

## Lower Cambrian bioherms: pioneer reefs of the Phanerozoic

Noel P. James and Françoise Debrenne

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Synthesis of information presently available on the makeup of Lower Cambrian bioherms indicates a gradual transition in their composition through time. The oldest bioherms (Lower Tommotian of the Siberian Platform) are mounds composed of lime mud and calcareous algae (*Epiphyton* and *Renalcis*) with archaeocyaths most common in the surrounding sediments. This trend continues

throughout most of early Lower Cambrian time. In the middle part of the Lower Cambrian, archaeocyaths become an important part of the bioherm biota. By late Lower Cambrian time, as much as 50% of the limestone in bioherms is composed of archaeocyath skeletons and the structures illustrate the same sedimentological and ecological attributes as skeletal metazoan reefs later in the Phanerozoic.

**Key words:** Archaeocyatha, algae, bioherms, reefs, Lower Cambrian.

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