The Spatial and Temporal Distribution of the Cambrian Maze-Like Reefs in the North China Platform

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ABSTRACT

The maze-like reef is characterized by centimeter- to decimeter-scale branching structures, which was flourished during the Cambrian to early Ordovician on Laurentia and Gondwana. Maze-like reefs were identified across the North China Platform, which can be subdivided into branching maceriate reefs and columnar maceriate reefs. The maceria structures are made of sponges (e.g., keratosans and lithistids) and microbial components including Girvanella, Renalcis, and Tarthinia, whereas the interstitial material consists of lime mud with bioclasts and intraclasts. The temporal distribution of the maze-like reefs gradually becomes younger from the Drumian stage to the Jiangshanian stage from the northwestern part to the southeastern part in the North China Platform. Detailed facies analysis suggests that depositional environments may have played an essential role in the occurrence of the maze-like reef in the North China Platform.

Key words: Maze-like reefs, Sponge, Paleoenvironment, Cambrian, North China Platform