

APPENDIX

I.—LIST OF PAPERS, BOOKS, ETC., BY SIR ANDREW C. RAMSAY, F.R.S.¹

1840

- ‘Notes taken during the Surveys for the Construction of the Geological Model Maps and Sections of the Island of Arran.’
Rep. Brit. Assoc. for 1840 [1841]. Sections, p. 92.

1841 and previous years

- ‘The Geology of the Island of Arran, from original survey.’ 8vo.
Glasgow [1841].

1846

- ‘On the Denudation of South Wales and the adjacent Counties of England.’ *Mem. Geol. Survey*, vol. i. pp. 297-335.

1847

- ‘On the Causes and Amount of Geological Denudations.’ A discourse at the Royal Institution. *Athenæum*, 27th March 1847, p. 342.
‘On the Origin of the existing Physical Outline of a portion of Cardiganshire.’ *Rep. Brit. Assoc.* for 1847 [1848]. Sections, pp. 66, 67.

1848

- ‘Sketch of the Structure of Parts of North and South Wales.’
(With W. T. Aveline.) *Quart. Journ. Geol. Soc.* vol. iv. pp. 294-297.

¹ The years put in separate lines are generally those in which the work was done; the years placed within square brackets give the dates of publication.

'Passages in the History of Geology.' Two Lectures at University College, London. 8vo. London, 1848, and second lecture 1849.

'On some points connected with the Physical Geology of the Silurian district between Builth and Pen-y-bont, Radnorshire.' *Rep. Brit. Assoc.* for 1848 [1849]. Sections, p. 73.

1850

'On the Geological Phenomena that have produced or modified the Scenery of North Wales.' Friday evening discourse at Royal Institution. *Athenæum*, 6th April 1850, p. 377.

'On the Geological Position of the Black Slates of Menai Straits, etc.' *Rep. Brit. Assoc.* for 1850 [1851]. Sections, p. 102.

1852

'On the Science of Geology and its Applications.' Introductory Lecture to the Course of Geology, School of Mines, Session 1851-52. *Records School of Mines*, vol. i. pp. 81-102.

'On the Superficial Accumulations and Surface-markings of North Wales.' *Quart. Journ. Geol. Soc.* vol. viii. pp. 371-376.

1853

'On the Physical Structure and Succession of some of the Lower Palæozoic Rocks of North Wales and part of Shropshire,' with Notes on the Fossils by J. W. Salter. *Quart. Journ. Geol. Soc.* vol. ix. pp. 161-179.

1854

'On the Geology of the Gold-bearing District of Merionethshire, North Wales.' *Quart. Journ. Geol. Soc.* vol. x. pp. 242-247.

'On the former probable existence of Palæozoic Glaciers.' *Rep. Brit. Assoc.* for 1854 [1855]. Sections, pp. 93, 94.

'On the thickness of the Ice of the ancient Glaciers of North Wales, and other points bearing on the Glaciation of the Country.' *Rep. Brit. Assoc.* for 1854 [1855]. Sections, pp. 94, 95.

'On the occurrence of Angular, Subangular, Polished, and Striated Fragments and Boulders in the Permian Breccia of Shropshire, Worcestershire, etc. ; and on the Probable Existence of Glaciers

and Icebergs in the Permian Epoch.' *Quart. Journ. Geol. Soc.*
vol. xi. pp. 185-205.

1857

'On certain peculiarities of Climate during part of the Permian Epoch.' *Proc. Roy. Inst.* vol. ii. pp. 417-421.

1858

'The Physical Structure of Merionethshire and Caernarvonshire.'
Geologist, vol. i. pp. 169-174.

'On the Geological Causes that have influenced the Scenery of
Canada and the North-eastern Provinces of the United States.'
Proc. Roy. Inst. vol. ii. pp. 522-524.

'Geology of Parts of Wiltshire and Gloucestershire.' (With W. T.
Aveline and E. Hull.) *Geol. Survey Mem.* 8vo. London, 1858.

'Geological Surveys in Great Britain and her Dependencies.'
Saturday Review, 3rd July, pp. 8-10.

'Descriptive Catalogue of the Rock Specimens in the Museum of
Practical Geology.' (With H. W. Bristow, H. Bauerman, and
A. Geikie.) 8vo. London, 1858; 2nd edit., 1859; 3rd edit.,
1862.

1859

'On Some of the Glacial Phenomena of Canada and the North-
eastern Provinces of the United States during the Drift-
Period.' *Quart. Journ. Geol. Soc.* vol. xv. pp. 200-215.

'Geology of Pennsylvania.' *Saturday Review*, 30th April and 28th
May, pp. 530, 531, 558-560.

