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PROCEEDINGS

OF THE

SOCIETY OF ANTIQUARIES OF SCOTLAND.

SESSION
MDCCCXCIV.-XCV.



VOL. XXIX.

EDINBURGH:

PRINTED FOR THE SOCIETY BY NEILL AND COMPANY.

MDCCCXCV.



PROCEEDINGS

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Society of Antiquaries of Scotland

ONE HUNDRED AND FIFTEENTH SESSION

1894-95



VOL. V.—THIRD SERIES

Edinburgh

PRINTED FOR THE SOCIETY BY NEILL AND COMPANY MDCCCNCV.

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OFFICE-BEARERS, 1894-95.

Patron.

HER MAJESTY THE QUEEN.

President

The Most Hon. the Marquess of Lothian, K.T., LL.D.

Vice-Presidents.

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douncillors.

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Serretaries.

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ROBERT MUNRO, M.A., M.D.
JOSEPH ANDERSON, LL.D., Assistant Scientery,
Sir Arthur Mitchella
K.C.B., M.D., Ll.D.,
THOMAS GRAVES LAW,

Currespondence.

Trasurer. James Henry Cunningham, 4 Magdala Crescent.

€ urniers of the Museum. Robert Carfkae. Professor Duns, D.D.

€urator of €oins. Adam B. Richardson.

Tibrarian. James Curle, Jud.

THE RHIND LECTURESHIP.

(Insulated 1874, in terms of a Boquest for its endorment by the late Alexander Henry Rhind of Sibster, Hon. Mem. S.A. Scot.)

SESSION 1894-95.

RHIND LECTURER IN ARCH.EOLOGY—ARTHUR J. EVANS, M.A., Keeper of the Ashmolean Museum, Oxford.

LAWS

OF THE

SOCIETY OF ANTIQUARIES OF SCOTLAND.

INSTITUTED NOVEMBER 1780.

(Revised and adopted December 1, 1873.)

The purpose of the Society shall be the promotion of Archæology, especially as connected with the Antiquities and Historical Literature of Scotland.

I. Members.

- The Society shall consist of Ordinary and Honorary Fellows, and of Corresponding and Lady Associates.
 - 2. The number of the Ordinary Fellows shall be unlimited.
- Candidates for admission as Ordinary Fellows must sign the Form of Application prescribed by the Council, and must be recommended by one Ordinary Fellow and two Members of the Council.
- 4. The Secretary shall cause the names of the Candidates and of their Proposers to be inserted in the billet calling the Meeting at which they are to be balloted for. The Ballot may be taken for all the Candidates named in the billet at once; but if three or more black balls appear, the Chairman shall cause the Candidates to be balloted for singly. No Candidate shall be admitted unless by the votes of two-thirds of the Fellows present.
 - 5. The number of Honorary Fellows shall not exceed twenty-five ; and vol. xxix. b

shall consist of men eminent in Archæological Science or Historical Literature, and they shall not be liable for any fees of admission or annual contributions.

- All recommendations of Honorary Fellows must be made through the Council; and they shall be balloted for in the same way as Ordinary Fellows.
- Corresponding Associates must be recommended and balloted for in the same way as Ordinary Fellows, and they shall not be liable for any fees of admission or annual contributions.
- 8. The number of Lady Associates shall not exceed twenty-five. They shall be elected by the Council, and shall not be liable for any fees of admission or annual contributions.
- 9. Before the name of any person can be recorded as an Ordinary Fellow, he shall pay Two Guineas of entrance fees to the funds of the Society, and One Guinea for the current year's subscription. Or he may compound for all future contributions, including entrance fees, by the payment of Twenty Guineas at the time of his admission; or of Fifteen Guineas after having paid five annual contributions; or of Ten Guineas after having paid ten annual contributions.

10. If any Ordinary Fellow who has not compounded shall fail to pay his annual contribution of One Guinea for three successive years, due application having been made for payment, the Treasurer shall report the same to the Council, by whose authority the name of the defaulter may be erased from the list of Fellows.

- 11. Every Fellow not being in arrears of his annual subscription shall be entitled to receive the printed Proceedings of the Society from the date of his election, together with such special issues of Chartularies, or other occasional volumes, as may be provided for gratuitous distribution from time to time under authority of the Council. Associates shall have the privilege of purelasing the Society's publications at the rates fixed by the Council for supplying back numbers to the Fellows.
- 12. None but Ordinary Fellows shall hold any office or vote in the business of the Society.

II. Office-Bearers and Council.

- 1. The Office-Bearers of the Society shall consist of a President, who continues in office for three years; three Vice-Presidents, two Secretaries for general purposes, and two Secretaries for Foreign Correspondence, a Treasurer, two Curators of the Museum, a Curator of Coins, and a Librarian, who shall be elected for one year, all of whom may be reelected at the Annual General Meeting, except the first Vice-President, who shall go out by rotation, and shall not be again eligible till he has been one vear out of office.
- 2. The Council shall consist of the Office-Bearers and seven Ordinary Fellows, besides two annually nominated from the Board of Manufactures. Of these seven, two shall retire annually by rotation, and shall not be again eligible till they have been one year out of office. Any two Office-Bearers and three of the Ordinary Council shall be a quorum.
- 3. The Council shall have the direction of the affairs and the custody of the effects of the Society; and shall report to the Annual General Mecting the state of the Society's funds, and other matters which may have come before them during the preceding year.
- The Council may appoint committees or individuals to take charge of particular departments of the Society's business.
 - 5. The Office-Bearers shall be elected annually at the General Meeting.
- 6. The Secretaries for general purposes shall record all the proceedings of meetings, whether of the Society or Council; and conduct such correspondence as may be authorised by the Society or Council, except the Foreign Correspondence, which is to be carried on, under the same authority, by the Secretaries appointed for that particular purpose.
- 7. The Treasurer shall receive and disburse all moneys due to or by the Society, and shall lay a state of the funds before the Council previous to the Annual General Meeting.
- The duty of the Curators of the Museum shall be to exercise a general supervision over it and the Society's Collections,
 - 9. The Council shall meet during the session as often as is requisite

for the due despatch of business; and the Secretaries shall have power to call Meetings of the Council as often as they see cause.

III. MEETINGS OF THE SOCIETY.

- One General Meeting shall take place every year on St Andrew's day, the 30th of November, or on the following day if the 30th be a Sunday.
- The Council shall have power to call Extraordinary General Meetings when they see cause.
- The Ordinary Meetings of the Society shall be held on the second Monday of each month, from December to March inclusive at Eight P.M., and in April and May at Four P.M.

The Council may give notice of a proposal to change the hour and day of meeting if they see cause.

IV. Bye-Laws.

- 1. All Bye-Laws formerly made are hereby repealed.
- 2. Every proposal for altering the Laws as already established must be made through the Council; and if agreed to by the Council, the Sceretary shall cause intimation thereof to be made to all the Fellows at least three months before the General Meeting at which it is to be determined on.

Form of Special Bequest.

I, A. B. do hereby leave and bequeath to the Society of Antiquaries of Scotland incorporated by Royal Charler, my collection of , and I direct that the sume shall be delivered to the said Society on the receipt of the Secretary or Treasurer thereof.

General Form of Bequest.

I, A. B. do hereby leave and bequeath to the Society of Antiquaries of Scotland incorporated by Royal Charter, the sum of \pounds , sterling, to be used for the general purposes of the Society of or any special purposes or objects, as the Society may determine from time to time, and I direct that the said sum may be paid to the said Society on the receipt of the Treasurer for the time being.

LIST OF THE FELLOWS

OF THE

SOCIETY OF ANTIQUARIES OF SCOTLAND.

NOVEMBER 30, 1895.

PATRON. HER MAJESTY QUEEN VICTORIA.

1879. Aberg Romby, Hon. John, 62 Palmerston Place.

IS53. ABERDEIN, FRANCIS, The Mall, Montrose.
IS58. ADAM, ROBERT, Accountant, 2 Gills-

land Road. ISS9, Agnew, Alexander, Procurator-

IS89. Agnew, Alexander, Procurator-Fiscal, Balwherrie, Dundec. IS84. Agnew, Sir Stair, K.C.B., M.A., 22

Buckingham Terrace. 1887. AIRMAN, ANDREW, Banker, 27 Buck-

ingham Terrace. IS94. Aikman, Walter Menteith, 2217

IS92. Allsa, The Most Hon, the Marquis of, Culzean Castle, Maybole.

1877. AINSLIE, DAVID, Costerton House, Blackshiels. 1884. AITKEN, GEORGE SHAW, Architect.

49 Queen Street.

1892. AITKEN, JAMES 11., Garteows, Falkirk. 1886. Alexander, W. Lindsay, Pinkieburn, IS79. ALLEN, J. ROMILLY, C.E., 28 could be Ormond Street, London, W.C.

IS64.*ANDERSON, ARCHIBALD, 30 Oxford Square, London, W.

IS65. ANDERSON, ARTHUR, C.B., M.D.,

1884. Anderson, Charles M., 7 Welling ton St., Higher Broughton, Manchester.

ISS9. ANDERSON, JAMES, Carronvale, Wardin Road. ISS2. ANDERSON. JOHN. M.D., LL.D.,

71 Harrington Gardens, London, S.W. ISS5, Anderson, P. J., M.A., LL.B., 2 East

Craibstone Street, Aberdeen.

Architect, 16 Butland Square, - Vice-President, 1865. *Anderson Thomas S., Lingarth, New-

burgh, Fife.

1894. Anderson, William, Arns Brac, New Kilpatrick,

An asterisk (') denotes Life Members who have compounded for their Annual Contributions.

- 1887. Andersoff. Berry, David, M.D., Clevedon, Somerset.
- 1894. Angus, Robert, Lugar, Ayrshire.
- 1882. Annandale, Thomas, M.D., Professor of Clinical Surgery, University of Edinburgh, 34 Charlotte Square.
- 1850. ARGYLL, His Grace the Duke of, K.T., D.C.L., Inveraray Castle.
- dolph Cliff.
- 1889. Athole, His Grace the Duke of, K.T., Blair Castle, Blair Athole.
 1886.*Atkinson, W. A., Knockfairie, Pit-
- lochry.
- 1877. Bailey, J. Lambert, Solicitor, Ardrossan.
- 1868, *Bain, Joseph, 3 Heathfield, Wandsworth Common, London, S.W.
- 1889. Bain, William, Bank of Scotland House, Edinburgh.
 1892. Bain, William, Creagorry, South Uist.
- 1892. Bain, William, Creagorry, South Uist. 1891. Baird, William, Clydesdale Bank,
- Portobello, 1883. Balfour, Charles Barrington,
- of Newton Don, Kelso.

 1885. Balfour, Major Francis, Fernie
 Castle, Cupar-Fife.
- 1876. BALLANTINE, ALEXANDER, 42 George
- Street.

 1877. *Bannerman, Rev. D. Douglas, M.A.,
 D.D., Free St Leonard's Manse.
- 1890. BANNERMAN, WILLIAM, M.A., M.D.,
- West Park, Polwarth Terrace.
 1880. Barron, James, Editor of Inverness
 Concer, Inverness.
- 1883. Baxter, James Currie, S.S.C., 45 Heriot Row.
- 1891. Banter, Rev. George Chalmers, F.C. Minister, Cargill, Guildtown, Perth.
- 1891, *Bayne, Thomas, Larchfield Academy, Heleusburgh.
 1884. Beaton, Angus J., C.E., Engineer's
- ISS4. Beaton, Angus J., C.E., Engineer's Office, L. and N.-W. and G.-W. Railway, Birkenhead.
- 1877. BEAUMONT, CHARLES G., M.D., West Terrace, Folkestone.

- 1891, Beck, Egerton W., Chestnut Road, West Norwood, S.E.
- 1863.*Beck, Rev. James, A.M., Bildeston Rectory, Ipswich, Suffolk.
- ISS9. BEDFORD, Surg.-Capt. CHARLES HENRY, D.Sc., M.D., Medical Officer, Lawrence Military Asylum, Sanawar, Punjaub, India.
- 1872. Beer, John T., Green Heys, Rock Ferry, Cheshire.
 1877. Beug, Robert Burns, Solicitor, Kin-
- ross, 1877. Bell, Robert Craigie, W.S., 4
- Buckingham Terrace.

 1889. Bell, Thomas, of Belmont, Hazel-
- wood, Broughty Ferry.

 1877. Bell, Whliam, of Gribdae, Kirk-
- endbright.

 1886. Beveridge, Henry, Pitreavie House,
- Dunfermline.

 1890. Beveridge, Erskine, St Leonard's
- 1890. Beveridge, Erskine, St Leonard Hill, Dunfermline.
- 1891. Beveridge, James, Church of Scotland's Training College, Glasgow.
 1895.*Bhisland, Whliam, 28 Park Circus,
- Glasgow, 1877. Bilton, Lewis, W.S., 16 Hope
- Street.
 1891. Bird, George, 24 Queen Street.
- 1852. Black, William George, 88 West Regent Street, Glasgow.
- 1847.*Blackie, Walter G., Ph.D., LL.D., 17 Stanhope Street, Glasgow.
- 1885, BLAIKIE, WALTER BIGGAR, 11 Thistle Street.
 1891. BLAIR, Rev. WILLIAM, M.A., D.D..
- Leighton Manse, Dunblane. 1879. Blanc, Hippolyte J., A.R.S.A., Archi-
- tect, 73 George Street. 1886, Blyth, R. Henry, 25 Old Elvet, Dur-
- ham. 1887. Bogie, Alexander, Banker, 48 Lauder
- Road. 1892. Bogle. Lockhart, Artist, Stratford
- Studios, Stratford Road, Kensington. 1885, Bompas, Charles S. M., 121 West-
- 1880. Bonar, Horatius, W.S., 15 Strathearn

- 1876. Bonnar, Thomas, 127 George Street. 1880. Borland, John, Etruria Bank, Kil-
- 1873. BOYD, WHLIAM, M.A., Solicitor,
- Peterhead. 1893. BOYLE, the Hon. ROBERT, Colonel, 6
- 1884, BOYNTON, THOMAS, Norman House, Bridlington Quay, Ilull.
- 1883. Brand, David, Sheriff of Ayrshire, 14 Royal Terrace.
- IS91. Brand, James, C.E., 10 Marchmont Terrace, Glasgow.
- ISSA.*BREADALBANE, The Most Hon, the Marquess of, Taymouth Castle. 1857.*Brodie, Sir Thomas Dawson, Bart.,
- 9 Ainslie Place, 1887. Brook, Alex. J. S., 21 Chalmers
- Street. 1878. Broun - Morison, John Broun, of
- Finderlie, Murie House, Errol.

 1885. Brown, Rev. George, Bendochy Manse,
 Comer. Angus.
- Compar-Angus.

 1887. Brown, George, 2 Spottiswoode
- 1884. Brown, G. Baldwin, M.A., Professor of Fine Art, University of Edinburgh,
- 20 Lansdowne Crescent. 1871.*Brown, John Taylor, Gibraltar House,
- 1884. Browne, Right Rev. G. F., B.D., LL.D., Bishop of Stepney, London,
- 1882 Browne, George Washington, A.B.S.A., Architect, 1 Albyn Place.
- ISS5. BRUCE, CHARLES, J.P., Mount Hooly House, Wick.
- 1892. BRUCE, GEORGE WAUGH, Banker, Leven, Fife.
 1882. BRUCE, JAMES, W.S., 59 Great King
- 1882. Bruce, James, W.S., 59 Great King Street. 1893. Bruce, John, Woodbank, Helens-
- 1893. BRUCE, JOHN, WOOGDARK, Herensburgh.
 1880. BRUCE, Rev. WILLIAM, B.D., Duni-
- marle, Culross.

 1894. Brydall, Robert, St George's Art
- School, 8 Newton Terrace, Charing Cross, Glasgow.
- 1889. Bryce, William Moir, 5 Dick Place.

- 1880, BRYDEN, Webell, 15 Palmuston Pl. 1885, Buchanas, Thomas Rymern, M.A., M.P., 10 Moray Place.
- 1882. Bust, John B., M.D., Lecturer on Pathology, 1 Clifton Terrace.
- 1882. BURNET, JOHN JAMES, A.R.S.A., Architect, 18 University Avenue, Hillhead Glassow.
- 1892. BURNETT, Rev. J. B., B.D., Minister of Aberlemno, Forfar.
- Fortrose, 1887. Burns, Rev. Thomas, Croston Lodge,
- Chalmers Crescent.

 1889. Burr, Rev. P. Lorimer, D.D., Manse
- of Lundie and Fowlis, Dundee. 1867.*Bute, The Most Hon. the Marquess
- of, K.T., LL.D., Mountstuart House, Rothesay. IS95. Butler, Charles, D.L., 3 Connaught
- 1880. CALDWELL, JAMES, Craigielea Place,
- 1887. Cameron, J. A., M.D., Naith. 1889. Cameron, John M., M.B., C.M.,
- Gleulee, Dalmuir, Dumbartonshire. 1890. Cameron, Richard, 1 St. David
- Street. 1886. Campbell, Donald, M.D., Craig-
- 1886. Campbell, Sir Dungan Alexander Dundas, Eart, of Barcaldine and Glenure, 16 Ridgeway Place, Wimbledon.
 - 1865. *Campbell, Rev. James, D.D., The Manse, Balmerino, Fifeshire.
 - 1881. Campbell, James, of Craignish, Ardnacreggan, Callander.
 - 1877. *Campbell, James, of Tillichewan, Alexandria, Dumbartonshire.
 - 1874.*Campbell, James A., Ll.D., M.P., of Stracathro, Brechin.
 - 1890. Campbell, James Lennox, Achinacorrach, Dalmally.
 1850.*Campbell, Rev. John A.L., 2 Albyn
 - Place.
 - 1882. Campbell, Patrick W., W.S., 25 Moray Place.

- 1884. Campbell, Richard Vary, M.A., 1879. Cleland, John, M.D., Professor of LL.B., Advocate, 37 Moray Place.
- 1883. Campbell, Walter J. Douglas, of Innis Chonain, Loch Awe. 1877. *Campbell-Bannerman, Sir Henry,
- G.C.B., LL.D., 6 Grosvenor Place, London.
- 1892. Canning, Francis Lennox, Architect to the Orange Free State, South
- 1895. Cappon, Thomas Martin, Architect, Cliffbank, Newport, Fife.
- 1862, *CARFRAE, ROBERT, 77 George Street, Curator of Maseum.
- 1891. Carmichael, James, of Arthurstone, Meigle. 1888. *Carmichael, Sir Thomas D. Gibson.
- Bart, of Castleeraig, Dolphinton. 1889, Carrick, Rev. John Charles, B.D.,
- 1894. Carter, James Gordon, The Rotchell,
- 1871. *Cartwright, Thomas Leslie Mel-VILLE, Melville House, Ladybank,
- 1874. *Chalmers, David, Redhall, Slateford. 1865. Chalmers, James, Westburn, Aber-
- 1890. Chalmers, P. Macgregor, Architect,
- 1761 Hope Street, Glasgow, 1895. Chambers, Charles E. S., 7 Glencain
- 1889. CHATWIN, J. A., Wellington House, Edgbaston, Birmingham.
- 1895. Chisholm, A. W., Goldsmith, 7 Claremont Crescent.
- ISS1. CHRISTIE, JOHN, of Cowden, 19 1882. Christison, David, M.D., 20 Magdala
- 1889. CLARK, DAVID R., M.A., Clairmont,
- Pollokshields. 1885, Clark, George Bennett, W.S., 15
- Douglas Crescent. 1871. *Clark, Sir John Forbes, Bart., LL.D.,
- 1874. CLARKE, WILLIAM BRUCE, M.A., M.B., 51 Harley Street, Cavendish Square, London.

