

# A New Middle Cambrian Trilobite from Bornholm

by

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In May 1956 the writer took part in a geological excursion to the island of Bornholm, arranged for students of the University of Copenhagen. At the famous Middle Cambrian locality Borregaard one of the participants succeeded in finding a new species of the genus *Anomocare* ANGELIN in the Exsulans limestone (zone of *Ptychagnostus (Triplagnostus) gibbus* (LINNARSSON)). It deserves notice that this new species, which will be described below, is the oldest known representative of the genus *Anomocare*. The specimen is preserved in the Geological Museum of the University of Copenhagen.

## *Anomocare danicum* n. sp.

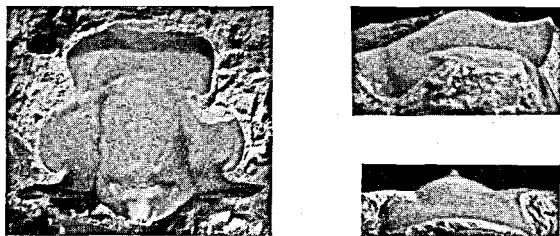


Fig. 1. *Anomocare danicum* n. sp., dorsal, lateral, and frontal view of the cranium (X 2).

*Material:* A well-preserved cranium.

*Description:* Cranidium moderately convex. Glabella a little more than half as long as the cranidium, occupying about one-third the width, fairly rounded in front, moderately convex, tending to become keeled, with three pairs of faintly indicated, discontinuous glabellar furrows. Occipital ring fairly wide, with prominent occipital spine. Occipital furrow straight, shallow, effaced at sides. Pre-glabellar and axial furrows narrow and shallow. Pre-glabellar field and anterior border of equal length at axial line. Border well-defined, flat, upturned. Anterior border furrow shallow, practically straight. Anterior region of fixed cheeks moderately wide, gently sloping antero-laterally; palpebral region about as wide as

anterior part of glabella, horizontal or nearly so; posterior region extremely short, a little narrower than basal part of glabella. Palpebral lobes very long, crescent-shaped, with anterior and posterior ends situated opposite to anterior pair of glabellar furrows and occipital furrow respectively; palpebral furrows shallow. Ocular ridges oblique, reaching axial furrows slightly in front of anterior pair of glabellar furrows. Anterior branches of facial suture moderately diverging from eyes to anterior border; posterior branches moderately diverging just behind eyes, then strongly diverging throughout. External surface smooth except for very faintly marked, inosculating lines on pre-glabellar field and anterior region of fixed cheeks, and small, isolated areas on glabella and occipital ring with delicate, sub-parallel wrinkles visible under a low-power lens.

*Dimensions:*

|  |         |
|--|---------|
| Length of cranidium (exclusive of occipital spine).....        | 13.0 mm |
| Width - - - across palpebral lobes.....                        | 13.0 -  |
| - - - at base.....   | 17.7 -  |
| Length - glabella + occipital ring.....                        | 9.8 -   |
| Width - - - at the rear.....                                   | 5.8 -   |
| Distance between facial sutures at anterior border furrow..... | 9.6 -   |

*Horizon and locality:* Exsulans limestone (zone of *Ptychagnostus (Triplagnostus) gibbus* (LINNARSSON)), Borregaard.

*Remarks:* *Anomocare danicum* is very similar to the type species of the genus *Anomocare (A. laeve (ANGELIN))* from which it differs in having straight anterior border furrow, almost effaced glabellar furrows, and non-granulate external surface; otherwise the species are practically identical, and, accordingly, there can be no doubt that they are very closely related. Considering the fact that *A. danicum* originates from a much older horizon than *A. laeve*, the latter occurring in the Andrarum limestone (zone of *Solenopleura brachymetopa (ANGELIN))*, one might expect to find primitive features in the former, for instance a more distinctly marked segmentation of glabella, but, on the contrary, *A. danicum* has almost effaced glabellar furrows, whereas *A. laeve* has very strongly impressed ones; accordingly, *A. danicum* cannot be regarded as a direct ancestor of *A. laeve*, but must represent a short-lived, progressive offshoot from the conservative line leading to the latter.

#### DANSK RESUMÉ

En ny Art af Slægten *Anomocare* er fundet i Exsulanskalken ved Borregaard. Arten, som har faaet Navnet *Anomocare danicum*, og som er den ældste kendte Repræsentant for Slægten, afviger fra den i Andrarumskalken forekommende Type-Art, *A. laeve (ANGELIN)* ved sin utydelig leddelte Glabella; den er paa dette Punkt mere specialiseret end Type-Arten, og kan derfor ikke tilhøre samme Udviklingslinje.

#### RELEVANT LITERATURE

WESTERGÅRD, A. H., 1950: Non-Agnostidean Trilobites of the Middle Cambrian of Sweden II: Sveriges Geologiska Undersökning, ser. C, no. 511.

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