

character. These exceptions are,—first, a deposit composed of fine particles of sand and broken fragments of shells such as would arise from detritus brought along by a deep sea-current. The rock is stratified in a manner which fully bears out such a view. I believe that this formation covered nearly, if not quite, the whole of the limestone, but has afterwards been washed away by denudation, to which its friable texture would render it extremely liable. There is always more of it near the coast, and there in some places it is 200 feet thick. Elsewhere it is only in patches lying on elevated spots of ground, and apparently much water-worn.

A ridge of coarse limestone follows the line of coast; and in this, as well as in the limestone some few miles further inland, fossils abound; but they are all of species at present inhabiting the coast. This is the result of upheaval which appears from observation to continue to this day. It is worthy of notice that volcanic emanations occurred during the period of upheaval; and it would appear probable, from shocks of earthquakes that are occasionally felt, that the cause of them is yet in existence.

Note on the FOSSIL POLYZOA collected by the Rev. J. E. Woods near MOUNT GAMBIER, SOUTH AUSTRALIA. By GEORGE BUSK, Esq., F.R.S., F.G.S., &c.

The *Polyzoa* included in this collection belong to fifteen or sixteen genera, of which four are probably new; and the number of species is about thirty-nine or forty, of which at least thirty-six seem to be undescribed. Among them are several very peculiar and characteristic forms, especially in the genus *Cellepora*. Taken as a whole, these fossil forms exhibit such generic and specific types as to render it probable that the formation in which they are found corresponds, in point of relation to the existing state of things, with the Lower Crag of England, although the collection contains but one or two species which can be referred, and those even doubtfully, to any belonging to the Crag. It is remarkable, however, that it presents a second species of *Melicerita*, which genus is peculiar to that deposit. Of the characteristic *Fascicularie* and other *Theonidae* of the Crag no trace exists in the present collection. The most characteristic form is a large and massive *Cellepora*, for which I propose the name *Cellepora Gambierensis*.

List of Genera and Species.

I. P. CHEILOSTOMATA.

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| 1. <i>Salicornaria</i> , <i>Cuvier</i> . | 3. <i>Onchopora</i> , <i>Busk</i> . |
| 1. <i>S. sinuosa</i> , <i>Hassall</i> . | 1. <i>O. pustulosa</i> , n. sp. |
| 2. <i>S. Parkeri</i> , n. sp. | 4. <i>Membranipora</i> , <i>Blainville</i> . |
| 2. <i>Canda</i> , <i>Lamx</i> . | 1. <i>M. stenostoma</i> , <i>Busk</i> . ? |
| 1. <i>C. angulata</i> , n. sp. | 2. <i>M. bidens</i> , <i>Hag</i> . |

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| 3. <i>M. appressa</i> , n. sp. | 3. <i>E. arcuata</i> , n. sp. |
| 4. <i>M. Cyclops</i> , <i>Busk.</i> | 4. <i>E. oculata</i> , n. sp. |
| 5. <i>Lepralia</i> , <i>Johnston.</i> | 5. <i>E. bimarginata</i> , n. sp. |
| 1. <i>L. —</i> , sp. ? | 6. <i>E. hastigera</i> , n. sp. |
| 2. <i>L. submarginata</i> , n. sp. | 7. <i>E. inornata</i> , n. sp. |
| 3. <i>L. subearinata</i> , n. sp. | 8. <i>E. —</i> , sp. ? |
| 4. <i>L. doliiformis</i> , n. sp. | 8. <i>Retepora</i> , <i>Imperato.</i> |
| 6. <i>Cellepora</i> , <i>O. Fabr.</i> | 1. <i>R. —</i> , sp. ? |
| 1. <i>C. Gambierensis</i> , n. sp. | 9. <i>Psilechara</i> , nov. gen. |
| 2. <i>C. hemisphaerica</i> , n. sp. | 1. <i>P. pustulosa</i> , n. sp. |
| 3. <i>C. nummularia</i> , n. sp. | 2. <i>P. subsulcata</i> , n. sp. |
| 4. <i>C. costata</i> , n. sp. | 10. <i>Cœleschara</i> , nov. gen. |
| 5. <i>C. tubulosa</i> , n. sp. | 1. <i>C. australis</i> , n. sp. |
| 6. <i>C. spongiosa</i> , n. sp. ? | 11. <i>Melicerita</i> , <i>M.-Edwards.</i> |
| 7. <i>Eschara</i> , <i>Linn.</i> | 1. <i>M. angustiloba</i> , n. sp. |
| 1. <i>E. simplex</i> , n. sp. | 12. <i>Scutularia</i> , nov. gen. |
| 2. <i>E. papillata</i> , n. sp. | 1. <i>S. prima</i> , n. sp. |

II. P. CYCLOSTOMATA.

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| 1. <i>Pustulopora</i> , <i>Blainville.</i> | 3. <i>Hornera</i> , <i>Lamx.</i> |
| 1. <i>P. distans</i> , n. sp. | 1. <i>H. Gambierensis</i> , n. sp. ? |
| 2. <i>Idmonca</i> , <i>Lamx.</i> | 2. <i>H. rugulosa</i> , n. sp. ? |
| 1. <i>I. Milneana</i> , <i>D'Orbigny.</i> | |
| ? 2. <i>I. ligulata</i> , n. sp. | |

Note on the FORAMINIFERA from the BRYOZOAN LIMESTONE near MOUNT GAMBIER, SOUTH AUSTRALIA. By W. K. PARKER, Esq., and T. RUPERT JONES, F.G.S.

A small portion of the deposit has yielded several *Foraminifera*, namely,—

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| <i>Polymorphina lactea</i> , <i>J. & W.</i> Rather large. | } Not rare. |
| <i>Textularia pygmæa</i> , <i>D'Orb.</i> Small. | |
| — <i>agglutinans</i> , <i>D'Orb.</i> Small. | |
| <i>Globigerina bulloides</i> , <i>D'Orb.</i> Small. Common. | |
| <i>Cassidulina oblonga</i> , <i>Reuss.</i> Small. Rather common. | |
| <i>Rosalina Berthelotiana</i> , <i>D'Orb.</i> (a variety of <i>Rotulia Turbo</i> , <i>D'Orb.</i>) Small. Rather common. | |
| <i>Rotulia Ungeriana</i> , <i>D'Orb.</i> Rather large. Abundant. | } Varieties of <i>Rotulia</i> (<i>Planorbulina</i>) <i>farcta</i> , F. & M. |
| — <i>Haidingerii</i> , <i>D'Orb.</i> Small. Not uncommon. | |
| — <i>reticulata</i> , <i>Czjck.</i> Small. Not rare. | |
| — (<i>Anomalina</i>) <i>Rotula</i> , <i>D'Orb.</i> Small. Rare. | |

The above-named Rhizopods exist at the present day, and for the most part live in rather deep water, at from 200 to 300 fathoms. It would hence appear that the fragmentary *Bryozoa* forming the mass of the deposit were washed down from a higher zone of sea-bottom and mingled with the *Foraminifera* inhabiting deep water.