

EXPLANATION OF THE PLATES.

PLATES XVIII. XIX. XX. XXI & XXII.

Illustrate Mr. De la Beche's paper on the Geology of Jamaica.

PLATE XVIII.

A map of part of Jamaica.

PLATE XIX.

Fig. 1. Section of the strata at St. George's Gap.

Fig. 2. Section from the sea near Kingston to Forster's Cove, St. Mary's.

Fig. 3. Section from Old Harbour to Luidas Vale.

Fig. 4. Section from the sea to Catherine's Peak.

PLATE XX.

View of a natural bridge near Mount Olive, St. Thomas-in-the-Vale.

PLATE XXI.

Represents a cast of part of a gigantic cerithium, from the yellowish white limestone.

PLATE XXII.

Panoramic view from Strawberry Hill, one of the St. Andrew's Mountains.

PLATES XXIII. XXIV. & XXV.

Illustrate Mr. Scrope's paper on the Geology of the Ponza Isles.

PLATE XXIII.

Map of the volcanic districts between Rome and Naples; and,

Map of the trachytic group of the Ponza Isles.

PLATE XXIV.

Fig. 1. View of the Island of Ponza from the East side, about four miles distance.

Fig. 2. Semicircular cove called Chiaja di Luna, Isle of Ponza, S.W. side.

Fig. 3. Montagna della Guardia from the South.

Fig. 4. Rock of contorted and globiform pitchstone, Chiaja di Luna, Isle of Ponza.

PLATE XXV.

Figs. 1, 2 & 4. Views of the eastern side of Ponza.

Fig. 3. Rock of columnar trachyte near the N. E. point of Palmarola.

Fig. 5. Zannone seen from the south.

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Fig. 6. Zannone seen from the east.

Fig. 7. South-east view of Ventotiene and San Stefano.

PLATES XXVI. & XXVII.

Illustrate Mr. Yates's paper on the Structure of the Border Country of Salop and North Wales; and of some detached Groups of Transition Rocks in the Midland Counties.

PLATE XXVI.

Fig. 1. Map of part of the county of Warwick, &c.

Fig. 2. Section illustrative of the same.

Fig. 3. East and west section of the Wren's Nest.

PLATE XXVII.

Figs. 1 & 2. Impressions of plants, (fuci?) from the slate-clay at Colmore's Farm, Bromsgrove Lickie.

Fig. 3. Beds of greenstone, breaking through the grauwacke at Griff Hollow, Warwickshire.

Fig. 4. Strata of quartz-rock, Bromsgrove Lickey.—A, B, highly ferruginous and micaceous shale.

PLATES XXVIII. & XXIX.

Illustrate Mr. Aikin's paper on the Geological Structure of Cader Idris.

PLATE XXVIII.

The map which occupies the greater part of this Plate represents the principal features of Cader Idris and the adjacent country, copied by permission from one of the Ordnance surveys.

The winding crest of the mountain is seen stretching eastward from Barmouth Bay to the deep transverse valley of Tal y Llyn, which runs N. E. and S. W., and is the boundary of Cader Idris on that side. On the North is seen the broken ground extending to the Mawddach and its accompanying marshes, and consisting chiefly of trap rocks intermingled more or less with slate. From Mynydd pen y Caed, a little to the South of the summit of Cader Idris, begins the line of section described in Mr. Aikin's paper, which terminates North of Dalgelle, a little beyond the margin of the map.—An elevation of this section is represented in outline at the bottom of the plate.

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PLATE XXIX,

Contains three geometrical elevations of Cader Idris, with the heights, in feet, above the level of the sea. The base of the North elevation is the valley of the river from Dalgelle to the sea. That of the South elevation is the valley of Tal y Llyn. That of the Section is a line running from the head of Tal y Llyn lake in a N. N. W. direction, through the summit of Cader Idris, to the river Mawddach.

PLATE XXX.