- Anatomy, University of Glasgow.
- 1880. Clouston, Thomas S., M.D., Tipperline House, Morningside Place.
- 1891. COATS, Sir THOMAS GLEN, Bart., of Ferguslie, Paisley.
- 1870. *Cochill, J. G. Sinclair, M.D., St Catharine's House, Ventuor, Isle of
- 1892, Constable, George William, Traquair Estate Office, Innerleithen.
- 1885, Cooper, John, Burgh Engineer, 15 1867. COPLAND, JAMES, Assistant Curator,
- Historical Department, Register House.
- 1895. Corrie, Adam J. Senwick, Kirkend-
- 1891, COUTTS, Rev. Alfred, B.D., F.C. Minister, Pathhead, Kirkcaldy.
- 1879. *Cowan, Rev. Charles J., B.D., Morebattle, Kelso.
- 1865. *Cowan, James, 35 Royal Terrace. ISS7. COWAN, JOHN, W.S., St Roque,
- Grange Loan. 1888. Cowan, William, 7 Braid Avenne.
- 1893, Cox, Alfred W., Westwood, Perth.
- 1876. Cox, James C., The Cottage, Lochee, Dundee.
- 1877. Cox, Robert, M.A., M.P., 34 Dremsheugh Gardens.
- 1882, Craebje, George, 56 Palmersion
- 1879. Crabbie, John M., 33 Chester Street. 1892. Craig-Brown, T., Woodburn, Selkirk.
- 1892. Craigie, Wm. A., M.A., 142 North Street, St Andrews.
- 1879. CRAIK, GEORGE LILLIE, 29 Bedford
- 1893. CRAMOND, WILLIAM, M.A., LL.D.,
- Cullen. 1880. CRAN, JOHN, Kirkton, Inverness.
- 1892, CRAW, 11. HEWAT, West Foulden.
- Berwick-on-Tweed. 1889, Crawfurd, Rev. J. Howard, M.A.,
- 1861, *CRAWFURD, THOMAS MACKNIGHT, of
- Cartsburn, Lauriston Castle. 1878. CROAL, THOMAS A., 16 London Street.

- 1892. CROCKETT, Rev. W. S., Twee-Ismuir, Biggar.
- 1889. CROMBIE, Rev. JAMES M., The Manse, Cote des Neiges, Montreal, Canada.
- 1886. Cross, Robert, 8 Rothesay Terrace. 1891. Cullen, Alexander, Architect, Cly.
- Street, Motherwell. 1867. *Cuming, H. Syer, 63 Kennington Park Road, Surrey.
- 1883, CUNNINGHAM, CARUS D., Oriental Club, Hanover Square, London.
- 1891. CUNNINGHAM, JAMES HENRY, C.E., 4 Magdala Crescent,—Treasure.
- 1893. Cunnington, B. Howard, Devizes, 1867. Curle, Alexander, of Morriston,
- Priorwood, Melrose. 1893. Curle, Alex. O., W.S., 32 Melville St.
- 1889. Curle, James, jun., Priorwood, McIrosc,—Librarian.
 1886. Currie, James, jun., Larkfield, Golden
- Acre.
 1884. Currie, Walter Thomson, of Tryn-
- Iaw, Cupar-Fife. 1879. *Cursiter, James Walls, Albert St.,
- 1879. Dalgleish, J. J., Brankston Grange,
- IS93. Dalrymple, Sir Charles, Bart., M.P., Newhailes, Mid-Lothian.
- 1883. Dalrymple, Hon. Hew Hamilton, Oxenfoord Castle, Dalkeith.
- 1866. Davidson, C. B., LL.D., Advocate, Roundhay, Fonthill Road, Aberdeen.
- 1872 DAVIDSON, HUGH, Procurator-Fiscal, Braedale, Lanark.
- 1886. Davidson, Jas., Solicitor, Kirriemair. 1882. *Deuchar, David, 12 Hope Terrace.
- 1881, Dewar, James, Balliliesk, Dollar.
- 1884. Dick, Major J. Proudfoot.
- 1893. Dickson, Rev. John, 150 Ferry Road, Leith.
 1870. *Dickson, Thos., LL.D., Curator of
- the Historical Department H.M. General Register House, 1895, Dickson, W. Kirk, Advocate, 19 Dun-
- 1895. Dickson, W. Kirk, Advocate, 19 Dundas Street.
- 1882. Dickson, William Traquair, W.S., 11 Hill Street.

- 1886. Dixo., John Henry, Invend.
 Poolewe.
- 1889. Dobie, George, 9 Priestfield Road.
 1877. Dobie, John Shedden, of Morishill,
- Beith.
 1887. Dodds, Rev. James, D.D., The Manse,
- Corstorphine.
- 1867. DONALDSON, JAMES, LL.D., Principal
- 1888. Donaldson, James, Sunnyside, Formby, near Liverpool.
- 1891. Donaldson, Robert, M.A., 22 Fettes Row.
- 1879. Douglas, Archibald Sholto, Birkhill Cottage, Muckart by Dollar.
- 1895. Douglas, Davib, 10 Castle Street.
 1895. Douglas, Sir George, Bart., Springwood Park, Kelso.
- 1885. Douglas, Rev. Sholto D. C., Douglas Support, Coatbridge.
- 1881.*Douglas, W. D. Robinson, Orchardton, Castle, Douglas
- 1893. Dowden, Right Rev. John, D.D., Bishop of Edinburgh, Lynn House. Gillsland Reed
- 1874. Dowell, Alexander, 13 Palmerston Place.
- 1878. Drummond, William, 4 Learmonth Terrace.
- 1895. DRUMMOND-MORAY, Capt. W. H., of Abercairney, Crieff.
- 1881. DUFF, EDWARD GORDON, Park Nook, Princes Park, Liverpool.
- 1867. DUFF, Right Hon. Sir MOUNTSTEUART ELPHINSTON GRANT, G.C.S.L., York Honse, Twickenham, London. 1891. DUFF, THOMAS GORDON, of Drummuir,
 - Keith.
- 1872. *Duke, Rev. William, D.D., St Vigeans, Arbroath, 1878. Dunbar. Archibald Hamilton.
- of Northfield, Bournemouth.

 1880. DUNCAN, JAMES DALRYMPLE, Meikle-
- wood, Stirling.

 1887. Dungan, G. S., Dunmore Villa,
- Blairgowrie, 1874. DUNCAN, Rev. JOHN, Alalie, Newburgh,
 - DUNCAN, Rev. JOHN, Abdie, Newburgh File.

- 1877. Dundas, Ralph, C.S., 16 St Andrew
- 1874. DUNLOP, Rev. JAMES MERCER, Ashbrook House, Ferry Road.
- 1892. DUNLOP, Rev. ROBERT H., Minister of Elie, Fife.
- 1893. DUNN, RICHARD II., Earlston, Berwickshire.
- 1875. Duns, John, D.D., Professor of Natural Science, New College, 14 Greenhill Place,—Cerator of Musium.
- 1895. Edgar, John, M.A., Classical Master, Royal High School, 4 Alfred Place, Newington
- Newington. 1892. Edwards, John, 4 Great Western Terrace, Glasgow.
- 1885.*ELDER, WILLIAM NICOL, M.D., 6 Torobichen Street.
- 1880. Elliot, John, of Binks, Stanley House, Nightingale Road, Southsea.
- 1889. Erskine, David C. E., yr. of Linlathen, 11 Drumshengh Gardens.
- 1895. Evans, Charles R. J., Latham Lodge, Brixton, Surrey.
- 1892. Eyre, The Most Rev. Charles, D.D., R.C. Archbishop, 6 Bowniont Gardens, Glasgow.
- 1880, *FAULDS, A. WILSON, Knockbuckle House, Beith.
- 1891. Fergus, Oswald, 27 Blythswood Sq., Glasgow,
- 1890. Perguson, Prof. John, LL.D., University, Glasgow.
- 1890. Ferguson, Rev. John, B.D., Manse of Aberdalgie, Perthshire.
 1892. Ferguson, John, Writer, Duns.
- 1880. Ferguson, Richard S., M.A., LL.M., Lowther Street, Carlisle.
- 1875. FERGUSON, ROBERT, Morton, Carlisle.
- 1872. Ferguson, William, LL.D., of Kinmundy, Mintlaw, Aberdecushire.
- venor Terrace, Glasgow. 1887. Fergusson, J. Grant, jun., of Bal-
- 1887, Fergusson, J. Grant, jun., of Baledmund, Pitlochev.
- 1875. Fergusson, Sir James B., Bart. of Spitalhaugh, West Linton.

- 1873. FINDLAY, John RITCHIE, J Rothesay
- 1892. FINDLAY, JOHN R., jun., 3 Rothesay
- Terrace.
 1889. Finlay, J. F., Bengal Civil Service.
- 1880. FINLAY, JOHN HOPE, W.S., 19 Glencairn Crescent.
- 1885. Finlay, Kirkman, of Dunlossit.
- 1875. FISHER, EDWARD, Abbotsbury, Newton Abbot, Devonshire.
- 1885. Fleming, D. Hay, 16 North Bell Street, St Andrews.
- 1888. Fleming, James, jun., Kilmory Skelmorlie, Ayrshire.
- 1895. FLEMING, JAMES STARK, Solicitor, Stirling. 1893. FLEMING, Rev. JAMES, M.A., Minister
- 1893.*Fleming, Rev. James, M.A., Minister of Kettius, 1875.*Foote, Alexander, Broomley, Mon-
- trose. 1880. Forlovo, Major-Gen. J. G. Roche, 11
- Donglas Crescent.

 1890 FORDESTER HENRY Morton Hall Lile
- erton. 1887. Foulis, James, M.D., 31 Heriot
- 1883, Fox, Charles Henry, M.D., 35 Heriot Row.
- 1862, Fraser, Alexander, Canonmills Lodge, Canonmills,
- 1886. Fraser, James L., 5 Castle Street, Inverness.
- 1891. Fraser, William N., of Findrack, Torphins, Aberdeenshire.
- 1851. Fraser, Sir William, K.C.B., LL.D., 32 Castle Street.
 1883. Fraser, Rev. William Ruxton, M.A.,
- Minister of Maryton, Montrose,
- 1884. Galbraith, Thomas L., Town-Clerk, 24 Park Terrace, Stirling.
- 1887, Gallaway, Alexander, Dirgarve House, Aberfeldy.
- 1890. Garden, Farquharson T., 4 Rubislaw Terrace, Aberdeen.
- 1891. Garson, William, W.S., 5 Albyu Place.

- 1891. Garston, John Ribton, D.L., M.A., Bragunstown, Castlebellingham, Co.
- ISS6. Gebbie, Rev. Francis, 26 Chalmers
- 1895, Gibb, Alexander, 12 Antiqua Street.
- 1877. GIBB, JOHN S., 8 Buccleuch Place. 1886, GILL, A. J. MITCHELL, of Savock.

- 1890. Gordon, Rev. Arthur, Monzievaird,
- 1881, Gordon, James, W.S., 8 East Castle
- Road, Merchiston. 1877, GORDON, Rev. ROBERT, of Free Buc-
- 1883, Gordon-Gilmour, Capt. Robert, of Craignillar, The Inch, Liberton.
- 1872. Gordon, William, M.D., 11 Mayfield
- 1889, GORDON, WILLIAM, of Tarvie, The Wynd, St Andrews.
- IS69, *Goudie, Gilbert, 39 Northumberland 1885, GOUDIE, JAMES T., Oakleigh Park,
- Nithsdale Drive, Pollokshields. 1878, Gow, James M., Union Bank, 66
- 1882, GRAHAM, JAMES MAXTONE, of Culto-
- onhey, Crieff, 1892, Graham. Robert C., Skipness.
- 1888. Grant, F. J., W.S., 42 Ann Street.
- 1882, GRAY, GEORGE, Clerk of the Peace, County Buildings, Glasgow.
- 1894, Gray-Buchanan, A. W., Parkhill,
- 1891. Green, Charles E., 8 Kilmaurs
- 1887. Greig, Andrew, C.E., Bellevue, Tay-
- 1886. Greig, T. Watson, of Glencarse,
- 1880. Grieve, Symington, 11 Lander Road.

- 1889. "Gridgen, Henry, Montpulser Local
- 1871. GRUB, Rev. GEORGE, Restor Holy
- 1883, GUNNING, His Excellency ROBERT Halliday, M.D., LL.D., 12 Addison Crescent, Kensington, London, W.
- 1878. GUTHRIE, Rev. D. K., 49 Chiny
- 1874. GUTHRIE, Rev. ROGER R. LINGARD,
- 1882. HALKETT, Sir ARTHUR, Eart, of Pit-
- 1876. Hallen, Rev. Arthur W. Cornelius. 1875. Hamilton, Right Hon. Lord, of Dalzell,
- 1891, Hamilton, James, Hatton, London
- 1886, Hart, George, Proguestor-Fiscal of
- 1882. HAY, GEORGE, The Snuggery, Ar-
- 1874. HAY, J. T., Blackhall Castle,

- wood, Brasted, Kent.
- - Street, Hampstead, London, N.W.
- 1886. Henry, David, Architect, 2 Lockbart

- Herries, William D., yr. of Spottes Hall, Dalbeattie.
- 1887. HEWISON, Rev. J. KING, The Manse, Rothesay.
- 1890. Hill, Rev. Geoffry, M.A., The Vicarage, Harnham, Salisbury.
- 1881. Hill, George W., 6 Princes Terrace, Dowanhill, Glasgow.
- Drummond, Stirling. 1874. Hope, Henry W., of Luffness, Drem,
- Haddingtonshire.
 1874.*Hokniman, Frederick John, Sarrev
- Mount, Forest Hill, London. 1892. HOUSTON, Rev. A. M. NEILL, M.A., B.D., Auchterderran.
- 1889. Howden, Charles B. A., Advocate, 25 Melville Street.
- 1886, Howden, John M., C.A., 11 Eton Terrace,
- 1861. Howe, Alexander, W.S., 17 Moray Place. 1880. Howerth, Daniel Fowler, Grafton
- Place, Ashton-under-Lyne.

 1887. "Hunt, H. Edgell, 1 Hyde Park
- Gate, London, S.W. 1872. Hunter, Col. Charles, Plas Cöch,
- Llantair P.G., Anglesea.

 1894. HUNTER, Rev. James, Fala Manse,
- Blackshiels, 1886, Hunter, Rev. Joseph, M.A., Cock-
- 1882. HUTCHESON, ALEXANDER, Architect, Herschel House, Broughty Ferry.
- Herschel House, Broughty Ferry. 1895. Hutchison, James T., of Moreland, 12
- 1871. Hutchison, John, R.S.A., 19 Manor Place.
- Place. 1891. Hutchison, Rev. John, D.D., Afton
- 1872. Hyslof, James M'Adam, M.D., Surgeon-Major, 22 Palmerston Place.
- 1891. INGLIS, ALEXANDER WOOD, Secretary, Board of Manufactures, 30 Abereromby Place,
- 1887, Inglis, Rev. W. Mason, M.A., Auchterhouse.
- 1882. INNES, CHARLES, Solicitor, Inverness.

- 1866, ARVINE, JAMES T., Architect, 167 Cromwell Road, Peterborough.
- 1884. Islas, James, St Ninians, Blairgowrie.
- 1895. Jackson, Rev. J. W., M.A., F.C. Minister, Cromdale, Strathspey.
- 1883. Jackson, Major Randle, Swordale, Evanton, Ross-shire.
- 1867. *James, Rev. John P., Lynton, Ilkley, Leeds.
- 1885. Jameson, Andrew, M.A., Sheriff of Perthshire, 14 Moray Place.
- 1891. Jameson, Andrew, Riverbank House, Newmilds, Ayrshire.
 1859.*Jamieson, George Auldjo, 37 Drum-
- sheugh Gardens. 1871.*Jamieson, James Auldjo, W.S., 14
- Buckingham Terrace.

 1892. JOHNSTON, DAVID, 24 Huntly Gardens.
- Kelvinside, Glasgow. 1849. Johnston, Thomas B., 9 Claremont
- Crescent. 1892. Johnstone, Henry, M.A., 93 Comely
- Bank Avenue. 1877. Johny, William, H.M. Inspector of Schools, Greenhead House, Govan.
- 1893, Kaye, Walter J., jun., Gosberton Hall Spalding.
- 1870.*Keltie, John S., Sceretary, Royal Geographical Society, Glendevon House, Compayne Gardens, Hampstead, London.
- 1877. Kennedy, Hugh, Redelyffe, Partick Hill, Glasgow.
 1880. Kennedy, John, M.A., 25 Abingdon
- Street, Westminster.
 1889. Kermode, Philip M. C., Advocate,
- Hillside, Ramsey, Isle of Man.
- 1893. Kerr, Rev. Cathel, M.A., F.C. Manse, McIness, Lairg.
- 1889. Kerr, Andrew William, Royal Bank House, St Andrew Square.
- 1889. Kerr, Rev. John, Durleton, Drem. 1878. King, Sir James, Part., LL.D., 115 Wellington Road, Glasgow.

- 1884, Kinloch, Sir John G. S., Bart., M.P., Kinloch House, Meigle.
- 1892, Kinross, John, Architect, A.R.S.A., 1 West Saville Terrace.
- 1887, KIRKWOOD, HENRY BRUCE, 68 Thistle
- 1882. Laing, Alexander, S.S.C., 59 Manor
- 1894. Laing, J. H. A., M.B., C.M., 11 Mel-
- 1890. Laing, James, H. W., M.A., B.Sc., M.B., C.M., 9 Tay Square, Dundee.
- 1878. *LAMB, ALEXANDER CRAWFORD, 3 Lands-
- 1884, Lamb, James H., The Latch, Brechin. 1892. Lang, James, 9 Crown Gardens,
- 1893, LANGWILL, ROBERT B., The Mause,
- 1885, LAW, THOMAS GRAVES, Librarian,
- 1894. Lawlor, Rev. Hugh Jackson, B.D.,
- 1889, Lees, The Very Rev. J. Cameron,
- 1883. Leith, Rev. William Forbes, Selkirk.
- 1873, Lindsay, Rev. Thomas M., D.D., Pro-
- 1893, Lithgow, Surgeon Maj.-Gen. S. A.,
- M.D., C.B., Superintendent of the 1881. LITTLE, ROBERT, 26 Church Row,
- Hampstead, London, W.
- 1878. Livingston, Josiah, 4 Minto Street.

- 1883. Lockhard, Rev. William, M.A., D.D.,
- 1882. LORIMER, GEORGE, 2 Abbotsford
- 1870. *LOTHIAN, The Most Honourable the Marquess of, K.T., LL.D., -
- 1873. LUMSDEN, Lt.-Col. HENRY WILLIAM,
- 1873, LUMSBEN, HUGH GORDON, of Clova,
- 1892, Macadam, Joseph H., 95 Leith
- 1875. *Macadam,
- 1887. Macadam, W. Ivison, Lecturer on Chemistry, Surgeons' Hall.
- 1882. Macandrew, Sir Henry Cockburn,
- 1885. M'Bain, James M., Banker, Arbroath. 1877. Macbeath, James Mainland, Lynn-
- 1893. MacBratne, DAVID.
- 1885, M'Call, James, 6 St John's Terrace,
- 1889. M:Cormick, Rev. Frederick H. J.,
- Ilkeston, Derbyshire, 1884, Macdonald, Alexander, 9 Mont.
- gomery Drive, Kelvinside, Glasgow. 1885, Macdonald, Coll Reginald, M.D.,

- 1890, Macdonald.

