Description of Two Complete Specimens of Anomocarella*

By

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Two complete trilobites were found in the specimens of green marl which Professor G. B. Matthew of the Catholic University at Peking procured at Mengyin ( peers) in Shantung. Through the kindness of Professor Matthew the author was given the privilege of studying them. Unfortunately their exact locality and horizon are unknown. At the first glance they look like Blainials contained in the nodules of the Conasauga formation in the Appalachians, but in truth there is nothing similar in the Conasauga fauna. Furthermore they are evidently different from Blainiia in their broader cephalon and from Asaphicicus in their less conical glacella. On the other hand the larger one of the trilobites is identical with the types of Anomocarella temenus Walcott. Of this species, no complete specimen has yet been found and the types are represented by detached cephalon and pygidia. The other one unquestionably belongs to the same genus and probably to the same species.

Anomocarella temenus (Walcott).


Description:—Dorsal shield elongately ovate; ratio of its length, breadth and convexity being about 4.5:3:1; proportion of the lengths of cephalon exclusive of spines, of thorax and pygidium about 3.5:6:3.

* Transactions of the Palaeontological Society of Japan, No. 169.
1) Titles of Papers Nos. 8-12 in Miscellaneous Notes on the Cambro-Ordovician Geology and Palaeontology are listed below.


Cephalon strongly convex, surrounded by a relatively thick border which is slightly convex and gently inclined toward the periphery; glabella convex, elevated above the cheeks, tapering slowly forward and broadly rounded in front; lateral furrows indiscernible; fixed cheek measured across the eyes half as broad as the glabella; eyes large, opposite the middle of the glabella; eye-ridge distinct and running obliquely across the fixed cheek; frontal limb a little shorter than the frontal border. Facial suture describes a semicircle in front of the eye and, running intramarginally for some distance, cuts the frontal margin in front of the eyes; posterior to the eye it is gently inclined and joins the posterior margin at a short distance from the genital spine.

Thorax composed of 11 segments; axial lobe tapering gradually backward; axial ring convex; pleura nearly horizontal in the inner one-third, whence it is inclined steeply; pleural furrow running a little anterior to the middle of the pleura and deepened in the middle; pleural end sharply pointed.

Pygidium semi-circular; axis gently convex, elevated above the pleural lobes and divided into four rings and a terminal lobe; furrows on the pleural lobes are shallow except the first one; the first pleural rib sharply edged at the top and runs into the border, but others are flat-topped; pleural furrow narrower than the rib and fades out on the inner margin of the border; the pleural lobe abruptly slopes down in the external half, whence it merges into a concave border.

Surface smooth.

Observation and Measurement:—Although the glabella is partly broken, this is one of the best preserved specimens of the genus.

Length of the dorsal shield ........................................... +74.8 mm.
Breadth of the cephalon measured across the roots of the genal angles .......................... 45.5 mm.
Convexity of the cephalon ............................................ 16 mm.
Breadth of the cranidium measured between the eyes ............................................. 26 mm.
Length of the thorax .................................................... ca37 mm.
Breadth of the eleventh thoracic segment ............................................ 35.5 mm.
Breadth of the first axial ring of the thorax ............................................ 13.5 mm.
Breadth of the eleventh axial ring of the thorax ............................................ 9.5 mm.
Length of the pygidium .................................................. +18 mm.
Breadth of the pygidium .................................................. 34.5 mm.
Length of the axial lobe of the pygidium ............................................ 15 mm.
Breadth of the first axial ring of the pygidium ............................................ 9 mm.

Comparison:—The convexity of the cranidium, free cheek or pygidium varies among Walcott's type specimens from Yenchuang in the Province of Shantung. It is quite evident that the convexity was lessened secondarily with the result that the dismembered parts look broader. Endo and Resser gave a new name, Psilaspis manchuriensis, to the less deformed ones among Walcott's specimens of A. temenus. In other words Psilaspis which is based upon P. manchuriensis, that is, A. temenus is, as discussed in 1935, a synonym of Anomocarella.

Anomocarella cfr. temenus (Walcott).

This is smaller, measuring about 48 mm. in length, and less convex than the preceding; its thorax consists of ten, instead of eleven, segments. The axial lobe appears relatively narrower because the pleural lobe is more explanate. The test
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Figs. 1a-b. *Anomocarella temenus* (WALCOTT). Natural size.

Figs. 2a-b. *Anomocarella cfr. temenus* (WALCOTT). ×1\(\frac{1}{2}\).
of the carapace is mostly eroded and the furrows are strongly impressed. Because the doublure is narrower than the border, the frontal limb looks longer in this than in the preceding. But none of these differences warrants specific distinction. On the other hand it is quite probable that the difference in the number of thoracic segments which is one less in this smaller specimen than in the larger one reveals two individuals indifferent stages of growth.

Anomocarella の完全な 2 標本の記載 (摘要)

小 林 貞 一

山東産産 (?) 産 Anomocarella temenus (WALCOTT) 及び A. cfr. temenus (WALCOTT) の完全な標本を検する事を得たので Anomocarella 及び共の近似種の比較研究資料として之を記載掲示する。

體節は第 1 の標本に於ては 11, 第 2 の標本に於ては 10 であるが此の相異は同種内の生長期の相異に依るものであるかも知れない。解體せる頭・尾・體節を合して本種に歸属せしめた WALCOTT 以来の古生物学者之置は本標本に依つて誤のたき事が實証された。

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