Illustrates Mr. Lyell's papers, on the Strata of the Plastic Clay Formation exhibited in the Cliffs between Christchurch Head, Hampshire, and Studland Bay, Dorsetshire; and on the Freshwater Strata of Hordwell Cliff, Beacon Cliff, and Barton Cliff, Hampshire.

Fig. 1. Section of the coast from Muddiford, Hants, to Studland Bay, Dorset.

Fig. 2. Section of the lower freshwater strata in Hordwell, Beacon and Barton, Cliffs, Hants.

PLATES XXXI. & XXXII.

Illustrate Mr. Murchison's paper on the Brora Coal-field, and some other Stratified Deposits in the North of Scotland.

PLATE XXXI.

Fig. 1. A map of all that part of the S. E. coast of Sutherlandshire in which any members of the oolitic series have been traced, including the coal-field of Brora; showing also the nature of the mountain chain which bounds the Vales of Brora, Loth and Navidale.

In the lower part of the same figure is a sectional view of the coast laid down in the map.

Fig. 2. Consists of transverse sections. The first is ideal, explaining the entire order of superposition on the east coast of Sutherland, Cromarty and Ross; followed by six actual sections from the shore to the mountain chain,—of which that on the line C, D of the map particularly explains the relations of the Brora coal-field.

Fig. 3. A sectional view of part of the east coast of Ross and Cromarty, to explain the relations of the lias, as seen at low-water near Shandwick and Ethic bays. The second section from the left in *fig. 2.* relates also to this tract, showing the red conglomerate to be alone interposed between the lias and the primitive rocks.

Fig. 4. A sectional view of part of the Coast of Skye near Portree. The small valley of Beal inclosed by mountains of trap, is composed of cornbrash limestone, &c. resting upon the inferior oolite. This limestone of Beal is traversed by fissures, one of which is still occupied by compact zeolitic greenstone.

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PLATE XXXII.

- Fig. 1.* Part of the irregularly tuberculated stem nearest to the root of *oncylogonatum carbonarium*.
- Fig. 2.* Part of the same more regularly jointed, traversing the sandstone of the eastern Moorlands of Yorkshire.
- Fig. 3.* Specimen of micaceous shale, representing impressions of the jointed stems of the above plant, with their grooved expansions, and of the roots,—both flattened by pressure.
- Fig. 4.* A portion of the bed immediately above the coal of Brora; exhibiting striated delineations similar to those of *fig. 3*.
- Fig. 5.* Subtriangular carbonaceous plates, occasionally found in the micaceous shale of *fig. 3*.
- Fig. 6.* The expansions of *fig. 3*. magnified, exhibiting the raised dots between the grooves.
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PLATE XXXIII.

Illustrates Sir A. Crichton's paper on some Parts of the Taunus, &c., and represents the fossils referred to in the note at p. 268. This description is by Mr. G. B. Sowerby, F.L.S.

- Fig. 1.* Cast of the inside of a spirifer.
- Fig. 2.* This shell appears to be a *Pleurobronchus* of Cuvier (*Lamellaria* of Montagu):—and in this opinion, Mr. Sowerby states, that he is confirmed by M. Heninghaus of Crefeld.
- Fig. 3.* Transverse section of a circular encrinital vertebra.
- Fig. 4.* Cast of a turbinated shell, probably a *Cirrus*.
- Fig. 5.* *Spiriferæ*: the same as *fig. 1*: and cast of the inside of an undescribed hystero-lite or terebratula.
- Fig. 6.* Transverse sections of a singular encrinital column. These sections are of a very varied figure, most of them elliptical, probably from their having been compressed in a lateral direction; and their central perforation is pentagonal, frequently forming five stellated points.
- Fig. 7.* Longitudinal section of one of the same columns.
- Fig. 8.* Convoluted section of the same.
- a.* transverse section, similar to those of *fig. 7*.
- Fig. 9.* Longitudinal section of another species of encrinital stem.
- Fig. 10.* Impression of part of the stem of a reed.
- Fig. 11.* Jointed portion of another reed stem.
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