- 1890. *Macdonald, John Matheson, 95 Harley Street, London, W.
- 1882. MACDONALD, KENNETH, Town Clerk of
- 1890, Macdonald, William Rae, 1 Fortes
- 1872. *M'Dowall, Thomas W., M.D., East
- 1860. Macewen, John Cochrane, Trafford
- 1892, M'EWEN, Rev. John, Dyke, Forres. 1862, *Macgibbon, David, Architect, 65
- 1878. Macgillivray, William, W.S., 32
- 1885, McGlashan, Stewart, Sculptor, 5
- 1889. M'HARDY, Lt.-Col. A. B., 3 Ravelston
- 1876. *MACKAY, ENEAS J. G., LL.D.,
- 1890. Mackay, James, Trowle, Trowbridge. 1888, Mackay, J. F., W.S., Whitehouse,
- 1892. Mackay, Thomas A., Banker, 14
- 1882. Mackay, William, Solicitor, Inver-
- ness. 1852.*Mackenzie, Alexander Kincaid, 19
- 1887. MACKENZIE, DAVID J., Sheriff-Substitute, Wick.
- 1872. Mackenzie, Res. James B., Kenmore,
- IS91. *Mackenzie, James, 2 Rillbank Cres-
- 1882. Mackenzie, R. W. R., Stormontfield, 1870, *Mackenzie, Thomas, Sheriff-Substi-
- 1876. M'Kie, Thomas, Advocate, I Gloucester
- 1888, Mackinlay, J. M., M.A., 4 Westbonrue Gardens, Glasgow.

- 1888. Mackinnon, L., jun., Advocate, 261
- 1891. Mackinnon, Sir W. A., K.C.B., 28
- 1864. *MACKINTOSH, CHARLES FRASER, of Drummond, Lochardill, Inverness.
- IS93. Mackintosh, William Fyfe, Solicitor, Maulesbank House, Arbroath, IS65. *Mackison, William, Architect, 8 Con-
- 1878. MACLAGAN, ROBERT CRAIG, M.D., 5
- Coates Crescent. 1885. MacLehose, James J., M.A., 61 St
- Vincent Street, Glasgow. 1893. Macleod. John N., of Kintarbert,
- Glensadell, Argyllshire. 1890. Macleod, Reginald, C.B., Queen's
- in Exchequer,- Vice-President.
- 1875. Macmath, William, 16 St Andrew
- Somare. 1879, Macmillan, Alexander, M.A., 29
- Bedford Street, Covent Garden, 1884. Macmillan, Rev. Hugh, D.D., LL.D.,
- 1855. *Macnab, John Munro, Killin House,
- 1889. Macnaughton, Allan, M.D., Acha-
- buie House, Taynuilt, 1874. M'NEILL, MALCOLM, Secretary of the
- Board of Supervision, 53 Manor 1882, Macthail, Rev. J. C., D.D., Pilrig
- Kingussie. 1886, Mactherson, Architect,
- 7 Young Street. 1895, Mactherson, Capt James F., United
- 1878. Macpherson, Norman, LL.D., 2
- 1882. MACRITCHIE, DAVID, C.A., 4 Archibald
- 1878, *Makellar, Rev. William, 8 Charlotte

- 1872.*Marshall, David, Lochleven Place, Kinross.
 1885. Marshall, William Hunter, W.S.,
- 1885. Marshall, William Hunter, W.S., 25 Heriot Row.
- 1891. Martin, Francis, 207 Bath Street, Glasgow.
 1886. Martin, Thomas Johnstone, Advo-
- cate, 13 Shandwick Place. 1873.*Martine, William, M.D., Hadding-
- ton.

 1861.*Marwick, Sir James David, LL.D.,
- City Clerk, City Chambers, Glasgow. 1886. Masson, Prof. David, LL.D., Historiographer for Scotland, 34 Melville
- riographer for Scotland, 34 Melville Street. 1892. Matheson, Augustus A., M.D., 41
- 1884. MAXWELL, Sir HERBERT EUSTACE, Bart., M.P., of Monreith, Wigtownshire.
- 1892.*Maxwell, Sir John S., Bart., of Pollok, Pollokshields.
- 1891. Maxwell, Wellwood, of Kirkennau, Dalbeattie.
- MAXWELL, WELLWOOD H., of Munches Dalbeattie.
- 1887. MAXWELL, WILLIAM, of Donavourd, Pitlochry.
 1889. MAYHEW, Rev. S. M., M.A., Vicar of St. Paul's, St. Paul's Vicarage, 83
- New Kent Road, London, S.E.
 1887, Mearns, Rev. D. G., yr. of Disblair,
 R.D. Manne, of Ohym, Alexandra
 - B.D., Manse of Oyne, Aberdeenshire. ISS7, Meldrum, Rev. A., M.A., Logicrait,
- Ballinluig. 1887. Melville, The Right Hou, Viscount.
- Melville Castle, Lasswade.

 1873. *Melvin, James, 43 Drumsheugh
- Gardens, 1892, Menzies, D. P., 257 St Vincent Street,
- Glasgow.
- ingtower, Balcraig, Scone. 1885. Metcalfe, Rev. W. M., D.D., South
- Manse, Paisley. 1882. Millar, Alexander H., Rosslynn
- 1882. Millar, Alexander H., Rosslynn House, Clepington Road, Dundee.

- 1876. MILLAR, WILLIAM WHITE, S.S.C., 16 Regent Terrace.
- 1873. MILLER, GEORGE ANDERSON, W.S., Knowchead, Perth.
 - 1889. MILLER, HUGH, Geological Survey, George Fourth Bridge.
 - 1866.*Miller, Peter, Dalmeny Lodge, Craiglockhart.
 - rare.
 - 1890. Milne, Rev. Andrew Jamieson, LL.D., Fyvie, Aberdeenshire.
 - 1867.*MITCHELL, Sir ARTHUR, K.C.B., M.D., LL.D., Commissioner in Lunacy, 34 Drummond Place,—Forcign Secreture.
- 1886. MITCHELL, A. J., Advocate, C
- 1888. Mitchell, Charles, C.E., 34 St Andrew Square.
- 1884. MITCHELL, HUGH, Solicitor, Pitlochry.
- 1890. MITCHELL, JOHN OSWALD, B.A., LL.D., 67 East Howard Street, Glas-
- 1886.*Mitchell, Richard Blunt, of Polmood, 45 Albany Street.
- 1890. MITCHELL, SYDNEY, Architect, 34
- 1890. Moncrieff, Col. Sir Alexander, K.C.B., Bandirran, Perth.
- 1851, *Montgomery, Sir Graham G., Bart., Stolio Castle, Perblesshire.
- 1882, Morris, James Archibald, Architect, 51 Sandgate, Ayr.
- Morrison, Hew, Librarian, Edinburgh Public Library.
- 1887.*Moubray, John J., Naemoor, Rambling Bridge.
- Mudie, James, Craiggowan, Broughty Ferry.
- 1894. Muir, John, Galston, Ayrshire.
- 1877. MURRHEAD, ANDREW. 9 Marrayfield Grand Avenue.
- 1889. Muirhead, George, Mains of Haddo, Aberdeenshire.
- Munro, Alexander M., Accountant, Town House, Aberdeen.
- 1874 MI NRO, CHARLES, IS George Street.

- 1879. *Munbo, Robert, M.A., M.D., 48 Manor Place, — Swretary. 1884. Munbo, Rev. Robert, M.A., B.D.,
- 1884. MUNRO, Rev. ROBERT, M.A., B.D.
 Old Kilpatrick, Glasgow.
- 1890. Munro, Rev. Whiliam, Collegiate School, Newport, Monmouthshire.
 1885. Murdoch, Rev. A. D., All Saints' Par-
- sonage, 26 Brougham Street.
 1879. MURDOCH, JAMES BARCLAY, Capeling,
 Mearns, Reufrewshire.
- 1878. *Murray, David, M.A., LL.D., 169 West George Street, Glasgow.
- 1887. MURRAY, JOHN, Ph.D., LL.D., of the "Challenger" Expedition, 45 Frederick Street
- 1884. Murray, Patrick, W.S., 12 Aun Street.
- 1885. NAISMITH, ROBERT, Stonehouse. 1891. *Neilson, George, 34 Granby Terrace,
- Glasgow.
 1887. Newton, R. N. H., 3 Eglinton
- 1889. NICHOLSON, J. SHIELD, M.A., D.Sc., Professor of Political Economy, &c., Eden Losige, Newbattle Terrace.
- 1861. Nicol, Erskine, R.S.A., The Dell, Felt-
- ham, Middlesex. 1875. Nicot, George H., Tay Beach Cottage, West Ferry, Dundee.
- 1892. Nicolson, Arthur Badenach, jun., Glenbervie House, Fordoun.
- 1885. Nicolson, David, M.D., Broadmoor, Crowthorne, Berks.
- 1895. Nisbet, Hamieton More, University Pall, Ramsay Lodge.
- NIVEN, ALEXANDER T., C.A., 28 Fountainball Road.
- 1895. Nixon, William, Solicitor, 2 Dudhope Place, Dundee.
- 1891. Noble, Robert, Herouhill, Hawick. 1867. Northemberland, His Grace The Duke of, Alnwick Castle, Alnwick.
- 1877. OGHAVIE, WHALIAM M., Bank House, Lochee, Dundee.

- 1890. OGILVY, HENRY J. NISBET-HAMILTON, Biel, Prestonkirk.
- 1885. Parker, Charles Arundel, M.D., Gosforth, Cumberland.
- 1883. Parlane, James, Appleby Lodge, Rusholme, Manchester.
- 1880. Paterson, Alexander, M.D., Fernfield, Bridge of Allan.
 1859.*Paton, Sir Joseph Noel, R.S.A.,
- LL.D., 33 George Square.

 1891. Paton, Victor Albert Noel, W.S.,
- 22 Young Street. 1870. Patrick, R. W. Cochran, LL.D.,
- Woodside, Beith. 1880. Patterson, James K., Ph.D., Presi-
- dent of the State College of Kentucky, Lexington, U.S.A.
- 1871. *Padl, George M., W.S., 16 St Andrew Square.
- 1879. Paul, J. Balfour, Advocate, Lyon King of Arms, 30 Heriot Row.
- 1882. Paul, Rev. Robert, F.C. Manse, Dollar, 1874. PANTON, WILMAM, 62 Fountainhall
- Road. 1891. Peace, Thomas Smith, Architect,
- Junction Road, Kirkwall, 1879. Peddie, J. M. Dick, Architect, 3 South
- 1893. PEEL, FRANK, Walkley Cottage, Heck-
- mondwike. 1855. Pender, Sir John, K.C.M.G., 18 Arlington Street, London.
- 1889. Petrie, Geo., 52 Nethergate, Dundee.
- Bank, Hunter Square. 1885, PIRRIE, ROBERT, 9 Buckingham Ter-
- 1885, *Pirrie, Robert, 9 Buckingham Terrace, Hillhead, Glasgow.
 1883, Pitt-Rivers, Lieut.-General A. H. L.
- Fox, D.C.L., Inspector of Ancient Monuments, Rushmore, Salisbury.
- Prichard, Rev. Hugh, M.A., Dinam, Gaerwen, Anglesea.
- 1860, PRIMROSE, Hon. BOUVERIE F., C.B., 22 Moray Place.

- 1878. PRINGLE, JOHN, M.D., Dep.-Inspector-General of Hospitals, 13 Abbotsford Park.
- 1886. PULLAR, ALFRED, M.D., 111 Denmark Hill, London, S.E.
- 1889. Purves, Alexander P., W.S., Esk Tower, Lasswade.
- 1865. RAINY, ROBERT, D.D., Principal and Professor of Theology and Church History, New College, Edinburgh, 23 Douglas Crescent.
- 1873, RAMPINI, CHARLES, LL.D., Sheriff-Substitute, Springfield House, Elgin,
- 1891. RAMSAY, WILLIAM, of Bowland, Stow. 1879. RANKINE, JOHN, Professor of Scots Law,
- University of Edinburgh, 23 Ainslie Place, 1874, Rattray, James Clerk, M.D., 61
- Grauge Loan. 1893. Read, Charles Hercules, British
- Museum, London. 1882. Reid, Alexander George, Solicitor,
- Auchterarder.

 1888, Reid. Sir George, P.R.S.A., LL.D.,
- 22 Royal Terrace.
 1891. RHIND, W. BIRNIE, A.R.S.A.,
 Sculptor, St Helen's, Cambridge
- 1891. RICHARDS, Rev. WALTER J. B., D.D., St Charles's College, Notting Hill, London.
- 1880. RICHARDSON, ADAM B., 27 Manor Place,—Curator of Coins.
- 1892. RICHMOND, WILLIAM, 17 Millerfield Place.
- 1886, RITCHIE, CHARLES, S.S.C., 20 Hill Street. 1883, Roberts, Andrew, St Agnes, Giffbock,
- Renfrewshire. 1885, Robertson, Charles, Redfern, Colin-
- ton Road. 1887. Robertson, D. Argyll, M.D., President of the Royal College of Surgeons,
- 18 Charlotte Square. 1893. Robertson, David, 12 Windsor Circus,
 - Glasgow.
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- Robertson, George, Keeper of the Abbey, Dunfermline.
- Robertson, J. Stewart, Edradynate, Ballinluig, Perthshire.
- 1886. ROBERTSON, ROBERT, Albion Villa, Dollar.
- 1889. Robertson, Thomas S., Architect,
- 1879. ROBERTSON, W. W., Architect, H.M. Board of Works, Parliament Square.
- 1865. ROBINSON, JOHN RYLEY, LL.D., 47 Westgate, Dewsbury.
- Robson, William, S.S.C., Marchholm, Gill-Jand Road.
- 1854. Roger, James C., Friais Watch, Walthamstow, Essex.
- 1871. Rollo, Right Hon. Lord, Duncrub House, Dunning. 1874. Romanes. Robert, Harryburn,
- Lander.

 1872, ROSEBERY, Right Hon. The Earl of.
- 1872. ROSEBERY, Right Ron. The Earl of LL.D., Dalmeny Park.
 1876. Ross, Alexander, LL.D., Architect.
- Queensgate Chambers, Inverness. 1881. Ross, Joseph Carne, M.D., Parsonage
- Nook, Withington, Manchester. 1891, Ross, Thomas, Architect, 14 Saxe Coburg Place.
- 1867.*Ross, Rev. WILLIAM, Cowcaddens Free Church, Cliabhan House, Hill Street, Garnethill, Glasgow.
- 1894. Sandeman, Colonel George Glas, of Fonab. Pitlochry.
- 1891. Saunders, Frederick A., M.D., Graham's Town, S. Africa.
- 1889. Scott, Alexander, Ashbank, Newport, Fife.
 1892. Scott, James, J.P., Rock Knowe,
- 1892, Scott, James, J.P., Rock Knowe, Tayport.
- 1895. Scott, John, C.B., Hawkhill, Largs, Ayrshire.
 1893. Scott-Moncrieff, Sir Colin, Under-
- Secretary for Scotland, Dover House, Loudon. 1893. Scott-Moncrieff, David, W.S., 24
 - George Square.

- 1889. SCOTT-MONCRIEFF, W. G., Sheriff-Substitute of Stirlingshire, Weedingshall, Polmont, Stirlingshire.
 1881. SEMPLE, Andrew, M.D., United
- 1881. Semple, Andrew, M.D., Uni Service Club, Queen Street.
- 1848, *Seron, George, M.A., Advocate, Ayton House, Abernethy, Perthshire.
- 1895. Seton, Major A. D. of Mounie, 86 Buckingham Terrace.
- 1869.*Shand, Right Hon. Lord, 32 Bryanston Square, London.
- 1864. Shand, Robert, 1 Charlotte Pl., Perth. 1892. Shiells, Henry K., C.A., 141 George
- 1879. Sibbald, John, M.D., Commissioner in Lunacy, 3 St Margaret's Road.
- 1879. Sibbald, John Edward, 8 Ettrick Road.
- 1871. "SIMPSON, ALEX. R., M.D., Professor of Midwitery, University of Edinburgh, 52 Queen Street.
- 1890. Simpson, H. F. Morland, M. A., Rector of the Grammar School, Aberdeen.
- 1891. Simpson, John, M.D., Springfield, Inverness.
- 1880.*SIMPSON, ROBERT R., W.S., 8 Bruntsfield Crescent.
 1884. SIMPSON. Sir Walter G., Bart.,
- University Club.

 1878, Skeete, Horace, Solicitor, 42 Tay
- Street, Perth.

 1889, Skelton, J. H., 2 Vine Terrace, Thorn-
- ton Road, Bradford, Yorkshire.
- 1876. *SKINNER, WILLIAM, W.S., 35 George Souare.
- 1877. SKIRVING, ABAM, of Croys, Dalbeattie. 1879. SMAIL, JAMES, Secretary, Commercial
- Bank of Scotland, 7 Bruntsfield Crescent. 1880. SMALL, J. W., Architect, 20 Forth
- Street, Stirling.
- 1874. SMART, JOHN, R.S.A., 13 Brumswick Street, Hillside.
- 1891. SMITH, CECIL R. GILLIES, 18 Atholl Crescent.
 1892. SMITH, G. GREGORY, 9 Warrender
- Park Crescent. 1893. Smith, George, S.S.C., 21 St Andrew
- 1893. Smith, George, S.S.C., 21 St Andrew Square.

- 1874. SMITH, J. IRVINE, 20 Great King Street. 1877. SMITH, JAMES T., Duloch, Inver-
- 1889. SMITH, ROBERT, Solicitor, 9 Ward Road, Dundee.
- 1891. *SMITH, W. M'COMBIE, Persie, Blair-
- 1886. Smith, Maj.-Gen. Sir R. Murdoch. K.C.M.G., Director, Edinburgh Museum of Science and Art. 1888. Smith, Thomas, 18 Moray Place.
- 1890. SMITH, THOMAS HENRY, Corrie Lodge,
- 1892. *Smythe, Colonel David M., Methven Castle, Perth.
- 1892. Somerville, Rev. J. E., B.D., Villa
- Jeanne, Mentone, France. 1893. Sorley, James, 18 Magdala Crescent.
- 1882 "Southesk, Right Hon. The Earl of, K.T., LL.D., Kinnaird Castle, Brechin. 1890. "Spence, Charles James, South
- Preston Lodge, North Shields. 1882. Sprague, Thomas B., M.A., LL.D.
- 1882. Sprague, Thomas B., M.A., LL.D. 29 Buckingham Terrace. 1872. *Stair, Right Hon. The Earl of, K.T..
- Lochinch, Wigtownshire. 1875. Starke, James G.H., M.A., Advocate.
- Troqueer Holm, Dumfries. 1885, Steedman, Thomas, Clydesdale Bank,
- Kinross. 1874. *Steel, Lt.-Col. G. Mure, 33 North-
- 1891. Steele, William, 12 Wendover Cres-
- cent, Mount Florida, Glasgow. 1889. Steuart, John, Ballechin, Tullypowrie. Perthshire.
- 1887. STEVENS, Ven. C. ELLIS, LL.D., D.C.L. Archdeacon of Brooklyn, 2217 Spruce Street, Philadelphia.
- 1872. Stevenson, Alexander Shannan, Oatlands Mere, Weybridge, Surrey.
- 1895. Stevenson, John Horne, M.A., Advocate, 10 Albyn Place.
- 1867. *Stevenson, John J., Architect, 4 Porchester Gardens, London, W.
- 1887. STEVENSON, Rev. W., M.A., Achtertool Manse, Kirkcaldy.
- 1888. Stewart, Maj.-Gen. Hon. A., Corsbie, Newton Stewart.

- 1876. STEWART, Rev. ALEXANDER, LL.D., Manse of Ballachulish, Nether Lochaber.
 1879. STEWART, CHARLES POYNTZ, Chasfield
- Park, Stevenage. 1893. Stewart, Donald W., 151 Brunts-
- 1893. Stewart, Donald W., 151 Bruntsfield Place.
 1871. Stewart, Maj.-Gen. J. H. M. Shaw,
- R.E., 61 Laneaster Gate, London, W. 1885. Stewart, Robert King, Mardostonn
- Castle, Newmains, Lanarkshire.

