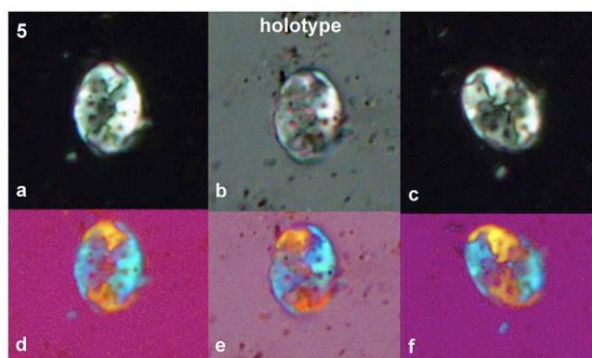


Orastrum schollei Lees, Schueth & Howe in Schueth & Lees (2019)



Pl. 2, fig. 5

Pl. 2, fig. 5. *Orastrum schollei* sp. nov., 7260.15' (2212.89m). Figs 5a, c XPL, 5b PL, 5d, f XPL + GP, 5e PL + GP.

Holococcolith sp. C Howe in Sikora et al., 2004, fig. 17i, j.

Derivation of name: After Drs Peter Scholle and Dana Ulmer-Scholle in recognition of their seminal and ongoing works on carbonate sediments and their diagenesis.

Diagnosis: A species of *Orastrum* with a distinct narrow rim and several (10 in the holotype) small perforations arranged evenly around one larger central perforation. The medium-sized lith is divided into four crystallographically-distinct blocks. The sutures between the blocks are complex, being ragged, kinking as they meet and cross the rim, and outlining four subsquare to subtrapezoid blocks (the shape depending on the angle of rotation of the specimen). The sutures appear differently-oriented at different degrees of rotation of the lith (see Pl.2, fig. 5a versus 5c), forming a 'V' shape around the main ellipse axis at 0° and becoming subaligned with the ellipse axes at 45°. The kinks in the sutures at the rim cause each of the lith's subsquare/subtrapezoid blocks to have a finger-like extension of similarly-oriented crystallites that point in an anticlockwise direction around the rim. Opposing blocks go into extinction together upon rotation of the lith.

Differentiation: *O. schollei* is distinct from most other species of *Orastrum* in having perforations and complex sutures. It is distinct from *O. colligatum* in being larger, and having more than four perforations and distinctly different sutures.

Holotype: Pl. 2, fig. 5a–f.

Holotype dimensions: 6.4 µm long, 4.8 µm wide.

Type locality: Rio Arriba County, San Juan Basin, New Mexico, USA (36°16'27.8"N, 107°28'1"W).

Type level: San Juan 28-6 UT 148M core, 7260.15' (2212.89 m); UC8, Turonian.

Occurrence: San Juan 28-6 UT 148M core, Turonian–Coniacian (UC8–UC10).

Schueth, J.D. & Lees, J.A., 2019. Pioneer nannofossil assemblages from the initial transgression of the Niobrara seaway in the Turonian, San Juan Basin, New Mexico, USA. *Marine Micropaleontology*, **151**.