'Beach Rambles.' (Review of J. G. Francis's 'Beach Rambles in
Search of Sea-side Pebbles and Crystals.') *Saturday Review*,
12th November, pp. 585, 586.

'Geological Map of England and Wales.' (Stanford.) 1859. 3rd
edit., 1872; 4th edit., 1877; 5th edit., 1881.

1860

'The Old Glaciers of Switzerland and North Wales.' 8vo. London.
(Printed in *Peaks, Passes, and Glaciers*, by the Alpine Club.
8vo. 1859.)

'Geological Surveys of Canada and New Zealand.' *Saturday Review*,
11th August, pp. 174-176.

1861

- 'Lyell and Tennyson.' *Saturday Review*, 22nd June, pp. 631, 632.
 'Kensington Gardens.' *Saturday Review*, 29th June, pp. 668, 669.

1862

- 'On the Glacial Origin of certain Lakes in Switzerland, the Black Forest, Great Britain, Sweden, North America, and elsewhere.' *Quart. Journ. Geol. Soc.* vol. xviii. pp. 185-204.
 'The Excavation of the Valleys of the Alps.' *Phil. Mag.* vol. xxiv. pp. 377-380.

1863

- 'Breaks in Succession of the British Palæozoic Strata.' Address to Geological Society. *Quart. Journ. Geol. Soc.* vol. xix. pp. xxix-lii.

1863-78

- 'The Physical Geology and Geography of Great Britain.' 8vo. London. 2nd edit., 1864; 3rd edit., 1872; 4th edit., 1874; 5th edit., 1878.

1864

- 'Notes accompanying Translation of Paper on "The Sahara, and its Different Types of Deserts and Oases,"' by E. Desor. *Geol. Mag.* vol. i. pp. 27-34.
 'The Breaks in Succession of the British Mesozoic Strata.' Address to Geological Society. *Quart. Journ. Geol. Soc.* vol. xx. pp. xl-lx.
 'On the Erosion of Valleys and Lakes: a Reply to Sir Roderick Murchison's Anniversary Address to the Geographical Society.' *Phil. Mag.* vol. xxviii. pp. 293-311.
 'The Geology of Canada.' *Saturday Review*, 26th March, pp. 383, 384.
 'Changes of Climate.' *Saturday Review*, 14th May and 11th June, pp. 591, 592, 719-721.

1865

- 'The Ice-drifted Conglomerates of the Old Red Sandstone.' *Reader*, 12th August, p. 186.

'On the Eozoon and the Laurentian Rocks of Canada.' *Proc. Roy. Inst.* vol. iv. pp. 374-377.

'Sir Charles Lyell and the Glacial Theory of Lake Basins.' *Phil. Mag.* vol. xxix. pp. 285-298.

1866

'The Geology of North Wales.' With Appendix on Fossils by J. W. Salter. *Geol. Survey Mem.* 8vo. London, 1866. 2nd edit. 1881.

'Address to the Geological Section of the British Association at Nottingham.' *Rep. Brit. Assoc.* for 1866 [1867]. Sections, pp. 46-50.

1868

'Review of 1st vol. of Lyell's "Principles of Geology."' *Saturday Review*, 11th and 18th April.

1869

'Evidence given before the Royal Commission on Water-Supply.' *Report*, pp. 104-107. Folio. London.

'Report on Ice as an Agent of Geologic Change. (With O. Torell and H. Bauerman.) *Rep. Brit. Assoc.* for 1869 [1870], pp. 171-174.

1871

'On the Recurrence of Glacial Phenomena during great Continental Epochs.' *Nature*, vol. v. pp. 64, 65.

'On the Physical Relations of the New Red Marl, Rhætic Beds, and Lower Lias. *Quart. Journ. Geol. Soc.* vol. xxvii. pp. 189-199.

'On the Red Rocks of England of older date than the Trias.' *Quart. Journ. Geol. Soc.* vol. xxvii. pp. 241-256.

'Report on the Probability of finding Coal under the Permian, New Red Sandstone, and other superincumbent Strata.' *Roy. Comm. on Coal*, vol. i. pp. 119-145. Also *Evidence*, vol. ii. pp. 422-424, 449, 463-488. Folio. London.

1872

'On the River-courses of England and Wales.' *Quart. Journ. Geol. Soc.* vol. xxviii. pp. 148-160.

- 'The River Po.' *Macmillan's Magazine*, vol. xxvii. pp. 125-129.
 ('Les Inondations en Italie.') Il Fiume Po. *Bolletino del Club Alpino Italiano*, vol. vi. 8vo. Turin, 1873. (Translated from *Macmillan's Magazine*, December 1872.)

