

complex organ the eye, selected from each extreme, and from a midway place in the progressive series of animal creations. We find in Trilobites of the Transition rocks, which were among the most ancient forms of animal life, the same modifications of this organ which are at the present time adapted to similar functions in the living Serolis. The same kind of instrument was also employed in those middle periods of geological chronology when the Secondary strata were deposited at the bottom of a warm sea, inhabited by Limuli, in the regions of Europe which now form the elevated plains of central Germany.

The results arising from these facts are not confined to animal Physiology; they give information also regarding the condition of the ancient Sea and ancient Atmosphere, and the relations of both these media to Light, at that remote period when the earliest marine animals were furnished with instruments of vision, in which the minute optical adaptations were the same that impart the perception of light to Crustaceans now living at the bottom of the sea.

With respect to the waters wherein the Trilobites maintained their existence throughout the entire period of the Transition formation, we conclude that they could not have been that imaginary turbid and compound Chaotic fluid, from the precipitates of which some Geologists