

size, and position of the contained viscera ; and thus the fossil carapaces may afford important data regarding the structure and economy of the extinct species. M. Desmarest* was the first naturalist who successfully applied this phrenological method to the investigation of the fossil crustaceans ; and, as these animals annually shed their solid case, and acquire a new one, which is moulded on the soft parts, the form and relative situation of the internal organs must necessarily be faithfully represented by the external integument, even when it has acquired its greatest degree of consolidation ; thus the regions of the stomach, heart, branchiæ or respiratory organs, &c. may be distinctly traced on the external shell.†

The fossil remains of Crustaceans consist of the calcareous covering or carapace, with the articulated extremities, and, rarely, the jaws, and antennæ. For the most part the specimens are mutilated, and present only portions of the carapace, and abdominal segments, and detached claws ; but in strata composed of very fine detritus, such as the cream-coloured limestones of Solenhofen, and Pappenheim, examples often occur in the most beautiful state of preser-

* Histoire Naturelle des Crustacés Fossiles ; par MM. Alex. Brongniart et Desmarest. 1 tom. 4to. Paris, 1822.

† The student who would enter upon this much-neglected department of Palæontology, should consult the work referred to, p. 73, *et seq.*