1872-1881

- 'Annual Reports of the Director-General of the Geological Survey of the United Kingdom, the Museum of Practical Geology, the Royal School of Mines, and the Mining Record Office, for the years 1871 to 1881.' *Reports of Science and Art Department*.

1873

- 'On Old Continents.' *Proc. Roy. Inst.* vol. vii. pp. 32-34.
 (Translated into French in the *Revue Scientifique*.)
 'Report on the Exploration of Brixham Cave,' conducted by a Committee of the Geological Society. (Report prepared by J. Prestwich, agreed and approved by G. Busk, R. Godwin-Austen, and A. C. Ramsay.) *Phil. Trans.* vol. clxiii. pp. 471-572.
 'The History of Great Britain.' *Saturday Review*, 25th January, pp. 110, 111.

1874

- 'On the Comparative Value of certain Geological Ages (or groups of Formations) considered as Items of Geological Time.' *Proc. Roy. Soc.* vol. xxii. pp. 334-343.
 'Article "Geology" in Blackie's "The Popular Encyclopædia."' 8vo. London.
 'On the Physical History of the Rhine.' *Proc. Roy. Inst.* vol. vii. pp. 279-288.
 'The Physical History of the Valley of the Rhine.' *Quart. Journ. Geol. Soc.* vol. xxx. pp. 81-95.

1875

- 'The Pre-Miocene Alps, and their subsequent Waste and Degradation.' *Proc. Roy. Inst.* vol. vii. pp. 455-457.
 'Geological History of some of the Mountain Chains and Groups of Europe.' Lectures at the Royal School of Mines. *Mining Journal*, vol. xlv. pp. 57, 79, 106, 135, 162, 191.

- 'General Instructions for Observations in Geology.' (With J. Evans.)
In 'Manual of the Natural History, etc., of Greenland and the
neighbouring Regions'; prepared for the use of the Arctic
Expedition of 1875. 8vo. London. Pp. 68-77.
- 'Evidence given before Civil Service Inquiry Commission: and
Memorandum on the Geological Survey.' *Second Report of
Commission, with Appendix.* Folio. London. Pp. 43-46,
70-72.
- 'Orographical Series of Wall Maps.' (Stanford's.) British Isles,
Europe, etc.
1876
- 'How Anglesey became an Island.' *Quart. Journ. Geol. Soc.* vol.
xxxii. pp. 116-122.
- Note appended to paper by William Ramsay, 'On the Influence of
Various Substances in Accelerating the Precipitation of Clay
suspended in Water.' *Quart. Journ. Geol. Soc.* vol. xxxii.
p. 132.
- 'On the Physical History of the Dee, Wales.' *Quart. Journ. Geol.
Soc.* vol. xxxii. pp. 219-229.
- 'The Origin of Lake-Basins.' (A Letter.) *Geol. Mag.* Decade II.
vol. iii. pp. 136-138.
- 1877
- 'The Origin and Progress of the Geological Survey of the British
Isles, and the Method on which it is conducted.' In *Science
Conferences.* Conferences held in connection with the Special
Loan Collection of Scientific Apparatus, vol. ii. pp. 364-380.
8vo. London.
- 'Report on the Question of the Supply of Fresh Water to the Town
and Garrison of Gibraltar.' Folio. London.
- 'The Existence of Coal beneath the New Red and Permian Strata.'
Proc. Dudley Geol. Soc. vol. iii. pp. 35-37.
- 1878
- 'The Geology of Gibraltar and the Opposite Coast of Africa; and
the History of the Mediterranean Sea.' *Proc. Roy. Inst.* vol.
viii. pp. 594-601.
- 'Geological Map of the British Isles.' (Stanford.) 1878.
- 'On the Geology of Gibraltar.' (With J. Geikie.) *Quart. Journ.
Geol. Soc.* vol. xxxiv. pp. 505-541.

1879

'Discussion at Annual Conference on National Water-Supply, etc.'
Journ. Soc. Arts, vol. xxvii. p. 159.

1880

'On the Recurrence of certain Phenomena in Geological Time.'
(Presidential Address to the British Association.) *Rep. Brit. Assoc.* for 1880, pp. 1-22.

1881

'On the Origin, Progress, and the Present State of British Geology, especially since the first meeting of the British Association at York in 1831.' Address to Section C. *Rep. Brit. Assoc.* for 1881 [1882], pp. 605-608.