 1881. Stewart, Sir Thomas Grainger, M.D.,
 Professor of Practice of Physic and
- Professor of Practice of Physic and Clinical Medicine, 19 Charlotte Square. 1894. Stewart, Walter, 1 Murrayfield
- Gardens. 1880. *Stirling, Capt. Patrick, Kippenross, Dunblane.
- 1882. Story, Rev. R. Herbert, D.D., Professor of Ecclesiastical History, University of Glasgow
- 1883. Strachan, John, M.D., Gladstone Terrace, Dollar.
- 1889. STRATHERN, ROBERT, W.S., 13 Eglinton Crescent
- 1867. *Strathmore, Right Hon. The Earl of, Glamis Castle, Forfarshire.
- 1884. Strong, W. R., C.A., Glasgow.
- 1891. STRUTHERS, JOHN. M.D., LL.D., 24
- 1894. STUART, ALEXANDER, Melville House, Portobello.
 1883. STUART, GEORGE BALLINGAL. M.B..
- 1883, STUART, GEORGE BALLINGAL, M.B., Surgeon-Major, Grenadier Guards, 7 Carlton Street, Edinburgh.
- Stuart, J. A. Erskine, Surgeon, Heckmondwike, Yorkshire.
- 1895. STUART, MORTON GRAY, 2 Belford Park. 1882. STURROCK, PETER, London Road, Kil-
- IS76, SUTHERLAND, Rev. GEORGE, The Parsonage, Portsoy.
- 1887. SUTHERLAND, J. B., S.S.C., 10 Windson Street.
- 1884. Swallow, Rev. H. J., M.A., Hawthorne Rectory, Sunderland.
- 1863. SWITHINBANK, GEORGE E., LL.D., 1 New Square, Lincoln's Inn, Loudon, W.C.

- 1884. Tair, Girage, 71 Lothian Road. 1890, Tait. G. Lawson, M.D., LL.D.,
- The Crescent, Birmingham. 1892.*Taylor, J. Pringle, W.S., 19 Young
- Street, 1884. Temple, Rev. William, M.A., D.D., St
- Margaret's, Forgue, Huntly.
- 1870. Tennant, Sir Charles, Bart., The Glen, Innerleithen.
 1874. Thoms, George Hunter MacThomas.
- 1874. THOMS, GEORGE HUNTER MACTHOMAS, Advocate, Sheriff of Caithness, Orkney, and Shetland, 13 Charlotte Sq.
- 1888. THOMSON, Rev. A., D.D., Bible House, Constantinople.
 1885. THOMSON, ALEXANDER, Trinity Grove.
- Trinity Road. 1886, Thomson, C. W. Wodrow, C.A., 16
- Lennox Street. 1894, Thomson, Edward Douglas, Chief
- Clerk, General Post Office, 50 Queen Street. 1892. Thomson, Rev. John, The Parsonage.
- Rosslyn.
- George Street.
- 1892, *Thomson, Mitchell, 6 Charlotte Sq. 1875, *Thomson, Robert, LLD., 8 Sciennes
- 1893. THURBURN, Lient.-Col. F. A. V., Kirkfell, Highland Road, Upper Norwood, London, S. E.
- 1891. Thlebrook, Rev. W. J., M.A., Strath-Tay Parsonage, Grantully, Ballinbuig.
- 1895. Tod, Henry, jr., W.S., 23 Lennox St. 1892. Torphichen, Right Hon. Lord.
- Calder House, Mid Calder. 1889. TRAILL, JOHN, of Woodwick, S3
- North Street, St Andrews. 1865.*Troup, William, Eastwell, Bridge of
- 1877. TUKE, JOHN BATTY, M.D., 20 Charlotte
- 1887. TURNBULL, WM. J., 16 Grange Terrace. 1880. TURNER, FREDERICK J., Mansfield
- ISSO, TURNER, FREDERICK J., Mansfield Woodheuse, Mansfield, Notts.
- 1865.*TURNER, Sir WILLIAM, M.B., LL.D., D.C.L., Professor of Anatomy, University of Edinburgh, 6 Eton Terrace.

- TWEEDDALE, The Most Honourable The Marquess of, Yester House, Haddington.
- 1878. URQUHART, JAMES, 15 Danube Street. 1882. *USHER, Rev. W. NEVILLE, Spring-hill House, Lincoln.
- 1895. Vallance, David J., Curator, Museum of Science and Art, Chambers Street.
- of Science and Art, Chambers Street. 1862, *Veitch, George Seton, Bank of Scotland, Paisley.
- 1874. Walker, Alexander, LL.D., 64 Hamilton Place, Aberdeen.
- 1879. Walker, James, Limefield, West
- 1871.*WALKER, PETER GEDDES, 2 Airlie Place, Dundee.
 1881. WALKER, R. C., S.S.C., Wingate Place,
- Newport, Fife. 1861. *Walker, Sir William Stuart, K. C. B.,
- of Bowland, 5 Manor Place. 1879. Wallace, Thomas D., Rector of High
- 1879. WALLACE, THOMAS D., Rector of High School, Inverness. 1888. Wannop, Rev. Canon, M.A., Had-
- dington.
- Waterston, George, 56 Hanover Street.
- 1891. Watson, Rev. Alexander Duff, B.D., F.C. Minister, Castle Kennedy.
- IS90.*WATSON, D. M., Bullionfield, Dundee. 1895.*WATSON, ROBERT F., Briery Yards, Hawick.
- 1884. Watson, W. L., Ayton House, Aber-
- nethy, Perthshire, 1893. Watson, William, Dep.-Surgeon-

General, Waverley House, Slateford.

- 1886. Watt, Rev. J. B. A., The Manse, Cadder, Bishopriggs.
- 1887. Watt, James Craeb, Advocate, 46 Heriot Row.
- 1879. WEDDERBURN, J. R. M., M.A., W.S., 32 Albany Street.
- 1877. Weir, Hugh F., of Kirkhall, Ardrossan.
- 1893. Weld-French, A. D., 160 State Street, Boston, Mass., U.S.A.

- 1877. Welsh, John, Moredon, Liberton.
- 1872.*WEMYSS AND MARCH, Right Hon. The Earl of, LL.D., Gosford, Longniddry.
- 1880. Wenley, James Adams, 5 Drumsheugh Gardens.
- 1884. White, Cecil, 23 Drammond Place.
- 1869. WHITE, Col. THOMAS PILKINGTON, R.E., 1 Castle Terrace.
- 1885. WHITELAW, DAVID, Eskhill, luveresk.
- 1868. WHYTE, ROBERT, Procurator-Fiscal, Forfar,
- 1854. WILLIAMS, FREDERICK BESSANT, 3 Essex Grove, Upper Norwood.
- 1895. WILLIAMS, Rev. GEORGE, Minister of Norrieston Free Church, Thornhill, Stirling.
- 1871. WILLIAMS, WILLIAM EDWARD, Architect, 46 Leicester Square, London.
- 1884. WILLIAMSON, Rev. ALEXANDER, 2 Minto Street
- 1887. WILLIAMSON, GEORGE, 37 Newton Street, Finnart, Greenock.
- 1888. Wilson, Rev. W. H., The Parsonage,
- 1883. Wood, Thos. A. Douglas, Viewforth,
- Brunstane Road, Joppa. 1875. WOODBURN, J., M.A., Drumgrange, Patna, Ayr.
- 1878. WOODWARD, Rev. John, LL.D., Melville Honse, Montrose.
- 1892. *Wordie, John, 42 Montgomery Drive, Glasgow.
- 1884. WRIGHT, JOHN P., W.S., 6 Grosvenor Crescent.
- 1867. WRIGHT, Rev. ROBERT, D.D., Woodlands, Spylaw Road.
- 1889. WYON, ALLAN, 2 Langham Chambers, Portland Place, London, W.
- Yeats, William, Advocate, Aquharney, Beaconhill, Murtle by Aberdeen.
- 1889. Young, Hugh W., of Burghead. 27 Lauder Road.
- 1881. Young, John William, W.S., 22 Royal Circus.
 1891. Young, William Laurence, Belvi-
- dere, Auchterarder.
- 1878, YOUNGER, ROBERT, 15 Carlton Terrace.

LIST OF HONORARY MEMBERS

OF THE

SOCIETY OF ANTIQUARIES OF SCOTLAND,

NOVEMBER 30, 1895.

[According to the Laws, the number is limited to TWENTY-FIVE.]

1862.

HIS ROYAL HIGHNESS ALBERT EDWARD, PRINCE OF WALES.

1865.

Sir Henry Dryden, Bart., Canons Ashby, Byfield, Northamptonshire.

1874

Sir John Lubbock, Bart., LL.D., D.C.L., M.P., High Elms, Farmborough, Kent.

Sir John Evans, K.C.B., D.C.L., LL.D., &c., Nashmills, Hemel-Hempstead.

1. --

5 Rev. James Raine, M.A., D.C.L., Chancellor and Canon Residentiary of York.

1879

Rev. Canon William Greenwell, M.A., D.C.L., Durham. Sir Augustus Wollaston Franks, K.C.B., British Museum.

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1881.

Professor Olaf Rygh, Christiania. Professor Rudolf Virchow, M.D., LL.D., Berlin.

1885.

10 Dr Hans Hildebrand, Royal Antiquary of Sweden. Dr Ernest Chantre, The Museum, Lyons.

1892

WILLIAM FRAZER, F.R.C.S.I., 20 Harcourt Street, Dublin.
WHITLEY STOKES, LL.D., C.S.I., 15 Grenville Place, Cornwall Gardens,
London.

Professor Luigi Pigorini, Director of the Royal Archæological Museum, Rome.

15 ALEXANDRE BERTRAND, Conservateur du Musée des Antiquités Nationales, Saint Germain-en-Laye, Seine et Oise, France.

Professor Gabriel de Mortillet, Ecole d'Anthropologie, Saint Germainen-Laye, Seine et Oise, France.

Dr Henry C. Lea, 2000 Walnut Street, Philadelphia.

LIST OF THE LADY ASSOCIATES

OF THE

SOCIETY OF ANTIQUARIES OF SCOTLAND,

NOVEMBER 30, 1895.

[According to the Laws, the number is limited to TWENTY-FIVE.]

1870.

The Lady A. A. John Scott of Spottiswoode, Berwickshire.

1871.

Miss C. Maclagan, Ravenscroft, Stirling.

1873.

The Baroness Burdett Coutts.

1874.

Lady Dunbar of Duffus, Elginshire.
5 Lady Clark, Tillypronie, Aberdeenshire.
Miss Margaret M. Stokes, Dublin.

1883.

Mrs Ramsay, Kildalton, Islay.

1888.

The Right Hon. The Countess of Selkirk.

1890.

Mrs P. H. Chalmers of Avochic.

1891.

10 Mrs Annie Chambers Dowie, Edinburgh.

1894.

Miss Emma Swann, Walton Manor, Oxford

1895.

Miss II. J. M. Russell of Ashiesteck,

Miss AMY FRANCES YULE of Tarradale, Rossishire.

PROCEEDINGS

OF THE

SOCIETY OF ANTIQUARIES OF SCOTLAND.

HUNDRED AND FIFTEENTH SESSION, 1894-95.

Anniversary Meeting, 30th November 1894.

JOHN RITCHIE FINDLAY in the Chair.

A Ballot having been taken, the following Gentlemen were duly elected Fellows:—

Capt. W. H. Drumiond-Moray of Abereairney.
Henry T. Doxaldeon, Solicitor, Nairn.
John Edgar, M.A., Classical Master, Royal High School.
Charles R. J. Evans, Latham Lodge, Brixton, Surrey.
James Stark Flexing, Solicitor, Stirling.
Henry Ton, Junior, W.S., 23 Lennox Street.
David J. Vallance, Curator, Edinburgh Museum of Science and Art

The Secretary reported the election by the Council of

Miss Emma Swann, Walton Manor, Oxford,

as a Lady Associate of the Society.

VOL. XXVIII.

The Office-Bearers for the ensuing year were elected as follows:-

Patron.

HER MAJESTY THE QUEEN.

President.

THE MOST HON. THE MARQUESS OF LOTHIAN, K.T., LL.D.

R. Rowand Anderson, LLD. Reginald MacLeod. James Macdonald, LLD.

The Hon, Hew Dalrymple. Sir George Reid, Representing the Board of Trustees. LL.D., P.R.S.A., ALEXANDER J. S. BROOK, John Ritchie Find-JOHN TAYLOR BROWN. The Hon John Arerchomby. Charles J. Guthrie. J. Balfour Paul. Maj.-Gen. Sir R. MURDOCH SMITH, K.C.M.G., R.E.

Secretaries

David Christison, M.D. Robert Munro, M.A., M.D. Joseph Anderson, Ll.D., Assistant Secretary. Sir Arthur Mitchell, K.C.B., M.D., LL.D., \(\) Secretaries for Foreign Correspondence. THOMAS GRAVES LAW,

James Henry Cunningham, 4 Magdala Crescent.

Curators of the Museum. ROBERT CARFRAE. Professor Duns, D.D.

Curator of Coins. Adam B. Richardson.

Librarian. JAMES CURLE, Jun. The following list of the names of members deceased, -ince the date of the last Annual Meeting, was read by the Secretary:--

Honorary Member.	r.	Iceted
COMM. GIOVANNI BATTISTA DE ROSSI, ROIRE,		1885
Lady Associate.		
Mrs Morrison Duncan of Naughton,		1890
Fellows.		
Alexander Boax Armitage, 14 Dick Place,		1885
Archibald Broun, P.C.S., 10 Inverleith Row,		1877
* 0		1876
John Christison, W.S., 40 Moray Place, .		1890
Robert Clark, 42 Hanover Street, .		1867
Edmund Goldsmid, 10 Fettes Row,		1885
J. Miller Gray, Curator of National Portrait Galle	TV.	1884
7 377		1880
4 11 (312) (31.1)		1867
Andrew Heiton, Architect, Perth,		1871
John Fowler Hislop, Castlepark, Prestonpans,		1889
WILLIAM HUNTER, Waverley Cottage, Portobello,		1867
Robert Hutchison, Brodick, Arran,		1880
Robert Kirke, Greenmount, Burntisland, .		1881
William Mackean, Provost of Paisley,		1882
Rev. Alex. Mackenzie, D.D., Westerlea, Nairn,		1882
Charles Mitchell, Kintrockat, Brechin, .		1880
ARTHUR D. MORICE, Advocate, Aberdeen, .		1868
David E. Outram, 16 Grosvenor Terrace, Glasgow,		1881
Rev. W. Peters, Minister of Kinross,		1878
J. GUTHRIE SMITH, Mugdock Castle, Milngavie,		1882
George Steuart, 3 Forbes Road,		1887
Charles Stewart of Tigh'n Duin, Killin, .		1883
William S. Thomson-Singlair of Dunbeath,		1887
75 M 17 M 21 7 7 27 3		1888
Prof. John Veitch, LLD., The University, Glasgot	W.,	1873
Edwin Weston-Bell, Belmont, Dundee, .		1891

The meeting resolved to record their sense of the loss the Society had sustained in the deaths of these members. The Treasurer read the Abstract of the Society's funds, which was ordered to be printed and circulated among the Fellows.

The Secretary read the Annual Report to the Board of Trustees, approved by the Council, and ordered to be forwarded to the Board for transmission to the Lords of H.M. Treasury, as follows:—

Annual Reform to the Honourable the Board of Trustees for Manufactures in Scotland by the Society of Antiquaries of Scotland, with reference to the Scottish National Museum of Antiquities under their charge, for the year ending 30th September 1894:—

During the past year the Museum has been open to the public as formerly, and has been visited by 25,149 persons, of whom 23,864 were visitors on free days, and 1285 on pay days.

The number of objects of antiquity added to the Museum during the year has been 289 by donation and 122 by purchase; while 108 volumes of books and pamphlets have been added to the Library by donation and 13 by purchase,

D. Christison, Secretary.

Monday, 10th December 1894.

The Hox, JOHN ABERCROMBY in the Chair,

A Ballot having been taken, the following Gentlemen were duly elected Fellows:—

Charles Butler, D.L., 3 Connaught Place, London.
Major Alexander D. Seton of Mounic, 36 Buckingham Terrace.

The following Donations to the Museum and Library were laid on the table, and thanks voted to the Donors:—

(1) By Miss Agnes C. Howden, St Lawrence House, Haddington.

Perforated Stone Hammer of peculiar form, well polished, found by the late Robert Howden on the farm of Longniddry about 1800. This hammer has been already described and figured in the previous volume of the *Proceedings*, when it was exhibited by Miss Howden at the meeting of May 14th, 1894.

(2) By John Nicolson, Nybster, Caithness.

Cast of a perforated Stone Axe-Hammer (fig. 1), found in a cairn at Breckigo, Thrumster, Caithness. The hammer itself is of grey granite, 5 inches in length, 24 inches in width at the rounded end, 1 inch at its narrowest part near the middle, and 2 inches across the face at the cutting end, the thickness in the middle being 1½ inches. The shaft hole, which has been pierced from both sides through the narrowest part of the implement, is I inch in width at the outside, on each side narrowing to 3 inch in the centre. This axe-hammer was found about the year 1848 in demolishing a very large cairn at Breckigo, which was entirely removed for building material, with the exception of some of the large earthfast stones of the chamber, which now stand alone in the field. At the same time there was found in the debris of the same cairn a very remarkable Stone Cup (fig. 2), which is now also in the Muscum. It is of a hard, coarse-grained sandstone, somewhat globular in shape, and vertically ribbed or fluted on the exterior surface, the flutings running down to a circularly ornamented space on the bottom. It is $3\frac{1}{4}$ inches



Fig. 1. Perforated Stone Hammer of Granite from Breekigo, Thrumster, Caithness. (\(\frac{1}{2}\).\)

high, and 3_4^3 in diameter at top and bottom, bulging in the middle to 4_4^3 inches diameter. Its cavity, which is circular in outline and rounded



Fig. 2. Stone Cup found in a cairn at Breckigo, Thrumster, Caithness. (3.) in the bottom, is 2\frac{3}{4} inches in diameter, and 2 inches deep in the centre. Along with the hammer and the cup there was also found an irregularly

rounded Stone Ball, not of the claborately formed and decorated type, but more like a pounder or bruiser, which is also in the Museum. These three objects were found in the course of the demolition of the cairn, but it is not known that they had any definite relation to each other as regards their several positions in the deposit, or even whether they were all found in the chamber. But the occurrence of a perforated hammer of grey granite in the chamber of the neighbouring cairn of Ormiegill renders it probable that the Breckigo hammer did come out of the chamber, whether the cup and the ball may have belonged to the burial deposit or not. See also the Proceedings, vol. viii. p. 232, and Ulster Journal of Archeology, vol. ii. p. 107, and plate.

(3) By Rev. Douglas Gordon Barron, M.A., Minister of Dunottar.

Large Cinerary Urn of clay, 17 inches in height by 13½ inches across the mouth, coarsely made and unormamented, the lip being slightly everted and partially imperfect on one side, found at the head of Culla Voe, in the island of Papa Stour, Shetland, in 1884. [See the subsequent communication by Rev. D. G. Barron.]

(4) By George Kinghorn, St Rollox Works, Glasgow.

Axe of porphyritic stone, linely polished, two oval Knives of porphyry, and fragments of a large vessel of steatite, dug up with a number of other axes and knives of the same kind (subsequently acquired for the Museum) at Modesty, Bridge of Walls, Shetland. [See the subsequent communication by Mr G. Kinghorn.]

(5) By Mrs Mackintosn, Ben Wyvis Hotel, Strathpeffer.

Bowl-shaped Vase of reddish clay, 4\frac{3}{4} inches diameter, with rounded bottom and horizontal looped side-handle immediately under the rim, and convex cover, the exterior both of the vessel and its cover being ornamented with slight parallel horizontal flutings, dug up at Suez.

(6) By His Grace The Duke of Sutherland.

The Sutherland Book. By Sir William Fraser, K.C.B. Three vols. 4to. Privately printed, 1892.

(7) By Hardy Bertram M'Call, F.S.A. Scot., the Author.

The History and Antiquities of the Parish of Mid-Calder, with some account of the Religious House of Torphichen, founded upon Record. 4to, Edinburgh, 1894.

The following articles, acquired by the Purchase Committee for the Museum and Library, during the recess 14th May to 30th November 1894, were also Exhibited:—

Axe of felstone, 44 inches in length by 25 inches across the cutting



Fig. 3. Gold Penaunular Ornament. (1.)

edge, with rounded sides, the butt slightly fractured by chipping, found at West Kilbride, Ayrshire.

