

## PLATE XIV.

This plate represents the general appearance of the calcareous deposits at different depths and distances from the reefs at the Fiji and Friendly Islands in the South Pacific.

Fig. 2. Section of the mud from 18 fathoms inside the reefs at Tongatabu (magnified 15 diameters), consisting principally of fragments of Molluscs, calcareous Alga, Polyzoa, and large bottom-living Foraminifera.

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| <ol style="list-style-type: none"> <li>1. Fragment of calcareous Alga.</li> <li>2. Part section of <i>Orbitolites</i> sp. (?).</li> <li>3. Transv. section of <i>Operculina complanata</i> (young).</li> <li>4. Fragment of test of Echinoderm (?).</li> <li>5. Longitudinal section of <i>Alveolina boscii</i>.</li> <li>6. Transverse " " "</li> <li>7. Calcareous Alga.</li> <li>8. Fragment of calcareous Alga.</li> <li>9. Alcyonarian spicule.</li> <li>10. Longitudinal section of <i>Cymbalopora pocyi</i>.</li> <li>11. " " <i>Textularia trochus</i>.</li> <li>12. Fragment of calcareous Alga.</li> <li>13. Longitudinal section of <i>Nonionina scapha</i>.</li> <li>14. Part section of <i>Amphistegina cumingii</i>.</li> <li>15. Transverse section of <i>Truncatulina</i> sp. (?).</li> <li>16. Longitudinal section of <i>Cyclotypeus</i> sp. (?).</li> </ol> | <ol style="list-style-type: none"> <li>17. Longitudinal section of <i>Spiroloculina crenata</i>.</li> <li>18. Fragment of test of Echinoderm.</li> <li>19. Fragment of calcareous Alga, with <i>Polytrema miniacum</i> attached.</li> <li>20. Section of <i>Orbitolites</i>.</li> <li>21. Longitudinal section of Gasteropod shell.</li> <li>22. Fragment of calcareous Alga.</li> <li>23. <i>Globigerina bulloides</i>.</li> <li>24. Longitudinal section of <i>Textularia conica</i>.</li> <li>25. Fragment of calcareous Alga.</li> <li>26. Longitudinal section of <i>Clavulina communis</i>.</li> <li>27. Section of <i>Orbitolites complanata</i>, showing primordial chamber.</li> <li>28. Fragment of Polyzoon.</li> <li>29. Transverse section of <i>Orbitolites complanata</i>, var. <i>laciniata</i>.</li> </ol> |
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Fig. 1. Section representing the appearance of the mud in 240 fathoms, about three miles from the reefs off Tongatabu (magnified 50 diameters); the particles are of the same nature as in fig. 2, but of smaller size, and there is a considerable admixture of pelagic species.

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| <ol style="list-style-type: none"> <li>1. Fragment of <i>Orbulina universa</i>.</li> <li>2. Longitudinal section of Gasteropod shell.</li> <li>3. Section of <i>Globigerina rubra</i>.</li> <li>4. Heteropod shell.</li> <li>5. Section of <i>Orbitolites complanata</i>, showing primordial chamber.</li> <li>6. Part section of <i>Polystomella</i> sp. (?).</li> <li>7. " " <i>Polytrema miniacum</i>.</li> <li>8. Calcareous Alga.</li> <li>9. Fragment of calcareous Alga.</li> <li>10. Longitudinal section of <i>Bolivina beyrichi</i>.</li> <li>11. Transverse section of Echinoderm spine.</li> <li>12. Fragment of calcareous Alga (?).</li> <li>13. Part section of <i>Heterostegina</i> sp. (?).</li> <li>14. Transverse section of <i>Nupmunites</i> sp. (?).</li> <li>15. Longitudinal section of <i>Orbitolites complanata</i>.</li> <li>16. <i>Truncatulina</i> sp. (?).</li> <li>17. Fragment of Mollusc shell.</li> <li>18. Part section of <i>Calcarina spengleri</i>.</li> <li>19. Fragment of test of Echinoderm.</li> <li>20. Transverse section of <i>Spiroloculina crenata</i>.</li> </ol> | <ol style="list-style-type: none"> <li>21. Section of <i>Globigerina rubra</i>.</li> <li>22. Fragment of calcareous Alga.</li> <li>23. Fragment of pumice.</li> <li>24. Part section of <i>Textularia trochus</i>.</li> <li>25. Transverse section of <i>Spiroloculina</i> sp. (?).</li> <li>26. Fragment of Polyzoon.</li> <li>27. Part section of <i>Orbitolites</i> sp. (?).</li> <li>28. " " <i>Amphistegina cumingii</i>.</li> <li>29. Fragment of calcareous Alga.</li> <li>30. Transverse section of <i>Rotalia soldanii</i>.</li> <li>31. Section of <i>Globigerina rubra</i>.</li> <li>32. Calcareous Alga.</li> <li>33. Fragment of calcareous Alga.</li> <li>34. Longitudinal section of Echinoderm spine.</li> <li>35. Transverse section of <i>Rotalia</i> sp. (?).</li> <li>36. Longitudinal section of <i>Bulimina</i> sp. (?).</li> <li>37. " " <i>Miliolina subrotunda</i>.</li> <li>38. Part section of <i>Carpenteria monticularis</i>.</li> <li>39. Fragment of Mollusc shell, with <i>Carpenteria</i> attached.</li> <li>40. Transverse section of <i>Tritaxia</i> sp. (?).</li> </ol> |
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Fig. 3. Sections representing the appearance of the deposit in 610 fathoms, about 3½ miles from the reefs at Kandavu, Fijis (fig. 3a magnified 50 diameters, fig. 3b 200 diameters), where there is a large admixture of pelagic shells among the minute calcareous fragments derived from the reefs and shallower waters.