1883

'Notes on the Geology of St. David's.' (1842-43.) In paper 'On the Supposed Pre-Cambrian Rocks of St. David's,' by A. Geikie. *Quart. Journ. Geol. Soc.* vol. xxxix. pp. 263, 264.

1885

'Stanford's Compendium of Geography—Europe.' (With F. W. Rudler, G. G. Chisholm, and A. H. Keane.) 8vo. London.

II.—LIST OF GEOLOGICAL SURVEY MAPS (ONE-INCH SCALE), PARTS OF WHICH WERE SURVEYED BY SIR A. C. RAMSAY.¹

England and Wales

Sheet 19.	(1845) Mendip Hills, Bath.
„ 35.	(1845) Bristol, Chepstow, Cotteswold Hills.
„ 38.	(1845) Pembroke, Milford Haven.
„ 40.	(1845) St. David's.
„ 41.	(1845) Caermarthen, Llandeilo, Llandovery.
„ 43. S.E.	(1845) Woolhope, Malvern, Ledbury.
„ 53. N.W.	(1855) Coventry, Rugby, Leamington.
„ 54. N.W.	(1852) Kidderminster, Bromsgrove.

¹ The original dates of publication are given, but new editions of some of the Sheets have been published.

- Sheet 56. N.W. (1850) Rhayader.
 „ 56. N.E. (1850) Clun, Knighton, Presteign.
 „ 56. S.W. (1850) Builth.
 „ 56. S.E. (1850) New Radnor.
 „ 57. N.W. (1848) Cardiganshire coast.
 „ 57. N.E. (1848) Aberystwith.
 „ 57. S.W. (1848) Aberavon, Aberforth.
 „ 57. S.E. (1848) Lampeter, Tregaron.
 „ 58. (1850) Cardiganshire coast.
 „ 59. N.E. (1850) Barmouth, Dolgelly, Cader Idris.
 „ 59. S.E. (1848) Machynlleth, Aberdovey, Plinlimmon.
 „ 60. N.W. (1851) Dinas Mowddwy, Llanfair.
 „ 60. N.E. (1850) Welshpool.
 „ 60. S.W. (1850) Llanidloes.
 „ 60. S.E. (1850) Montgomery, Bishops Castle.
 „ 61. N.W. (1855) Shrewsbury.
 „ 61. N.E. (1855) Wellington, Wrekin.
 „ 61. S.W. (1850) Church Stretton, Longmynd.
 „ 62. N.W. (1852) Cannock Chase.
 „ 62. S.W. (1852) Wolverhampton, Dudley.
 „ 62. N.E. (1856) Lichfield, Tamworth.
 „ 62. S.E. (1855) Birmingham.
 „ 71. N.W. (1855) Belper, Wirksworth.
 „ 72. N.E. (1852) Ashbourn.
 „ 74. N.W. (1850) Corwen, Pentre Voelas.
 „ 74. N.E. (1850) Crewe, Nantwich.
 „ 74. S.W. (1850) Bala, Hirnant.
 „ 74. S.E. (1850) Oswestry.
 „ 75. N.W. (1850) Nevin, Caernarvonshire.
 „ 75. N.E. (1851) Snowdon, Tremadoc.
 „ 75. S.E. (1851) Harlech, Portmadoc.
 „ 77. N. (1852) Holyhead Island.
 „ 78. N.W. (1852) Anglesey, part of Holyhead.
 „ 78. N.E. (1852) Beaumaris, Conway.
 „ 78. S.W. (1852) Anglesey, Caernarvon.
 „ 78. S.E. (1852) Bangor, Llanberis.
 „ 79. N.W. (1850) Little Orme's Head.

Scotland

- „ 33. (1860) Dunbar, Haddington.

III.—LIST OF HORIZONTAL SECTIONS OF THE GEOLOGICAL SURVEY
DRAWN BY SIR ANDREW C. RAMSAY.

Sheet 1

- No. 1. Section from Porth-wyn, St. Bride's Bay, near Solva, Pembrokeshire, to the north cliff of Ynys-y-Barry; on a line 100° W. of N. from Porth-wyn to the cross-roads near Shyvog Common, and 5° E. of N. from thence to the sea. By A. C. Ramsay and W. T. Aveline.
- No. 2. Section across Pembrokeshire, from South to North. From St. Gowan's Head to Lanstadwell, from Lanstadwell to Trefgarn Rock, and thence to Dinas Head, near Fishguard. By A. C. Ramsay and W. T. Aveline. (1845. Revised 1857.)

Sheet 3

- No. 1. Section from Cerrig-dwfn to Mynydd-bancy-ffair, near Llandeilo. By A. C. Ramsay.
- No. 3. Section from the Black Mountain, near Llangadoc, to Cefnllwyn hir, Caermarthen. By H. T. De la Beche, A. C. Ramsay, and W. T. Aveline. (1844.)