Axe of felstone, $4\frac{5}{5}$ inches in length by 2 inches across the cutting edge, with truncated butt, and nearly circular in the cross section—found at Ardross, Ross-shire.

Irregular circular Disc of dark greyish coloured flint, 3^{+}_{10} inches in longest diameter, and 3^{+}_{2} inches across the lesser diameter, ground to a sharp cutting edge round the greater part of the circumference—found at Antross, Rossshire.

Gold penannular Ornament (fig. 3), with the two ends terminating in

cup-shaped discs—found on the farm of High Drummore, parish of Kirkmaiden, Wigtownshire. Objects of this class in gold have rarely been found in Scotland, though they are not uncommon in Ireland. An example in bronze, which was found some years ago at Poolewe, Ross-shire, and presented to the Xational Museum by Sir Kenneth Mackenzie of Gairloch, is here given (fig. 4) for comparison.



Fig. 4. Bronze Penannular Ornament. (2.)

Urn of cinerary form of steatitic clay (imperfect in the upper part), filled with a mass of burnt bones and hardened clay—found at Culla Voc, Papa Stour, Shetland.

Axe of porphyritic stone, 4½ inches in length by 2% inches across the cutting edge, polished, with rounded sides; the butt and cutting edge slightly fractured—found in Perthshire.

Axe of mottled grey flint, $5\frac{7}{8}$ inches in length by 3 inches across the cutting end, ground at the cutting end only—found in Perthshire.

Axe of micaceous stone, 9 inches in length by 3 inches in breadth across the middle, from which it tapers towards the butt and cutting end —found in Perthshire.

Axe of weathered felstone, 6_8^7 inches in length by 2_8^6 inches across the cutting end, polished, but imperfect on one face—found in Perthshire.

Socketed Knife or Dagger of bronze, 8 inches in length, with circular socket, ³/₄ inch in diameter and broken off at the rivet holes. The blade is only § inch in width, imperfect at the point, and is similar in form to the leaf-shaped swords. Found at Falkland, in Fife, about 1820. This form of socketed knife is rare in Scotland, but is more common in England and Ireland.

A Collection of Flint Implements from Culbin Sands.

A Collection of Flint Implements from Glenluce Sands.

Keary's Vikings in Western Christendom, A.D. 787 to A.D. 888.
London, 1891, 8vo.

Bannwarth's Crania Helvetica Antiqua. Leipzig, 1894, 4to.

Bonwick's Irish Druids and Old Irish Religions. London, 1894, 8vo.

Cameron's Reliquiæ Celticæ: Texts, Papers, and Studies in Gaelic Literature and Philology. 2 vols. 8vo, Inverness, 1894.

Reinach's Antiquités Nationales, Description Raisonnée du Musée de Saint-Germain-en-Laye, Bronze Figures de la Gaule Romaine. 8vo, Paris, 1895.

The following Communications were read:-

T.

NOTES ON SOME NON-BIBLICAL MATTER IN THE MS. OF THE FOUR GOSPELS KNOWN AS THE BOOK OF MULLING. BY REV. H. J. LAWLOIR, B.D., F.S.A. Scott.

The Book of Mulling is a Latin manuscript of the Four Gospels, written in the Irish character, and preserved in the Library of Trimity College, Dublin. The name by which it is usually known is justified by the colophon found at the end of the Gospel according to St John, which contains the statement:—"nomen autem scriptoris mulling dicitur."¹¹ There can be little question who this Mulling was. The most distinguished—so far as I know, the only—ecclesiastic mentioned in the ancient Irish Annals bearing the name is Dairchell or Molling, who, after having presided for some time over a monastery in the place still known as St Mullins in the Co. Carlow, Irchand, died in the last decade

¹ I venture to give this colophon in full, so far as 1 have succeeded in reading it, as mistakes have crept into the only published transcriptions of it which 1 have seen.

```
col, a Φinit amen Φinit
o tv quictiq: Scripscris
t scrutatus fueris t etia
uideris h uolumin dm orá
```

Of special importance are the words "h (=hace) nolumina" in 1.4, printed "h nolumen" by Westwood, and more grammatically, but less correctly, "hose nolumen; by others. The expression accords with the fact that the Book consists (besides introductory matter) of four distinct nolumina or gatherings, one for each Goopel, We see, therefore, that the serble (if he was not 84 Mulling himself) not only made a transcript of Mulling's text, but further imitated the form of his manuscript as regards the division into quires, "Clinosa" in 1.7 should perhaps be "clinosa".

of the 7th century. The extreme rarity of the name makes it highly probable that this is the Mulling referred to in the colophon. On the other hand, paleographers tell us* that the date of the manuscript is at least a century later than Dairchell. The true reconciliation of this apparent condict of evidence seems to be given by the supposition that Mulling wrote a copy of the Gospels; that a century after his death an anonymous scribe made a transcript of this book, including the colophon; and that this transcript is the "Book of Mulling," which has survived to the present day.² Thus much, at least, appears to be certain, that, by whomsoever penned, every part of our manuscript must have been written in the monastery of St Molling at St Mullins; for until near the end of the 18th century it was in the custody of the family of Kavanagh, to which St Molling belonged, and whose family seat at Borris-in-Ossory is within a few miles of the site of the monastery.³

The peculiar way in which the manuscript is written has brought about the result that several pages have been left blank. These have been in some cases used for the transcription of ecclesiastical documents. Thus at the end of St Matthew we find a single blank leaf. The recto of this and part of the second column of the preceding page contains—not in the same hand as the body of the manuscript, if I judge correctly⁵ the Office of the Visitation of the Sick, published by Warren, Liturqu and

Berger, La Vulgate, pp. 34, 380: Scrivener, Introduction, Ed. 4, ii. p. 78.

² (f. Professor Abbott ⁶ On the colophon of the Book of Durrow "(Hernathena, vol. viii, p. 199), where reasons are given, almost amounting to demonstration, for believing that the Book of Durrow (inclusing the colophon) is a transcript from a copy hastily written, possibly in a cursive hand, by St Columba. On the other hand, Bishop Reveys (Life of St Columba, p. xiv) asserts that "the colophon in Irish manuscripts is always peculiar to the actual scribe, and likely to be omitted in transcription."

³ Mr Warren appears to overlook the importance of this fact when he writes in the Academy, Jan. 26th, 1893, p. 83, "But who is the "Mulling Scriptor" of this rolume! and where was his cicitas! The proposal to identify thin with St Mulling of Ferns (who died 697)... must now be finally abandoned."

⁴ Not as Westwood says, in his very inexact account of this MS., "the last and part of the preceding pages" (Pal. Soc. Irish Biblical MSS., Pl. II. p. 4).

⁵ But Westwood emphatically says: "the original scribe had" written this Office (the italies are his own).

Ritual of the Celtic Church, p. 171 sppt. Again, the concluding verses of St John, with the colophon, are written on the recto of the last leaf of the quire assigned to that Gospel, and the verse thus left idle has been madthe receptacle of matter to which I now ask your attention.

I may here remark that when I undertook to write a paper on the non-biblical matter of the Book of Mulling, I entertained the hope that I might be able to present you with a full transcript of several pages, including that which I am now about to describe, which have hitherto been only partially deciphered. At the hast moment, however, an unexpected difficulty has arisen: I have been unable to apply chemicals to the manuscript—as I had hoped to do—and have been obliged to content myself with what my cycsight could reveal to me, assisted only by good light and some little patience. It is possible that at some future time I may be able to supply the deficiencies of my paper necessarily resulting from this circumstance.

Two facts at once strike us when we proceed to examine this page of the manuscript,—\(\pi \text{sd} \), that the writing is in the same hand as the main portion of the book; and \(\text{secondly} \), that it follows the colophon. Combining these two facts, and assuming the correctness of the hypothesis which I have advanced as to the origin of the manuscript, we are entitled to infer that, unlike the biblical text, this page has no claim to represent an exemplar coeval with St Molling of Ferns, but that it was written \(\text{by an inmate of his monastery}, \) about the close of the eighth or beginning of the ninth century.

Of the contents of the page Mr Westwood writes, "There is (1) an inscription on the verso of the last page (\$i\varrhi\), in the same hand as the text, containing the Magnificat, part of the Sermon on the Mount Apostles' Creed, 'Patrieus Epis', and (2) a circular table, with inscriptions." We will examine these two in order.

¹ One or two misprints may be noted: In the first prayer read "relevatio"; p. 172, 1, 3, the number of illegible letters from one than 10 or 12: 1, 4, delete d, and note that 8 or 9 illegible letters follow omnipotos; in 1, 5, the Ms. has an illegible word before tait; 1, 25 read cactorine for o to; p. 173, ll. 6, 8, read eachoric time, cacharitte: here, as elsewhere, peculiarities of spelling are not very carefully preserved.

I. The Liturgical Fragment.—Of this Mr Westwood's words are an approximation to a correct description, but they are no more. The document contains neither Magnificat nor Apostles' Creed, though both are referred to; it does contain "Patricius Episcopus", though a word of explanation was needed in the case of this somewhat mysterious title; and finally, it refers to several other pieces of interest which Mr Westwood has not mentioned. All this will be evident from the transcript which I now give. The document is written in one column of about thirteen or fourteen lines, each containing some thirty-five letters, towards the left of the page, as if room were left for a second narrower column to the right, which has not been added.\(^1\) The exterior margin is very narrow. In the transcript, I have underlined letters which are not distinct enough to be read with entire confidence. Those which have been conjecturally supplied are enclosed in square brackets. The title (if any existed) is illegible, with probably a line or so of text.

l. l. "al" perhaps = "alleluia"; but possibly the letters are "ad" (?="[dekd," as below).

^{1. 3. &}quot;1" is very uncertain: the mark so read may be merely an accidental stain and not an ink-mark; "r" may be "n". The letter "t" at the end of the line is in the margin, and does not appear to be part of the text.

¹ The length of a line of writing is 5.8 cent., the breadth of the page being about 10.5 cent.

1.4. The line over "dni" and perhaps the "so" of "precursorem" are legible.
1.5. "b" should perhaps be read as "o", the downward stroke of "U" just above making it look like "b".

l. 10. The last letters are very difficult to read; see below.

l. 11. There is possibly one letter between "[Uni]tas" and "[u]sque" (l="i"; see below).

For the benefit of those who, like myself, are ignorant of the trish tongne, I may note that Rev. T. Olden tells me that "conrici dead" = usque in linem. For this information, and for much valuable help, I desire to make grateful acknowledgment.

A glance through this document will suffice to show that it is liturgical in character, and that the ecclesiastical office which it represents contained at least the following parts: (1) "Magnificat"; (2) INo . . . rem; (3) "Benedictus", &c.; (4) "Uidens autem", &c.; (5) "Christus illum", &c.; (6) "[Im]memoria", &c.; (7) "Patricius Episcopus", &c.; (8) "Inuitiata quod", &c.; (9) [. . .] eis peccata plurima; (10) "[. . .] q; inmensam", &c.; (11) "[Uni]tas," &c.; (12) "Credo", &c.

Can any of the parts thus described be identified? Some with the greatest case. For example, that which is called "Magnificat" (1) is beyond doubt the hymn of the Blessed Virgin, as used at Vespers in the medieval Church of England, and at Evensong according to the Reformed Anglican usage. That this Canticle was used in the early Irish Church we need no futher assurance than that which its presence in the Liber Hymnorum' affords. Again, "Uidens autem", &c., (4) is obviously a lection from St Matt. v., "Jesus" being inserted after "autem" in agreement with the majority of MSS, of the Irish recension, including the Book of Mulling itself. Once more, "Credo", &c., (12) is the Apostles' Creed, which we know to have been commonly employed in Celtic worship.

¹ The Book of Hymas of the Ancient Church of Ireland, edited from the original monuscript in the Library of Trindy College, Inddix, with translation and notes, by James Heuthorn Todd; Indding Fase, i. 1855, Fase, ii. 1869. De Trold (Alvert, p. 2) was aware of the existence of a second copy of the Book of Hymas, then in the Library of 8t Isidore's at Rome. It is now preserved in the Franciscan House, Merchants' Quay, Dublin, and I have occasionally referred to it as the "Franciscan Copy." A new and complete edition of the Liber Hymnorum is now being prepared by Professors Bernard and Atkinson.

One word more before we leave I. 11 as to its last word. It is natural to read "pat" as the fourth word of the Creed, "patrem." And this is not impossible, for the abbreviations in our MS, are sometimes quite arbitrary. Thus "patrem" is represented by "pa" at Matt, xv. 4, 6, while the same letters stand for "patri" in the intervening verse, not to mention other instances. But, on the other hand, t is almost always used for ter. I have therefore ventured to regard "pat" as the first word of the Lord's Prayer (13), and to conjecture "noster" as the first of the illegible words in l. 12. That the Credo should be followed by the Pater Noster is just what we might expect. The same sequence occurs in the Book of Dimma, the Visitation of the Siek in the Book of Mulling, the Antiphonary of Bangor, and the Book of Hymns fo. 30v°, i.e., apparently in all the Celtic offices, not strictly Eucharistic in character, in which the Creed is found; 1 the Book of Deer (Warren, p. 166) being, of course, no exception. The word "noster", especially if written nr, would fill only a small part of the vacant space in l. 12, which appears to have contained twelve or fourteen letters. The remainder was possibly taken up with the first words of the embolismus (14) "Libera" or "Libera nos" (cf. Warren, pp. 164, 170, 172, 177, 223, 242; but see also Mr Warren's letter in the Academy, Jan. 26th, 1895, p. 83, and below p. 45).

After these, perhaps the piece most easily recognised is that commencing
"Patricius episcopus orat" (Loret)—(7). This was written in full, and
enough remains legible to place beyond question its identity with one of
the couplets added in the Antiphonary of Baugor (fo. 15v'), and in the
copy of the Book of Hymns preserved in the Franciscan Monastery,
Merchants' Quay, Dublin, to the Hymn of Secundinus in honour of St
Patrick. The couplet runs as follows?—

Ounpare the Ohl-Irish Tract De Arreis, edited by Mr Kuno Meyer (Rev. Celtiquo., Oct. 1894), in which the recitation of Paters is frequently enjoined without the Credo (capp. 1, 3, 10, 13, 20, 31, 33), while the Credo never stands alone, being always either followed (14 [ext credo is here left untranslated), 20) or preceded (21) by a Pater.

² I quote from the Antiphonary, with which our MS, agrees. In the Franciscan Book of Hymns there are some variations:

Patricius sanctus episcopus oret pro nobis omnibus et miseriatur protinus peccata que commisimus.

"Patricius apiscopus oret pro nobis omnibus at deleantur protinus peccata quae commisimus."

The identification of these lines leads to the anticipation that the Hymn of St Secundinus itself, to which they are subjoined as an appendix in the only other MSS, which are known to contain them, may form one of the earlier parts of the office. And this anticipation will be strengthened when we remember that we are dealing, probably, with a monastic service and recall the contemporary words of the Book of Armagh, "Patricius ses Eps honorem quaternum omnibus monasteriis et aeclessiis per totam hiberniam debet habere HI. Ymnum eius per totum tempus cantare . . ." If this "Hymn of St Patrick" forms part of our office, it will most probably be "Christus illum," &c. (5), or the following number. Now at first view it may appear impossible that it should be (5); for on a reference to the Liber Humnorum we discover that neither the Hymn of Secundinus, nor, indeed, any other poem in the whole collection commences with these words. The supposition, however, must not be at once set aside, for we find that the third last stanza of the hymn, which is alphabetical, begins with the very words of which we are in search. No other liturgical form which I have come across commences with the words "Christus illum": these words occur in our office just at the very place where we might expect to have the Hymn of Secundinus, or possibly an extract therefrom ; we may feel fairly confident therefore that in the concluding stanzas of this hymn (Liber Hymnorum, i. p. 21), which I now transcribe, we have hit upon (5) of the office.

> Xps illum sibi legit in terris uicarium qui de gemino captinos liberat seruitio plerosque de seruitute quos redemit hominum innumeros de zabuli obsoluet dominio.

Ymnos cum apocalipsi psalmosque cantat dei quosque ad edificandum dei tractat populumi quam legem in trinitate sacri credit nominis tribusque personis unam docetque substantiam,

¹ On the words "dei populum" the Leabbar Breac has the gloss "populitrinc," which Dr Todd, (Lib. Hymn, i. 22) "takes to mean "populi trinc, the people of the VOL. XXIII

Zona domini precinctus diebus et noctibus sine intermissione deum orat dominum cuius ingentis laboris percepturus premium cum apostolis regnabit sanctus super israel.

We must now pause for a moment to consider a possible objection of a sceptical critic. Is it possible, at least is it likely, it may be asked, that the last three stanzas of a popular hymn should be chanted in an office such as that which we are considering, apart from the preceding portion? The likelihood does not appear to be increased by the circumstance that the verses when separated from their context do not make very obvious or very good sense.

A complete answer to this difficulty is found in a story given by Dr Todd, in his notes to the Liber Hymnorum (i. p. 33), from the Leabhar Breac. The story is interesting, albeit somewhat frivolous; moreover, it not merely serves our immediate purpose of annihilating the sceptic, but throws out a hint which we shall find valuable by and by. I need searcely apologise therefore for quoting it almost at full length.

St Secundinus (or as the narrator calls him, Sechnall) had read his adulatory hymn to St Patrick, in whose honour it had been written. "When the recitation of the hymn was concluded, Sechnall said, 'I must have reward for it,' said he. 'Thou shalt have it,' said Patrick, 'the number of days that are in a year, the same number of souls of sinners shall go to heaven, for the making of this hymn.' 'I will not accept that,' said Sechnall, 'for I think that too little, and the praise is good,' 'Thou shalt have then,' said Patrick, 'the number of the hairs that are on the casula of thy cowl, the same number of sinners to

Trinity, or the people of God, as in the Latin." This note receives confirmation from, while at the same time it illustrates, a phrase in the collect, "creator naturarum," preserved in the Book of Mulling (Warren, p. 172), viz.: "has trinitatis populi titi. . . . preess." In the Book of Deer (fol. 28b, Warren, p. 164) this runs "trementis populi titi." Probably the Book of Mulling gives us the earlier form of the Collect, composed by one who thought, if he did not write the rough draft, in Irish, and translated into too literal Latin an idiom of the vernacular speech which has been removed in the recieraou given in the Book of Deer. The change would be facilitated by the close resemblance of the two words "trementis" and "trinitatis" in the minuscule Irish character.

go to heaven, for the hymn.' 'I will not accept it,' said Sechnall, 'for who is the believer who would not take that number to heaven, although he were not purised by myself, nor by anyone, as thou art.' 'Thou shalt have,' said Patrick, 'seven every Thursday, and twelve every Saturday, to go to heaven, of the sinners of Erinn.' 'It is too little,' said Sechnall. 'Thou shalt have,' said Patrick, 'every one to go to heaven who sings it lying down and rising up.' 'I will not accept that,' said Sechnall, 'for the hymn is too long, and it is not every one that can commit it to memory.' 'Its whole grave then,' said l'atrick, 'shalt be upon the last three strucas of it! 'Deo gratias,' said Sechnall.

"The Angel promised the same thing to Patrick upon the Cruach.
viz., heaven to every one who shall sing the last three stanzas of it at
lying down, and at vising up, as is [said by the poet],

"A Hymn, which, if sung when alive, Will be a protecting Lorica unto all."

I do not guarantee the historical character of this tale. It demonstrates, however, two facts to which I ask special attention:—1. That it was customary to substitute for the hymn of Secundinus its ast three stanzas, exactly as appears to have been done in our office. 2. That the usual time for reciting the hymn, in whole or in part, was before retiring to rest at night, and after rising in the morning.