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| <ol style="list-style-type: none"> <li>1. Part section of <i>Rotalia soldanii</i>.</li> <li>2. Section of <i>Globigerina bulloides</i>.</li> <li>3. Radiolarian.</li> <li>4. " "</li> <li>5. Section of Heteropod shell.</li> <li>6. Longitudinal section of <i>Bulimina pygmaea</i>.</li> <li>7. <i>Globigerina rubra</i>.</li> <li>8. Long. section of <i>Clavulina communis</i> (young).</li> <li>9. <i>Globigerina dubia</i>.</li> <li>10. Fragment of calcareous Alga.</li> <li>11. " " Sponge spicule.</li> <li>12. " " <i>Globigerina</i> shell.</li> <li>13. Portion of test of <i>Rhabdammina</i> (?).</li> <li>14. Fragment of shell of <i>Orbulina universa</i>.</li> <li>15. Section of <i>Spiroloculina crenata</i>.</li> <li>16. <i>Globigerina sacculifera</i>.</li> <li>17. Transverse section of <i>Truncatulina</i> sp. (?).</li> <li>18. Fragment of Mollusc shell.</li> </ol> | <ol style="list-style-type: none"> <li>19. Fragment of Pteropod shell.</li> <li>20. " "</li> <li>21. Longitudinal section of <i>Miliolina</i> sp. (?).</li> <li>22. Section of <i>Globigerina rubra</i>.</li> <li>23. " " <i>Globigerina bulloides</i>.</li> <li>24. Fragment of Mollusc shell.</li> <li>25. Part section of Gasteropod shell.</li> <li>26. Fragment of <i>Orbulina</i> shell.</li> <li>27. Calcareous Alga.</li> <li>28. Fragment of Sponge spicule.</li> <li>29. " " test of Echinoderm.</li> <li>30. Sponge spicules.</li> <li>31. " "</li> <li>32. " "</li> <li>33. " "</li> <li>34. " "</li> <li>35. Fragment of shell of <i>Globigerina rubra</i>.</li> <li>36. <i>Globigerina bulloides</i> (young).</li> </ol> |
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Fig. 4. Sections representing the appearance of the deposit, about 30 miles west of Ngaloa, Fijis, at a depth of 1350 fathoms (fig. 4a magnified 50 diameters, fig. 4b 200 diameters), where, it will be seen, the deposit is a *Globigerina* Ooze, principally made up of pelagic Foraminifera shells.

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| <ol style="list-style-type: none"> <li>1. Part section of <i>Orbulina universa</i>.</li> <li>2. <i>Truncatulina</i> sp. (?).</li> <li>3. Fragment of test of Echinoderm.</li> <li>4. Part section of <i>Pulvinulina crassa</i>.</li> <li>5. Section of <i>Globigerina conglobata</i>.</li> <li>6. Radiolarian.</li> <li>7. Section of <i>Globigerina bulloides</i>.</li> <li>8. " " <i>Globigerina conglobata</i>.</li> <li>9. Part of shell of <i>Orbulina universa</i>.</li> <li>10. Section of <i>Globigerina conglobata</i>.</li> <li>11. <i>Globigerina rubra</i>.</li> </ol> | <ol style="list-style-type: none"> <li>12. Part of shell of <i>Pulvinulina menardii</i>.</li> <li>13. <i>Globigerina rubra</i>.</li> <li>14. Fragment of test of Echinoderm.</li> <li>15. Part section of <i>Globigerina</i> sp. (?).</li> <li>16. Radiolarian.</li> <li>17. <i>Globigerina rubra</i> (young).</li> <li>18. Fragment of section of <i>Globigerina conglobata</i>.</li> <li>19. <i>Globigerina bulloides</i> (young).</li> <li>20. <i>Globigerina conglobata</i>, showing spines remaining on an inner cell.</li> </ol> |
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