Sheet 4

- No. 4. Section from Mynydd Bwlch-y-groes, Brecknock to Craig-ddu, Cardigan Bay. By A. C. Ramsay and W. T. Aveline. (1845. Revised 1858.)

Sheet 5

- No. 1. Section across the Old Red Sandstone and Silurian Rocks, from the Black Mountain Range S.E. of Glasbury to Allt-wen, Cardigan Bay, near Aberystwith. By A. C. Ramsay, T. E. James, and W. T. Aveline. (1845. Revised 1858.)

Sheet 6

- No. 2. Section across the Silurian Rocks, from Gwaun Ceste to Rhiw Gwraidd, Radnor. (1845. Revised 1858.)

Sheet 13

- No. 1. Section from Edge Hill, Forest of Dean, to Taynton House.
(N.D.; about 1845.)

Sheet 14

- No. 2. Section from the Great Western Railroad, near Saltford Station, to the Box Valley near Slaughterford. (1845.)

Sheet 15

- No. 1. Section from Ridge Barn Hill, near Castle Cary, Somerset, to Jay Hill, near Bitton, Gloucester. By H. T. De la Beche, D. H. Williams, and A. C. Ramsay. (1845.)

Sheet 27

- Section across Radnor Forest and Hanter Hill, to the Old Red Sandstone near Fern Hall, South of Kington, Herefordshire. By A. C. Ramsay, H. W. Bristow, and W. T. Aveline. (1852.)

Sheet 28

- Section from Llanfair-is-gaer, Menai Straits, over the Cambrian and Silurian Rocks of Dinas, Snowdon, Cynicht, Moel-wyn, Cors-goch (near Trawsfynydd), Aran Mowddwy, and Newtown, Montgomeryshire, and the Upper Silurian Rocks and Old Red Sandstone of Clun Forest, Bucknall, Wigmore Valley, Orleton, etc., near Ludlow. (1853.)

Sheet 29

- Section from Craig das Eithin across Y Dduallt, Aran Mowddwy, and Cwledog, Merionethshire. By A. C. Ramsay, A. R. C. Selwyn, and W. T. Aveline. (1853.)

Sheet 31

- Section from the Suspension Bridge, Menai Straits, across Y-Glyder-fawr, Moel Siabod, Bala Lake, etc. (1854.)

Sheet 40

- No. 1. Section from Porth Llanlliana, across Anglesey to the Menai Straits at Llanidan.
- No. 2. Section from Carmels Point to the north shore of Church Bay, N.W. of Anglesey.
- No. 3. Section across Anglesey from Point Ælianus to the Menai Bridge by Traeth Dulas and Pentraeth. (With explanation, 1857.)

Sheet 44

- No. 2. Section through Tan-y-Castell, Cefn-y-Fedw, etc. (Account of Silurian, Old Red Sandstone, and Carboniferous Rocks in 'Explanation,' 1859.)

Sheet 45

- No 1. Section across the Upper Silurian Rocks and Coal-measures of Coalbrook Dale, etc. (Notes in 'Explanation,' 1859.)

Sheet 50

- Section from near Cleobury Mortimer to Nuneaton, Forest of Wyre, Clent Hills, etc. (Notes in 'Explanation,' 1859.)

Sheet 54

- No. 1. Section from N.W. to S.E., across the Wrekin, Coalbrook Dale Coalfield, Shropshire, and the New Red Sandstone of Beckbury, Pattingham, and Oretton Hill, to Baggeridge Wood, South of Wolverhampton, Staffordshire. By A. C. Ramsay, D. H. Williams, and E. Hull (1858). (With explanation, 1859.)

Sheet 58

- No. 2. Section from W. to E. from Cluddley, near Wellington, across the Coalbrook Dale Coalfield, the Permian Rocks, and New Red Sandstone, near Shiffnal and Brewood to the Western Border of the S. Staffordshire Coalfield S. of Cannock. By A. C. Ramsay, D. H. Williams, and E. Hull. (1860.)

IV.—LIST OF VERTICAL SECTIONS OF THE GEOLOGICAL SURVEY
DRAWN BY SIR ANDREW C. RAMSAY.

Sheet 12

Sections illustrative of the passage of the Old Red Sandstone into the Carboniferous Limestone in South Wales and South-Western England.

No. 2. Skrinkle Haven, Pembrokeshire.

Sheet 15

No. 1. Section through the Silurian strata of May Hill, Gloucestershire.