We have now advanced so far as to have identified (5) and (7) with the hymn of Secundinus, and a supplementary stanza or antiphon added thereto in two manuscripts. It is natural to guess that the intervening number is another similar addendum to the hymn. Four such supplementary couplets are known, and one of them, found both in the Leabhar

¹ The introduction to the Hymu of Secundinus is wanting in the Trinity College Book of Hymus, a leaf having probably been lost at the beginning of the MS. The Franciscan copy, however, has an introduction, in which this story is told in a somewhat abbreviated form—the latter portion, on which our argument is built, being identical with what we find in the Leabhar Breac (see Whitley Stokes, Tripartite Life, p. 382 sog.)

² The variety which exists among the five authorities for these four stanzas is remarkable. Numbering those in the Trinity College Book of Hymns 1, 2, 3 respectively, and "Patricius Episcopus" 4, they are given in the following various relative positions in the authorities. T. C. D. Book of Hymns 1, 2, 3; Antiphonary

Breac and the Liber Hymnorum (T.C.D. MS.), is sufficiently attested by the few letters still remaining legible to have stood at this place in our MS. The couplet is as follows:—

> In memoria eterna erit iustus ab auditione mala non timebit.

The Book of Hymns has done us excellent service. We call it in to help us once more in identifying "Inuitiata quod," &c. (8). No hymn in the book has these for its first words. But we discover that of which we are in search in the three last stanzas of the hymn of St Cummain Fota (Lib. Hym. i. p. 80), which are as follows:—

> Inuitiata quo (sic) feramus pectora regi regnanti ab aeuo in secula alleluia.

Gloria patri atque unigenito simul regnanti spiritu cum agio alleluia.

Nimis honorati sunt amici tui deus ¹ nimis confortatus est principatus corum alleluia,

Again, be it noticed, the last three stanzas stand in lieu of the whole and the conclusion which has been already reached in the case of 8t Secundinus' poem. The most sceptical will scarcely take refuge in the supposition that three verses as a substitute for the whole was an indulgence permitted only in the case of a single lorica, and not extended to less famous compositions.

As to the identity of number (9) "[...]icis peccata plurima," to which I now proceed, I have no doubt. Its position, following the of Eangor, 2, 4 (the order here is not quite certain); Leobher Ercoc, 1, 2; Franciscan Eook of Hymrs, 2, 3, 4; Eook of Mulling, 1, 4.

¹ Dr Todd points out (Ek. of Hymus, i. 80) that the last stanza is unmetrical, and is merely Ps. exxviii. 17, with one various reading, and therefore cannot have been intended by the author as part of the hymu. It was certainly so regarded, however, by the scribe of the Lib. Hymu, as Dr Todd shows, and also, if I have reasoned correctly, by the scribe of the Book of Mulling, whose evidence is probably older by some centuries (see Whitley Stokes, Gold-Gioa, 2nd ed., p. 6).

concluding stanzas of the hynn of Cummain Fota, renders it probable, if any other indication is found pointing the same way, that it is one of the collects written at the end of this poem in the MSS. And such an indication we have in the words "peccata plurima," which stand as the concluding words in the antiphon—

> "Exaudi nos deus per merita apostolorum optima ut deleantur pessima nostra peccata plurima." Liber Hym., i. p. 80.

Our only difficulty is to explain "icis." If my conjecture is correct, these must be the concluding letters of a phrase equivalent to "as far as." We may guess either "donee dicis" (a construction quite common in Mediæval Latin prose), or "conricis" = "until thou reachest," as Mr Olden suggests, I have supplied the illegible letters in my transcript in accordance with the former conjecture. The latter indeed appears to me, in itself, more likely, and perhaps fits the space better; but the traces of the letter preceding "icis," which still remain, suit "d" better than "r." However the letters "icis" be explained, it is interesting to observe that our MS, here agrees with the Franciscan Codex in omitting the collect "Per merita," &c., which follows "Exaudi nos" in the T. C. D. Book, though the form of expression-"[. . .]icis peccata plurima," for "conrici dead," or "usque in finem"-seems to indicate a consciousness on the part of the scribe that in some copies a second collect, or some other subsidiary matter, was found in addition to "Exaudi nos."

Why St Cummain's hymn should have been recited in St Molling's monastery is not very clear, as there appears to be no notice in historical documents connecting him either with Molling or with the district in which he lived. He was, however, famous throughout Ireland, and an elder contemporary of our saint (ob. 662. Annal. Ultom.).

¹ We have here, it will be seen, a confirmation of the hypothesis that the page under review, and therefore also the Biblical portion of the MS, as we have it, was written, not by SY Molling, but by a seribe who lived a century after Molling's death. It is unlikely that the fane of Cummain should have led to the recitation of his

Number (10)—"[. . .] que imensam," &c.—has next to be considered. We have to look for a stanza whose second word is "immensam," and we at once perceive that the stanza of which we are in quest cannot be the first of a poem. No hymn could have for its first word a substantive followed by the conjunction "que," and in this place q: can scarcely stand for the relative "quae." Thus we have one further proof, if such were needed, of the custom of reciting the last stanzas of a canticle in place of the whole. A search through the Book of Hymns will quickly convince us that number (10) is an extract from the poem "Ymnum dicat," ascribed to Hilary of Poictiers (Todd, Book of Hymns, ii. p. 151). Here are its lost three stanza-ic-

Maiestatemque immensam concinemus iugiter ante lucem nuntiemus christum regem saeculo.

Ante lucem decantantes christo regi domino et qui in illum recte credunt regnaturi cum eo.

Gloria patri ingenito gloria unigenito simul cum sancto spiritu in sempiterna secula.

lorica within thirty years of his death, in a monastery with which he had no direct connection; still less likely that the principle of three stanzas for the whole should have been applied to his poem so soon.

¹ This poem appears to have been used as a lorica. See Whitley Stokes, Lives of Saints from the Book of Lismore (Ancedota Oconicusia, 1890), p. viii, sag., a reference which I owe to Professor Bernard, Compare also the Book of Leinster, fol. 282a (quoted by Dr MacCarthy, Trans. R.I.A., xxvii. 183), and the ancient tract De Arreis published in the Revue Celtique for Oct. 1894, capp. 26, 32. In both these passages from the Treatise De Acreis, the Hymn of St Hilary is enjoined for recitation with the "biait," which Mr Kuno Meyer (p. 492) takes to mean Ps, cxviii. (A, V. exix.). In this he follows Mr Whitley Stokes (Book of Lismorc, p. 406). But throughout this treatise the Psalms are regularly cited by their first words in Latin (capp. 10, 18 [Ps. l., A.V. li.], 33, &c.); and to understand "biait" of this Psalm seems very unhappy in cap, 3-"lauda biait pater after each psalm." Here we should have Ps, exviii referred to by an Irish title in the same sentence with "lauda" and "pater," with the direction, in itself improbable, that Ps. exviii, should be recited after every psalm. If "biait" in capp. 26, 32 were equivalent to the Beatitudes of St Matt. v. (cf. Book of Lismore, p. 323), we should have "Ymnum dicat" in juxtaposition with this passage (with Credo and Pater in cap, 26) as in our fragment. The "chapters" of the "biait" De Arreis 32, Book of Lismore, p. 180, may seem to favour It will be observed that what we reckom—in this following both MSS.

of the Book of Hymns and the majority of copies of the Funum Dicat
—as the last stanza is a doxology. This doxology is in reality not part
of the hymn, as the seribe of the Bangor Antiphonary seems anxious to
hint to us by his panetuation (fo. 4v"). And indeed the same thing
is evident from the fact that two other hymns in the Antiphonary close
with the same words, namely, "Iguis Creator," fo. 11r", and "Mediae
noctis," fo. 11v". A St. Gall manuscript of the Hymn, in fact, onits
the doxology, as Professor Bernard, to whom I am indebted for much
of my knowledge of this poem, has been good enough to inform me.

To make up the customary three stanzas, however, it is necessary to include it: and this appears to be the explanation of the words which I have read "et conglu[ria]." The letters are difficult to decipher, partly because of imperfect formation in the case of the first two or three, and partly because of a rent in the vellum which crosses the last three letters of I. 10. It is thus possible that for c we should read a or o, for o, a; a may just as well be r; y I had for some time read as t, and a may be h. Nevertheless, I am pretty confident that the reading in my transcript is correct. By way of explanation it is only necessary to say that "con" = "with" (see Whitley Stokes, Calendar of trengus, in Transactions of R.I. Academy, Irish Manuscript Series, vol. i., p. eexxxviii.), and that "gluria" = "gloria," by a common substitution of a for a.

We have already seen that the Hymn of Secundinus is followed by two antiphons. In like manner the antiphon "Exaudi," &c., follows the Hymn of Cunmain Fota. It may therefore be regarded as not improbable that number (11) is one of the antiphons belonging to the Hymn of Hilary (10). Now three such antiphons are known to exist, and all

the application of the word to the psalm: but the "chapters" may mean either a verse of a psalm or a single beatitude; see the Preface to Ultan's Hymn (Lib, H.i., 60), where the word "chapters" is applied to the stanzas of the poem—"There are three chapters in it, and four lines in each chapter."

U. for this substitution Gilbert, National Measureripts of Iceland, part i. p. vi. Many examples might be cited from the Book of Mulling, the most noticeable being the name of the scribe, the first syllable of which is elsewhere commonly written Mol. "Gluria" seems not to occur elsewhere in the MS.

of them are preserved in the Trinity College Book of Hymns. They begin respectively, "Te decet ymnus," "Canticis spiritualibus," "Unitas in." The Franciscan copy has the first two of these, while, as Professor Bernard tells me, no other known MS, of the Hymn gives any antiphons. We may fairly expect-though, of course, it must not be assumed as certain-that number (11) is one of the three just mentioned. In deciding among them we have not much to guide us. The space before "usque" is occupied with letters for the most part illegible. However, the letter "t" is fairly distinct, and is followed by (apparently) two letters, forming part of the same word. This last consideration disposes of the claim of "Te decet," Both the remaining antiphons have the letter "t" in a suitable position, but the preference must be given to the latter, as the marks following "t" may well represent "as," but can scarcely be "icis." If, as is possible, another letter is obliterated between "[Uniltas" and "usque," it was probably "i"=in. I am inclined. therefore, to believe that number (11) is the antiphon which I now transcribe :-

Unitas in trinitate te deprecor Domine ut me semper trahas totum tibi uotum uouere (Todd, ii. p. 161).

Number (2) has up to the present bafiled all my efforts to identify it.

I have left for the last number (3) "Benedictus," &c., because I cannot be quite confident that my identification of it is correct. At first, one might feel inclined to assume that it is the canticle still usually designated by this name, and used in the Ancient Irish Church (Liber Hymnorum, ii. 190). This supposition, however, is rendered untenable by the words "usque ioh . . .," i.e., as far as the word "iohannes," or some case of this word, or the line beginning therewith. For, though the Benedictus has St John the Baptist for its subject, he is not mentioned in it by name. I would suggest that what is meant by the words which I have noted is an extract from the Hymn, attributed to St Columba, beginning "Noli Pater." (Lib. Hym., ii. p. 262.) It consists of seven stanzas, the fourth, lifth, and sixth of which I trunscribe.

¹ But see below p. 45.

Benedictus in secula recta regens regimina iohannes coram domino adhue matris in utero Repletus dei gratia pro uino atque siccera Elizabeth et Zacharias uirum magnum genuit iohannem haptizam precursorem domini.

The words of the last line, allowing for customary abbreviations, would about suit the spaces of lines 3 and 4 of my transcript, and, if they are inserted there, we have an exact description of these stanzas. Again, as before, three stanzas for the whole is the principle of selection. All this points to the correctness of our hypothesis that we have in these stanzas the passage referred to in number (3).\(^1\) One difficulty only has to be met. In all the other cases in which three stanzas were chanted as a substitute for the entire hymn the three last were chosen; and in the case of the hymn of 8t Secundinus, the legend to which I have already appealed implies that this was the regular and customary practice. Is it likely that the usage was different with the "Noli Pater"?

I answer that, whether a priori likely or not, a departure from this usage does appear to have taken place in the present instance. For the words "Benedictus usque ioh . . . "imply that only a portion of a canticle was to be sung, and that this portion did not conclude with the last verse of the hymn. Had it been so, the ordinary formula which occurs elsewhere in the office conrici deal, or its equivalent usque i finem, would have been used. And, moreover, good reason can be given why precisely the portion of the hymn "Noli Pater" above quoted should be sung in preference to the last three stanzas. It is possible that for once the compiler of our office may have paid attention rather to the meaning of the words which he put into the mouths of those who used it than to traditional custom. At least this much is clear: the three stanzas just cited make good sense, and are in themselves a complete poem on 8t John

2 Yet see p. 21.

¹ It ought to be added that the combination of letters which I have read as "tā" is not exactly similar to anything which I have observed elsewhere in the manuscript. For this reason no argument can be based upon it. I have not noticed any other place in which "tam" occurs at the end of a line: but \(\text{\sigma} \), the combinations used for "tio," Mar. vii. 8, xv. 41; "triam," Mar. vi. 1: "tin," Mar. ix. 20; "tiam," Matt. xii. 42, 30 h. i. 10; "six," Matt. xxv. 24, xxvi. 25, &c.

the Baptist. They are, moreover, the only stanzas in which he is mentioned. Had the last three stanzas been chosen, the extract would have begun in the middle of a sentence, and have been absolutely unmeaning as regards its first three lines, while the last stanza would have introduced an entirely new thought, apparently altogether unconnected with what immediately precedes it, and in the hynn itself (supposing that we have it in its original form) more closely associated in its idea with the opening verses. This last stanza runs thus:—

> Manet in meo corde dei amoris flamma ut in argenti uase auri ponitur gemma.

I think, then, that the probability is that the hymn described as "Benedictus usque ioh . . . " is stanzas 4, 5, and 6 of St Columba's "Noli Pater." The probability will be either destroyed or transformed into certainty when a few more letters of the MS, can be read. Meanwhile we must be content to guess.

Assuming then, for the present, the correctness of our guess, we turn now to the introduction to "Noli Pater" in the Liber Hymnorum (ii. 259), in order to discover what the compiler of the collection has to tell us of its origin and use. He ascribes it to the time when King Aedh granted to St Columba the site of a church at Derry. No sooner had the gift been presented than "the town was burned, with everything that was in it... The fire, however, in consequence of its greatness, threatened to burn the whole Daire, so that it was to save ii, at that time, that this hymn was composed. Or it was the day of Judgment he had in view, or the fire of the festival of John." Rather a liberal choice! and none the less so because the only allusions to fire in the entire hymn are the word "fulgure" in the first, and "amoris flamma" in the last stanza. It is obvious that all this is mere criticism and guess-work. Clearly the only thing in it all which rests on tradition is the ascription of the poem to St Columba. But we stand on firmer ground in the

¹ The introduction in the Franciscan copy is in some respects different. But it has the important words, "Whosoever repeats it on lying down and rising up it saveth him from every fire" (Stokes, Triportite Life, p. civ.). The story is preserved, with the mention of lying down and rising up as the special times of recitation, in the Etinburgh Ms. of St Columba's Life. Skene, Cellie Socialand, ii. p. 432 99.

next sentence, in which the writer tells us of the customs of his own day, and which quite accounts for his anxiety to discover or manufacture allusions to fire in the hymn. "And it is sung," he adds, "[as a protection] against every fire, and every thunderstorm, from that time forth; and whosoever sings it at bet-lime and at rising, it protects him against lightning, and it protects the nine persons whom he desires [to protect]." It was, then, a lorica, and it was used night and morning.

We have now acquired some general information as to the character of the office which forms the subject of our consideration—not such information as we might have desired, or as we may hope for in the near future, but still sufficient to make a further question worth asking: What was the purpose of the office? when was it used?

If we could restore the first line or two of the page, speculation would probably be needless. The title would supply us at once with the knowledge which we seek. Meanwhile, it will have been noticed that the story from the Leabhar Breac, which I have cited in connection with the hymn of St Seeundinus (5), as well as the note with which it concludes, with regard to the angel at the Cruach, conveys definitely the information that the hymn was to be said, as a lorica, at be-l-time and rising. A similar statement, as we have just seen, is made in the Liber Hymnorum about the "Noli Pater" (3). These two hints are sufficient to lead to the conclusion that the office was said daily, either at bed-time, as was Compline in the mediæval Church, or in the early morning, like Matins, or rather, perhaps, at both these times.

¹ Possibly, however, in private. [Mr Warren regards this as the more probable view. "I am inclined to think," he writes in the *zendany_3.4m. 26(n, 1885, p. 83. "that we have here a collection of formulæ. . . . intended for private use by a siek person as a sort of compound lories or charm." He thus connects our fragment with the Office of the Visitation of the Sick. Against this view? I have given what appear to me decisive reasons in the *Zendany of Peh. 2ml., p. 105., viz.: that it is written at the end of St Loba's Gospel, the Trisbutio following St Matthew, and being written by a different scribe. I may now add one or two words. It seems probable, as has just been pointed out, that the Office was intended for *daily* use. This is searcely consistent with its being said only by the sick. And we find in its various parts nothing specially appropriate to sickness. The hymn "Noli Pater" was a lories against fire and lightning. Why was protection against these more needed by a sick man than by one who was in good health ?

For this conclusion we find some confirmation from the "Ymnum Dicat" of St Hilary (10). This hymn is marked off by its concluding stanzas as one eminently likely to have been used at an early morning service. The two immediately preceding the doxology, with their twicerepeated "ante lucem," have been quoted above. Before them come the following, not less appropriate for morning use:—

> Ante lucem turba fratrum concinnemus gloriam qua docemur nos futuri sempiterna secula Galli cantus galli plausus proximum sentit diem nos cantantes et precantes quae futura credimus.

It is therefore no more than one night expect that, in one of the manuscripts containing the *Younua Dicat*, it is one of two poems which follow a collection of fourteen prayers and hymns, expressly stated to be intended for use in the morning.

Evidence, however, which seems at first view to indicate that this poem was used at another time of the day, must not be overlooked. In the Trinity College Manuscript (W. Stokes, Goidelica p. 98, Todd, Lib. Hom. ii., pp. 151, 162), two accounts of the composition of the poem are given, The first, which is somewhat obscure, is as follows :- "Hilarius . . . fecit hunc ymnum xpo in monte gargani, after eating the dinner (naprainne = prandium) illic in the robber's house. And after giving thanks to God, the sons of life dwindled post till they were not bigger than infants, as that seemed unto the priest who was with them. An angel came and said to them, Nisi penitentiam egeritis in infermum ibitis, egerunt ergo penitentiam et dedit deus indulgentiam eis per istam laudem sie nobis convenit canere post prandium." The last words may seem to indicate that it was customary to sing this hymn, after the supposed example of Hilary of Poictiers, at the conclusion of a meal, rather than at bed-time or in the early morning. This, however, must not be too readily assumed, for several reasons. First, there can be no doubt that the passages already cited in connection with numbers (5) and (3) bear witness to an established usage. To me it seems that the sentence just quoted does not go so far as this. It does not so much justify what is done, as state what, in the writer's

opinion, ought to be done (connenit). It has rather the sound of an apology for the practice of a few persons of special piety, than of a defence of a settled monastic rule. Secondly, it is a little doubtful how we are to understand the word "canere." It may seem natural to take it transitively and supply "istam laudem" (i.e., the hymn of St Hilary) from the preceding clause. It is, however, equally possible that it is used intransitively, in which case no reference whatever is made to the recitation of our hymn. And so Dr Todd appears to render it. Thirdly, it is to be noted that the Trinity College copy here lacks the support of the Franciscan manuscript. And lastly, admitting that we have here proof of the recitation of the hymn of St Hilary, "post prandium," as a regular practice, this does not in any way conflict with the supposition that it was chanted at other times as well.

And, in fact, we have definite proof that this was the case. The poem is mentioned in stanza xxiv of the metrical rule of Ailbhe of Emly as follows:—

"The Hymnum Dicat should be sung
At striking the bell for Canonical Hours,
All wash their hands carefully,
The brethren assume their habit."

