

three latter exhibit similar series of metamorphosis and so are naturally grouped in the same family. On the other hand the changes in the young of *Paradoxides* follow an independent line of development, showing that this genus belongs to a different family. "We see then that in the trilobites of the fauna called Primordial there were already differences in the mode of development; and these differences in the forms of the same group living at the same epoch, correspond certainly to a grade of evolution which is not the same; this compels us to admit that before the time when this trilobite fauna lived, there must have been another from which it proceeded."

Another argument used by Dr. Bergeron is that the size of the front lobe of the glabella in embryonic forms of the early trilobites foreshadowed the genera *Paradoxides* and *Olenellus*, which are similarly characterized in the adult stage. However, he thinks that more weight is to be given to the small size of the pygidium in these and other primordial genera as indicating the primitive aspect of the Cambrian trilobites, for in the embryonic trilobite the pygidium is small compared with the cephalic shield.

The development of the genus *Agnostus* also is taken as showing the line of change through which the genera of trilobites were inclined to pass. Tullberg had shown this for the *Agnosti* of Scandinavia.

The author shows that the earlier forms of *Paradoxides* were small and the gigantic form *P. Regina* was one of the later. These large species perished suddenly without leaving any successors. The same rule holds for *Asaphus* and *Ilanus* and large species of other genera.

"The preceding study of the characters peculiar to the trilobites of the Cambrian has led us to the conclusion that these present sure indications of an evolution anterior to the epoch in which they lived. This leads us to think that there must have lived prior to the fauna called primordial, one which may have contained the ancestral types of the most ancient one that we actually know."

Dr. Bergeron supports this view of the source of the most