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ARTICLE XI.—*On the Microscopic Structure of some Canadian Limestones.* By J. W. DAWSON, LL.D., F.G.S., &c.

[Read before the Natural History Society of Montreal.]

Geology has shewn that over a great part of the earth's surface we can say, almost without hyperbole, "The dust we tread upon was once alive." Great and very extensively distributed beds of rock are of organic origin, made up of the remains of the hard parts of animals, and these often of very minute dimensions. In the bed of the sea, more especially in the coral regions of the Pacific, the Indian ocean and the equatorial Atlantic, such deposits are now manifestly in progress on a large scale; and in the archipelagos of the Pacific, the Bermudas, and the peninsula of Florida, we have examples of these modern formations elevated into land. Similar phenomena exist on a still greater scale in the Tertiary rocks; as for instance in the Nummulitic limestones, extending from the west of Europe almost continuously into India, built up into mountain masses in the Alps, Pyrenees, Carpathians and Himalayas, and furnishing the materials of the Egyptian Pyramids, and of thousands of humbler structures. In the secondary period, the chalk and many of the oolitic limestones present similar phenomena. Similar organic rocks occur in all the members of the palæozoic series down to the lowest Silurian; and in these earliest periods of the earth's geological history, when organic