantly changing. The waters of the delta are changing paths and forming new channels in other directions. This gives us the pattern of deposition we can see in the middle formation, sandstones deposited in the delta, and when it changes it’s path and shuffles the sand to some other place, the mudstones of the deeper and calmer marine setting are deposited instead.

The upper formation to has an alternating pattern of deposition but this time it’s between a marine setting, and a tidal-influenced one. The marine shales and mudstones alternate with limestone containing biologically created structures called Stromatolites.