Irish Ecclesiastical Record, vol. viii, p. 183.

Thus the regular use of the hymn was not restricted to the conclusion of meals. It does not, indeed, seem very likely that it was recited before every hour, as the first two lines here quoted seem to imply. The mention in the third and fourth lines of the monks performing their ablutions and donning their labit points rather to the first office of the day. And with this the context agrees. The stanza (xxii) next but one before that just quoted runs:—

The perfect observance of the Canonical hours Is reckoned the chief rule; Correct Matins, according to the Divines, Is at the close and the beginning of day.

¹ O'Thus it is our duty to sing after dinner:" to which he appends the note, "It (i.e., the story) does not appear to have much connection with the duty of saying grace after dinner, which, nevertheless, seems to be intended as its moral, from the words 'sie' &c." Dook of Hymas, ii. p. 162.

Then, in stanza xxiii, the direction is given that no one is to speak "till the hour of one." This leads us to interpret stanza xxiv as referring to the "striking of the bell" for the first Canonical hour, viz., Matins. And, in accordance with this, we have in stanza xxix,—

It is not permitted to the brothren to depart Until the hour of Tierce, &c.

What seems to be meant is that, at the sound of the bell, the monksrecited the Funum Dicat, and then assembled in the Oratory for Matins, and that they remained there till Tierce had concluded. Thus we have here further reason for believing that the hymn of St Hilary was used after rising from bed in the morning. Would it be too much to draw the additional conclusion that our office was meant to be used by the monks in private, in their several cells, before they met in the Oratory for united worship at the first Canonical hour? However this may be, our conviction as to the time of recitation of our office, in spite of the statement in the T.C.D. manuscript, may remain unshaken.

Setting aside the question of the time, there is one particular in which all the passages which have been cited agree. They all go to show that the office, whether used in the morning, after meals, or in the evening, was said daily. And this appears to receive some confirmation from two considerations which I shall now mention.

1. Allusion is made by Adamman (Vil. 8, Col., ii. 9.) to a certain "hymnorum liber septimaniorum sancti Columbae manu descriptus." This, according to Reeves (ot loc.), was "a volume containing hymns for the various services of each day in the week." If this be so, we may infer that the daily services consisted in large part of hymns or canticles. And the inference is borne out by another passage in the same work. St Columba, as is well known, died just after the bell for matins had rung. The service proceeded as usual. And then we are told (iii, 23: Reeves, p. 239),—hymnis matutinalibus terminatis—the body of the saint was borne to the hospice. Again it is implied that a daily service

According to the Preface to the Allies, St Columba received from Pope Gregory the Great "the Hymns of the Week, that is [a book with] hymns for each night of the week" (Revees Vit. Col., p. 318 sq.), which is not without its bearing on the question of the time of day at which our office was used.

consisted mainly of hymns. Such is the character of the office which we are considering, and so far our supposition is confirmed that it was intended for daily use in the monastery.

2. In the Life of St Molling, preserved in Marsh's Library, Dublin, and dating, according to Reeves, from the 14th century, the following narrative occurs.1 "The King [Fianachta, from whom St Molling had procured the remission of the Borromean tribute by a trick | sent the army with anger after St Molyng to kill him together with his people. The holy senior Molyng, knowing this, bade his own people to proceed more speedily on their way, praying to the Lord; and he himself began a sacred poem in the Scotic (Irish) language, in which he named many saints, praying to them and singing their praises, commencing with a virgin and finishing with the same—that is, first making mention of the most Blessed Virgin Brigid, and at the end using the name of Mary the Mother." A little further on the writer adds, "That sacred canticle of St Molyng is always kept with honour in Ireland, and men of good will, undertaking a journey, sing it; and through the favour of St Molyng, and the rest of the saints whose memory is sung in it, the Omnipotent God sets them free from divers dangers,"2

If the hymn (of which there is no trace in the Liber Hymnorum) was, as the writer of this Life asserts, kept in honour throughout the whole country, it must have been above all sung in St Molling's own monastery at St Mullins. Why, then, is no mention made of it, so far as can now be discovered, in our office? Perhaps because it was in the Irish tongue, which may have been sufficient to exclude it from the service

¹ I quote from "The Ancient Life of St Molyng, being translation of an old Manuscript preserved at Marsh's Library, Dublin, with Notes and Traditions by P. OL.", Dublin, James Duffy and Sons, p. 19 sp. A description of the so-called "Book of Kilkemay," of which this Life forms a part, may be found in a paper by the late Bisbop Reeves, in the Proceedings of the Boyat Lisks Academy, second series, vol. i.—Politt Literature and Antiquities, p. 333, "On a MS. volume of Saints—chiefly Irish—now in Primate Marsh's Library, Dublin, commonly called the Codex Kilkenniensis." See also bis Life of 8V Columba, p. xxv. sp., where it is dated "thirteenthe century."

² It ought, however, to be stated that no mention appears to be made of this poem in the story as given in the Book of Leinster, 295 b sqq. (Gilbert, National Manuscripts of Lefand, part it, p. xxxviii).

of the Church (cf. Warren, ubi sup., pp. 155, sqq.). A more probable reason, however, may be assigned. It was a lorica intended, not for daily, but for occasional use, namely, at the commencement of a journey, It would therefore be excluded from a daily office. Such then we again infer, was the nature of the service which we have been considering.

To sum up. We have recovered in these obscure, scarcely legible lines of the Book of Mulling a sketch of-or, to use a more technical word, a kind of directory for-what appears to have been a daily office used night or morning in the monastery of St Molling of Ferns, in the early part of the 9th century. It is, I believe, the only sample of a daily service of the Ancient Irish or Scottish Church known to exist. It is, undoubtedly, unlike the Irish Missal, of home manufacture. It certainly does not inspire us with much respect for the liturgical instinct of our fathers in the Faith, but it has its interest as one of the not numerous examples of their work in this department.

It may be well to add a scheme of this service, so far as I have succeeded in restoring it. It consists of the following parts (following an illegible portion at the beginning):-

- The Song of the B.V.M. (Magnificat).
- 2. ? Ps. lxx. (lxxi.) i-3: see p. 45.
- 3. Stanzas 4, 5, and 6 of the Hymn of St Columba (Noli Pater).
- 4. A lection from the beginning of St Matthew v., followed possibly by a formula not yet identified.
 - 5. The last three stanzas of the Hymn of St Secundinus (Audite Omnes).
- 6 and 7. Two stanzas supplementary to this hymn (In memoria and Patricius Episcopus).
- 8. The last three stanzas of the Hymn of Cummain Fota (Celebra Juda).
- The Antiphon "Exaudi," &c., appended to this hymn.
- 10. The last three stanzas of the Hvmn of St Hilary of Poictiers (Hymnum dicat).
- 11. The Antiphon "Unitas in Trinitate," &c. 12. The Apostles' Creed.
- 13. The Lord's Prayer, followed possibly by
- The Embolismus, or "Ascendat oratio," &c.: see p. 45.

All the parts of this office, so far as they have been identified (with the exception, of course, of 4), are found in the Liber Hymnorum, while, of 14 Latin Hymns in the two fasciculi of this book published by Todd, at least five are recited: a valuable proof of the use of the collection in Ireland a century or two before either of the MSS, of it now extant was written. At the same time, the copies used at St Mullins in the 9th century must have differed considerably from both of those which we now possess. Thus, our manuscript agrees with the Franciscan copy against its rival in the insertion of "Patricius episcopus" (though with a different text) after the Hymn of Secundinus, while it sides with the T. C. D., and against the Franciscan copy in adding "In memoria." Again, with the Franciscan copy it omits "Per merita," &c., after the Hymn of Cummain Fota, while it differs from both, but most widely from the Franciscan, in giving "Unitas in Trinitate" as the only Antiphon after the Hymn of St Hilary.

One or two words may be added before leaving our Liturgical Fragment. It will be observed that I argue for the existence of a practice in the ancient Celtic Church of singing three, usually the last three, stanzas of certain hymns in place of the whole. And I imagine the proof already given is sufficient; but I am tempted to quote one further passage, which not merely corroborates my reasoning, but itself receives a fresh meaning when the prevalence of the practice referred to is borne in mind. It is from the Preface to the Hymn of Ultan in praise of Brigid (Todd, Book of Hymns, i. 60). "Audite virgines laudes," says the writer, "is its beginning. The alphabetical order is in it... Dicunt alii, that this hymn was originally long, but (that) there remain here only four chapters of it, viz., the first chapter and the last three chapters, causa brevitatis." This is exactly as it should be. The first "chapter" would be cited, no doubt, as giving the title; the last three as being, in some sort, equivalent to the whole.

That this was actually the case we are further assured when we glance at the hymn as printed by Dr Todd.² First come three stanzas beginning

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¹ In the Franciscan copy the first two sentences are found as here quoted, but the last sentence is omitted. Whitley Stokes, *Tripartite Life*, p. civ. sq. ² P. 57.

respectively with the letters X—(" Xps in nostra insola")—Y Z, and then the stanza—

Audite uirginis landes sancta quoque merita &c. &c.

This stanza Dr Todd gives excellent reason for believing not to have belonged to the original poem, in spite of the assertion of the scholiast that some reported it to be the original first verse. How, then, are we to account for its presence here? Most readily. The end of a poem in the Book of Hymns is regularly indicated by repeating under its last line the first word or two of its first stanza. Thus, after the stanza "Zona," &c., of the Hymn of Secundinus are written the words "Audite Omnes," 1 separating the poem itself from the supplementary verses which follow. In like manner, the close of Ultan's Hymn would be marked in the MSS. by writing "Audite," with or without some of the following words of the first stanza, under the last line. When the custom of reciting only the last three stanzas produced its natural result, and the scribes only wrote, and finally only knew, these stanzas, in all likelihood the words "Audite" or "Audite virginis" would still be preserved as indicating the title of the hymn. Some scribe, seeing the words in his exemplar, and knowing another poem beginning with the same words 2 (though not written with the same metre or assonances). supplied, as he supposed, the missing portion of the stanza by tacking on to the phrase which remained words from the other hymn.

Dr Told, it is true, will not admit this explanation. "The suggestion," he says (p. 58), "of the scholiast's preface, that the hymn originally consisted of a capitulum for every letter of the alphabet, is unnecessary." He forgets that the scholiast, by his "dicunt alii," informs us that he is not making a suggestion, but handing on a tradition. And the tradition, especially when supported by the considerations which I

¹ The Franciscan copy has the one word "Audite,"

² Hymns beginning with "Audite" were not uncommon. Out of twelve poems in the Autiphenary of Bangor, two begin with this word, and another has it for the first word of its second verse, the first verse being prefatory (ff. 13 v, 15 v, 17 v). These three hymns are the only strictly alphabetical compositions in the book. Cf. Mone, Laticitische Hymnen, iii. 242, "Mehrere irische Hymnen fangen mit Andite an. S. Maratori anecdots 4, 163 ffg., vielledtch tanch Deuteron, 32, No. 671, 1."

have already adduced, is excellent evidence for the fact. At the very least, the passage cited shows this, that to the writer of the Preface there was nothing strange in a poem being abbreviated by the very peculiar method which we know was applied to St Secundinus' Hymn. 1 The statement2 that "Alphabetical poems containing stanzas for the last three letters of the alphabet only were common "does not in the least invalidate this testimony, unless we have direct evidence that these are complete, and not merely "abbreviated" hymns. It is, indeed, very likely that many of them are in their original form; but this is exactly what one might expect, for when it became fashionable in repeating the hymns to neglect all the stanzas but three, the fashion would very quickly follow among hymn writers of economising labour by writing no more than the three stanzas which were all they could expect to be sung. The very existence, in fact, of a large number of hymns, such as Dr Todd refers to, is a signal confirmation of the thesis which I have endeavoured to establish, rather than an argument on the other side,

But Dr Todd's main proof, that the writer of the preface was incorrect in his account of Utan's Hymn, is of much interest—none the less so because it completely breaks down in view of the results at which we have arrived. He appeals (p. 55) to the Basle MS. A. vii. 3 (described also by Warren, Liturgy and Ritual, p. 185), in which occurs what "is probably a part of an ancient office" in which St Ultan's Hymn was recited. After two hymns recited in the office have been given at full length, the words follow:—

"item xps in nostra insola que nocatur."

² For the correctness of which some evidence would have been welcome. The only instance given by Dr Todd is a hynn which contains five stanzas. No instance, so far as I have observed, is met with in the Eangor Antiphonary or (with the exception of that now before us) in the Book of Hynns.

¹ Todd seems to have been nearer the true explanation of the phenomena of Ultan's Hyum and others of the same class than he was himself aware. He remarks (p. 55, note 2), "The indulgence granted to the repetition of the Hymn of St Patrick was ultimately conceled to the last true reress of it," and then he asks, "Was for on this principle that the Hymn to St Brigid contained only the verses beginning with the last three letters of the alphabet?" If for "contained" he had written "was represented by "the question might have been answered in the allimative.

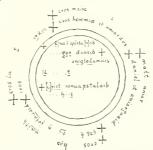
This is proof, according to Todd, that by the compiler of the office the line "Christus in nostra insula" was regarded as the beginning of the hymn. Those who have assented to my reasoning with reference to the use of the hymns of SS. Secundinus, Columba, Cummain, and Hilary, in our office, will at once perceive that this argument is absolutely worthless. All our experience tends to show that it is quite unsafe to assume that hymns, when used in the Offices, were recited in their entirety.\(^1\) And in fact we have here a fresh and most unexpected instance of the principle for which I have been contending. The hymn of Ultan is represented in the Office preserved in the Basle MS, by its lost three stancas only,

Having gone so far, it is worth while to notice how closely our Office and that of the Basle MS, agree in character. Both consist principally of hymns; in both we find three stanzas of a hymn used instead of the whole; in both the hymns are followed (in some cases at least) by appropriate collects; and in both there are lections, in ours from Holy Scripture, in the other from the apoeryphal Epistle of Christ to Abgarus. Our Office, however, is clearly the fuller and more claborate of the two.

II. The Circular Device.—Of this I have little to say beyond describing it as accurately as possible, and suggesting one or two questions, which I shall be obliged to confess my inability to answer satisfactorily. Unlike the Liturgical piece which we have been considering, this device was clearly intended to occupy the whole width of the page, the common centre of the two circles, which are its most prominent feature, being only about \(\frac{1}{2}\) centimetre to the left of the middle of the page. In the diagram which I now give, the dimensions of the original are preserved. It must be understood, however, that it is only a diagram and not a facsimile, though no doubt it will be found sufficiently accurate for practical purposes. I have replaced the Irish characters by letters of a more familiar form, and in the writing outside the circles have inserted no letters or marks which I have not actually read, with more or less certainty.

¹ This applies also to Psalms. See the tract De Arreis (Rev. Celt. Oct. 1894), cap. 13, where the words "In manus usque veritatis" are doubtless a description of the single verse Ps. xxx. 6 (A. V. xxxi. 5).

In the manuscript the diameter of the inner circle is 3.6 centimetres, of the outer, 4.2 centimetres.



I now transcribe the various lines of writing, numbering them for convenience of reference, and conjecturally supplying illegible letters where it seems certain that such letters existed.

- I. (Outer circle of writing). +cros maire [ande]s +matt aniar +cros [io]hun [h]math +cros lu[c --]
- (Inner circle of writing). [ano]irdes+eros heremine et aniardes+-baniel et aniardaid+ext[c]b[fiel-]tis[---a]a[o]irthu-aid+ext[c]sexiel

Taking next the lines within the circles in their order we have-

- 3. +[c]ros i spirta [n]oib
- 4. - - qon danaib+
- 5. - - onigleilamicis
- 6. U -- -- t.
- 7. +[e]rist conaapstalaib
- 8. - - h - s

l. 1. At the word [ande]s is a tear in the vellum, which the binders have remedied (2) by pasting a piece of paper over the word. It consists of about five letters and the tail of f(s) is distinct. In very good light the last five letters of fibraith are almost certain.

- 2. There are five or six letters after "ezcehicl," but "tis" is most uncertain, especially the two last letters; t may be c. See further below.
 - 5. ni may be m or ri; ci is possibly u; l scc. may be b; ci may be a.

The following is a translation:—

- 1. +Cross of Mark South +Matthew West +cross of John North +cross of Luke East
- On the south-east+cross of Jeremiah, and on the south-west+Daniel, and on the north-west+Ezekiel [---], on the north-east+cross of fissiah].
- 3. +Cross of the Holy Spirit.
- 4. ---- with gifts+
- 5. ?
- ?
 +Christ with his apostles.
- 8 2

The most obvious thing to remark about this device is that it is a map or plan of some kind. This is made quite clear by the writing outside the circles, in the inner line of which the positions of the pairof crosses are marked as south-east, &e., while in the outer the cardinal points are noted. That our figure, then, is a map or plan appears to be certain, and this is almost the only fact which one can hold to have been established with any strong probability as to its purpose and character. I mention it here for the sake of its bearing on a problem which at once suggests itself. At what point ought we to begin to read the two outer circles of writing (ll. 1, 2)!

In answer to this question, we observe, first of all, that two starting-points are excluded: those, namely, which are marked as S.W. and N.W. respectively. The word "and," which in each of these cases precedes the designation of the position of the cross, at once disposes of their claim. Our choice, therefore, is limited to the S.E. and N.E. points. Taking the former, in reading line 1, we begin with the cross of Mark, and find the evangelists named in the order, Mark, Matthew, John, Luke. In the other case the order will be Luke, Mark, Matthew, John. Now in the Book of Multing itself

the Grespel of St John was certainly intended to be placed last, as we know from the fact that it is followed by the colophon. This may seem to decide in favour of beginning the reading with the cross of Luke, and it may appear, moreover, to yield evidence on the question of the order of the Synoptic Gospels in the Book of Mulling —of which, apart from this, we know nothing.

On the other hand, it must be observed that if this conclusion be correct, the order of the Gospels in our manuscript is most unusual -absolutely unique, I believe, among Irish codices, which, with the exception of the Codex Usserianus, agree in this particular with the A.V. Again, we must bear in mind that the device under consideration is a plan, and that the crosses marked on it, no doubt, represent actual stone or wooden crosses erected on the ground. Now it is probable that these crosses were planted in the order which the person who erected them was accustomed to regard as the correct order of the evangelists after whom they were named. But it is quite possible that, in setting up his crosses, he proceeded from right to left, while the scribe who indicated their places on his map could only write from left to right. If we reckon from right to left we get the conventional order, Matthew, Mark, Luke, John, which appears much more likely than the other to have been that adopted by the scribe of our manuscript. The result of our argument, then, is this: The question to which we addressed ourselves is left unanswered; it is impossible to decide whether the scribe began R. 1, 2 at the S.E. or N.E. point; but on the more important problem of the order of the Gospels in the Book of Mulling we have shed some little light: it must either have been Luke, Mark, Matthew, John, or Matthew, Mark, Luke, John, and more probably the latter. I shall presently adduce evidence which will, as I think, convert this probability into something very nearly approaching to certainty.

¹ See Albott's Ecompiliorum Versio Anthicronumiana ce Colive Userimo (Dublinensi), &c. (Dublin, 1884), p. iv. In this M8, the order is that usual in 'Western' authorities: Matthew, John, Luke, Mark, The order, Luke, Mark, Matthew, John, is not mentioned by Gregory, Prolepomean to Tischendoof's N.T., p. 1377 or "N. T. ".

