562 TRANSACTIONS OF THE CANADIAN INSTITUTE. [VOL. VII.

to the elements sodium, potassium, calcium and magnesium to the composition of sea water which obtained when all forms were unicellular, just as the blood plasma owes its relations to the same four elements to the composition of sea water which prevailed when circulatory fluids were established. In other words the relation of protoplasm to salts is due to the action for ages of sea water, for incalculably long periods of time, on the living matter of unicellular organisms.