One other fact may be noted with reference to Il. 1, 2. It is obvious that some sort of parallelism is suggested between the four evangelists and certain Old Testament worthies—probably the four greater prophets. It is not very easy to guess what may have been the special features which suggested a comparison between St Mark and Jeremiah, between St Matthew and Daniel; but that the fashion of pairing together saints of different eras, "who were of one manner of life," was congenial to the Celtic mind is manifest from the lists preserved in the Book of Leinster and elsewhere (see Olden, The Church of Ireland, in "The National Churches" series, p. 425). In these lists prominent Irish saints are compared with saints of the Universal Church, especially those mentioned in the New Testament. It is quite possible that similar comparisons may have been instituted between saints of the Old and New Covenants, and that of these comparisons the device before us supplies one example. Possibly those who are versed in the literature of the early Celtic Churches may be able to cite other similar instances

I must content myself with a reference to one passage for a due appreciation of the importance of which the preceding paragraphs will have prepared us. It is the prayer of Colga Ua Duinechda given in the Yellow Book of Lecan (T.C.D. II. 2. 16), col. 336. This manuscript belongs to the fourteenth century, but the prayer is much older—probably contemporary with its reputed author, not long after whose death the Book of Mulling was written. This at least appears to be the view of Dr MacCarthy (Texas. R.I.A., xxvii. 156, 178), who gives the following translation of its first two clauses:—

I beseech with Thee, O Jesus holy, thy four Evangelists who wrote thy Gospel divine, to wit, Matthew, Mark, Luke, John.

I beseech with Thee thy four chief prophets who forefold thy Incarnation, Daniel, and Jeremias, and Isaias and Ezechiel.

The whole structure of the prayer makes it clear that, by naming in succession the evangelists and the major prophets, the writer

¹ It is worthy of remark that one Old Testament saint—"Job of the Patience" is mentioned.

intended to suggest a parallel between them. The prayer is, in fact, made up of a long series of pairings of the same kind. Thus, in the three following clauses we have the nine grades of the heavenly and earthly churches set over against each other, and immediately afterwards the twelve patriarchs, the twelve minor prophets, and the twelve apostles, &c.

Next let us observe that the evangelists are named in the usual order, which we have already concluded to be probably that of the Book of Mulling, viz.: Matthew, Mark, Luke, John. Moreover, the prophets are named in the order, Daniel, Jeremiah, Isaiah, Ezekiel. This can only be because, the evangelists being compared individually with the prophets, Matthew corresponded to Daniel, Mark to Jeremiah, Luke to Isaiah, and John to Ezekiel; or because, the two groups being compared together as groups, Daniel, Jeremiah, &c., was the customary order of the greater prophets in Bibles of the period. In either case, Daniel standing under Matthew in our figure and Jeremiah under Mark, we may safely infer that Isaiah stood under Luke and Ezekiel under John. When we turn back to the MS. we find this conjecture verified in the case of Ezekiel (as shown above l. 2), though none of the letters of this name could have been read without the assistance of the hint derived from Colga's Prayer.

But further, this prayer helps us a good deal towards understanding the purpose of the exterior pairs of crosses. They must be equivalent to an invocation of prophets and evangelists. On the hypothesis that the device is a plan, we may well believe that the crection represented by the circles and the interior crosses was, as it were, placed under their protection by planting round it crosses in their honour.

Yet again, there can now remain no doubt as to the order in which the crosses were erected: whoever planted them proceeded "left-wise" i.e., in a direction contrary to the diurnal course of the sum. We should certainly not have expected this. The Cathach of the O'Dounells was to be "sent thrice right-wise round the army of the Cinell Conaill" in order that they might be assured of victory in lattle (O'Donnell, quoted

A fact which was pointed out to me by the Hon, John Abercromby.

by Reeves, Vit. Col., p. 250). And this is only one instance of a superstition widely prevalent. Other examples may be found in Reeves, Vit. Col., p. 250, note c, and in the first passage quoted on p. 308 from Martin's Western Islands.

A slight difficulty remains to be noticed. The extract from Colga has enabled us to read the name of Ezekiel under that of St John; but we might have expected to find the word Ezekiel without any addition, just as we have Daniel and Jeremiah. On the contrary, between "ezechiel" and "anoir" there are about six letters, namely, 't' (or 'c') and (but these are very doubtful) 'is'—this group of three being preceded and followed by one or two which are illegible. This may be the name of a second person coupled with Ezekiel, or more probably a descriptive epithet of the latter. What the epithet may be I am unable to guess.

But to proceed. We have seen that the device under consideration is a map or plan. But a map, we at once ask, of what? To this question I can give no answer which commends itself to me as altogether satisfactory. A suggestion, however, which has been made to me by Mr Olden is plausible, and at least deserves mention. He is inclined to think that the circles represent the Rath of St Molling, within which were his ecclesiastical buildings; the concentric circles perhaps indicating a double or even triple rampart, as in many royal residences. The settlement of an ecclesiastic, he says, his "city" (cahair, ciritas), was exactly like that of a native chieftain, except that it would be furnished with crosses as an indication of its purpose. In support of this statement he kindly refers me to the Life of St Fintan or Munnu, in which we read that, when the Saint was in the woods (in the Barony of Forth, Co. Wexford), he saw three men, clothed in white garments, who told him, "Here will be your city," and they marked out in his presence seven places, in which afterwards the chief buildings of his city should be erected, and Fintan placed crosses there, (Dict. of National Biography, xix, p. 43 cf. Olden, Church of Ireland, p. 57).

All this is very interesting. It suggests that the crosses in our diagram mark the sites of monastic buildings at 8t Mullius; and if this can be established, the diagram itself will, it would almost seem, lead to the further inference that the buildings within the rampart were dedicated, like modern churches, to the Persons of the Blessell Trinty, or to the Saints. True, on this theory we should expect to find at least four crosses within the circles, this being the inferior limit to the number of buildings within the enclosure (Olden nbi sup.), and I have only perceived three. But I have little doubt that one, two, or perhaps three crosses will come to light when Il. 5, 6, and 8 are fully deciphered.

One primă facie objection to Mr Olden's suggestion may be briefly referred to. Is it probable, it may be asked, that the monastery would be circular, or nearly so, as, on the supposition that our diagram is its groundplan, it must have been ? Reeves indeed asserts generally (17th Cod., p. 361) that the vallum in Irish monasteries "was of a circular figure." But he gives no proof. Possibly the statement is founded on Dr Petric's definition of "Cathair," as, in its primary signification, "a circular, uncemented stone fort," which appears to rest on the somewhat precarious foundation of philology, but which has been accepted by Dr Stuart (Book of Decr., p. exlv). But whatever view may be held as to the normal shape of the vallum, I believe that at least two instances of monasteries, expressly stated to be circular, may be cited.

The first is the cicitas of \$C tuthbert, in Farne Island, which is described for us by Bede (I'it, Cuth., xvii.) in these words,—"Condiditivitatem suo aptam imperio, et domos in hae aeque civitati congruas erexit. Est autem acclificium situ pene rotundum," &c. The second is perhaps open to greater doubt. Adamnan, in the title of the fifteenth chapter of the third book of his Vita Columba, mentions a certain brother who fell "de monasterii culmine rotundi "in Roboreti Campo,"—from the roof of the round monastery at Durrow. In the account of the incident in the text (which is taken from Cummian), the brother is said to have fallen "de summo culmine magnae domus . . . quæ his in diebus in Roboreti Campo fabricatur." The two phrases evidently

¹ Ordnance Survey of the County of Londonderry, i. 213.

² With most unusual inaccuracy Reeves has in his glossary "monasterii culmen rottautan." He was probably misled by Petrie's argument: "Not certainly that the monastery itself had a rotund roof," &c. Certainly not, but there is no mention of a "rotund roof" in the Latin.

describe the same building. What was it? Petrie (Round Towers, p. 382 sqq.), followed by Reeves and Fowler¹, has little doubt that it was the Round Tower of the Monastery. Nor does there seem to be good reason to dispute the interpretation. The two later writers, however, in this advancing a step beyond Petrie, identify the "magna domus" with the "monasterium rotundum." This is, I venture to think, unnecessary and unwarranted. Nowhere else in Adamnan is the word "monasterium" applied to a single building of the civitas, and du Cange gives no instance of the word used in this sense. Even at iii. 8 the "fratrum monasteria," which at first view might appear to mean the cells of the monks, are shown by the context to be several monasteries in the island of Tiree, in one of which lived the "congregatio" of Baithene, "Monasterium," therefore, in the present passage must have the same meaning, unless it is impossible so to take it. I conclude that in "monasterii culmen rotundi," occurring, as it does, in the heading of a chapter, where we might expect to meet compendious phrases, we have a short way of expressing "culmen domus quæ in monasterio rotundo est." The building so described was certainly high ("magna," "major," "altissima," "enormis," so high that a fall from it meant almost certain death; see Reeves, ad lor.); it was probably or possibly round; but the thing which concerns us is, that the monastery at Durrow, with which it was connected, was round, like the civitas of Cuthbert in Farne Island, and the monastery, if such it was, depicted in our manuscript,

One test only occurs to me as applicable to the hypothesis. Does our supposed plan suit the topograhy of 8t Mullins? Can we point to probable sites of ancient buildings or sacred spots marked by the crossess of our scribe? In seeking an answer to these injuriries much help will, no doubt, be derived from an excellent description of the site of the Monastery of 8t Molling, with plans of the present ruins, published by Rev. J. F. M. ffrench in the Journal of the Royal Society of Antiquaries of Ireland, part iv. vol. ii., jifth series, p. 377. But actual trial has convinced me that this paper, by itself, does not supply sufficient material for our purpose. The hypothesis that the scribe of the Book of Mulling gives us a plan of his monastery can only be proved or dis-

Adamnani l'ita S. Columbac, Oxford 1894, p. 144.

proved—if even then—when the ground has been surveyed afresh, with this object in view.

Meanwhile, some help may be given by comparison of devices in manuscripts-especially, of course, Irish manuscripts-which have some appearance of being similar in character to that which is now before us. I am not aware that anything exactly analogous to it has been observed in other codices; but some of which representations have been given in Gilbert's National Manuscripts of Ireland are worthy of mention. The curious circular diagram from an Astronomical Treatise (part iii., pl. xxiii.), which is used to prove that the sun is greater than the earth, will not help us much. But the plans of the banqueting-hall at Tara, found in the Book of Leinster (part ii., pl. liii.), and the Yellow Book of Lecan, fol. 243 (part iii., pl. xxiv.), will perhaps prove to be of some service. And the device from the Corpus Christi Gospels, fol. 5 v° (part ii. pl. xlvi.), may throw some light on the subject in hand. The "wheel-like figure" in the Saint Germain Manuscript (Wordsworth, Old-Latin Biblical Texts, i. p. ix) appears to be of quite a different character from that in our codex. See Rendel Harris, A Study of Codex Bezae, p. 8 sq.

[Since witting this paper I have received a letter from Professor Bernard in which two valuable suggestions are made. They appear to me to be highly probable, and I very much regret that it is not at present in my power to test them by inspection of the manuscript. They relate to the lituagical fragment, and are as follows—

- I. Number (2), which I had read "INo...orm," he takes to be Ps. lxx. (A.V. lxxi.) I-3a, a common versicle in Irish collections of verses from the Psalter. This might be written "IN te ns.; l'etectorem," or "IN te sept-ani," the former of which agrees almost exactly with my reading, while the latter (so far as I can judge without seeing the Ms.) is sufficiently near it, and suits the space rather better, ut, it should be remarked, is very readily confused with m in Irish minuscule writing.
- 2. He directs my attention to an in-edited page of the Liber Hymnorum (fo, 30 v) where we find "Credo in deum patrem omitipotentem usque in finem et patre noster, ascendat oratio" &c. Hence he concludes that number (14) "Ascendat oratio nostra" &c. (Warren p. 227). If the traces of l, 12 in the M8, do not disprove the correctness of this suggestion, I deem it preferable to that which I have offered above, p. 16.]

II.

NOTICE OF A SMALL CEMETERY OF CREMATED BURIALS, WITH CINERARY URNS OF CLAY, RECENTLY DISCOVERED AT CULLA VOE, PAPA STOUR, SHETLAND. BY REV. DOUGLAS GORDON BARRON, M.A., MINISTER OF DESORTAR.

In July of last year, while a party of crofters were engaged in cutting turf on the summit of a small hillock situated near the head of Culal Voc, on the cast side of Papa Stour, they uncovered, almost at the very surface of the ground, a flat stone, which on being raised disclosed a large clay urn, containing burned bones and ashes. At the distance of a few feet a similar stone was encountered, and beneath it a second urn. Unfortunately the Papa mind associates such discoveries with hidden treasure rather than with sepulture. The inhabitants retain many traditions, more or less trustworthy, of hearls of Viking silver having, from time to time, been met with on the island, and they are continually on the look-out for such. Consequently, in the scramble which ensued to secure the possible contents of the different vessels, both were hopelessly destroyed.

Nothing might have been heard of the occurrence had not two coopers, employed at the fishing station of Messrs T. M'Adic & Sons, which is situated on the island, determined to explore the ground further, on their own account. Proceeding to the knoll, they specifyl discovered, at a short distance from the former finds, and barely protruding itself above the turf, a small circle, composed of stones set on edge, and having a diameter of about 2 feet. Here they resolved to dig, and, at a depth of 18 inches, came upon another flat stone, under which there proved to be a third urn. This, with commendable care and patience, they succeeded in removing in its entirety. Subsequent shaking during transit resulted, indeed, in its also going to pieces, and in the loss of a portion of the upper part of one side. Otherwise, the urn, as now restored and presented to the Museum, is practically complete.

Since then, the knoll has, I believe, yielded various urns, all of them marked on the surface of the ground by the significant ring of stones. In course of conversation with one of the coopers, whose interest in the matter did not rest with the discovery which he and his friend had made, I learned that these circles are not confined to the knoll in question, but occur elsewhere and frequently throughout the island. Questioned as to the position and shape of the urns, he informed me that they were all firmly imbedded in the earth, were all large, and of practically the same form. The first urn discovered, however, was of finer clay than the others, and hore marks of ornamentation round the rim. He likewise assured me that he kept a careful watch while digging round the urn he himself uncarthed, but is positively certain that no stone implements or articles of bronze or other metal had been buried with it.

The urn, which is now reconstructed, stands 171 inches high, and is of the usual cinerary form, conical or flower-pot shape below, with a slightly bulging shoulder, and a slight contraction at the neck, from which the lip is again slightly everted. The total diameter at the mouth is 133 inches, narrowing to 12 inches at the neck, and widening again to nearly 15 inches at the shoulder, from which it tapers conically to a base of 43 inches diameter. It is, of course, hand-made, and has been burned in an open fire. No attempt at ornamentation of any kind has been made, but the exterior is fairly well smoothed, and the paste has been slightly mixed with broken stone to prevent cracking. It is interesting as being the third urn of elay from Shetland in the Museum. Cinerary urns of stone, mostly made of steatite or soft micaceous schists, have been frequently recorded from the Shetland Isles, but the only previous examples of cinerary urns of clay are two found on the lands of Kergord, in the parish of Weisdale, by the late Mr D. D. Black, F.S.A. Scot., and by him presented to the National Museum in 1866. They are described by him in the Proceedings, vol. vi. p. 325, as found respectively on the farms of Housegord and Flemington; and he adds that, so far as he is aware, no clay urn has ever previously been discovered in Shetland; at least, he has not been able to hear of any such discovery.

Subsequently, the writer of this notice received another urn found in the same place, which was also acquired for the Museum. It is much broken in the upper part, the interior being a solid mass of burnt bones mixed with hardened clay. It is of the same wide-mouthed, conical, and nearly flower-pot shape as the other, and, like it, quite devoid of ornamentation. It appears to have been originally also about the same size as the other one. The finder, Mr Hugh Hughson, jun, gives the following account of its discovery:—"This urn was found on the same hill as the last one, but there was no circle of stones round it. Like the last one it was not in a cist, but simply placed down in the earth, with about 6 inches of clay over the top of it. No stone tools were found with it, or any trace of metal; nothing but burnt stones and ashes of wood,"

HI

NOTES ON THE DISCOVERY OF A DEPOSIT OF POLISHED STONE AXES AND OVAL KNIVES OF PORPHYRY, ETC., AT MODESTY, NEAR BRIDGE OF WALLS, SHETLAND. BY GEORGE KINGHORN, ST ROLLOX WORES, GLASGOW.

When spending my holidays in Shetland, and residing at the house of Mr Laurence Laurenson at Modesty, about 4 miles north of Bridge of Walls post-office, I was shown three stone axes and three large, oval, and polished stone knives found by his boys in a grassy knoll in front of his house. The knoll is about 20 yards long and 10 yards broad. On the east and west it slopes gently and on the south abruptly, the ground being broken where the axes were found.

The strata are composed of-

- (1.) Grass, turf, and sandy peat, about 8 inches.
- (2.) Yellow peat ashes, about 5 or 6 inches.
- (3.) Decomposed charred wood, about 4 or 5 inches.
- (4.) Subsoil, red gravel, and rock.

The axes were found in the charred wood laver.

About eighty or ninety years ago, previous to his house being built, a bank of peat, about 4 feet thick, had been removed from the site of the house and the knoll, and this may account for the shallow depth at which the relies were found.

As Mr Laurenson intended making a garden on the knoll, I prevailed on him to make a further search, and in doing so he discovered a burial urn of steatitic clay, crushed flat and broken into small pieces. It was partly covered by a flat stone of mill-stone grit, 17 inches by 11 inches by 4½ inches thick, on the top of which is a semicircular concavity 4 inch deep, with parallel sides tapering to the ends. In close proximity he found another stone, nearly circular, $7\frac{1}{2}$ inches by $6\frac{1}{2}$ inches by $10\frac{1}{2}$ inches thick, which fitted exactly to the hollow in the large stone. They had evidently been used for crushing or grinding grain, and were found embedded in the charred wood.

About 18 inches behind the urn, the apex of a stone axe showed itself in the sandy peat, and on pulling it out we found it thickly covered with peat and a netting of fibrous roots. It measures 8 inches by 3 inches by 1½ inch thick, and weighs 1¾ lb, and is in a beautiful state of preservation.

At Engamoor, one quarter of a mile to the west of Modesty, a similar discovery was made about seventeen years ago by the late Mr Peter Irvine, who sent the relies to the National Museum, Edinburgh.

The broch at West Burrafirth is about half a mile to the north-west of Modesty. The ruins entirely cover a very small island about 50 yards from the shore, from which there is a submarine causeway or steppingstones, which are 2 feet deep below low-water mark. They are now covered with seaweed, and can only be seen with difficulty.

The perforated circular disc was picked up on the margin of Loch Houlma, north of Modesty.

About 20 yards to the west of the house are the remains of tumuli, the stones from which had been used for building the house and fences.

I have just heard that the remains of other two urns have been found in the knoll.

[Mr Kinghorn having generously presented to the Museum the portion of this interesting find which was in his possession (see the previous List of Donations on p. 7), and the remaining portion having been also acquired for the Museum from Mr Laurenson, the following is a detailed description of the objects:—

The whole find consists of nine stone axes and the same number of oval knives of popphyritic stone, and of that peculiar form which is known only in Shetland. This correspondence in the number is yet, xxix.

suggestive of the original association of a knife with each axe, whether that association may have been one of personal possession or of sepulchral deposit. The occurrence of three separate clusters of broken fragments of steatite vessels is suggestive of a sepulchral deposit; for

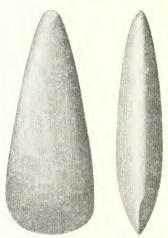


Fig. 1. Axe of hornblende, found at Modesty, Walls, Shetland.

though these steatite vessels are not always sepulchral, they are so in most cases. The stone axes are:—

 An axe of hornblende, sparsely mixed with crystals of felspar (fig. 1). It measures 7³/₄ inches in length by 3 inches in greatest width across the entting face, which is rounded off to a fine edge. It is oval in the cross section in the middle of its length, and tapers upwards to a blumtly conical butt, the whole surface being finely finished and highly polished.

- 2. An axe of porphyritic stone, 9³/₈ inches in length and 3¹/₈ inches in greatest breadth across the cutting face, the cross section a long oval, and tapering to a conical butt. It is somewhat irregularly formed, having some hollows in the surface imperfectly ground out, but the whole surface is well polished except where these hollows occur.
- 3. An axe of diorite, 8\frac{1}{3} inches in length by 2\frac{5}{3} inches in greatest breadth across the cutting face, oval in the cross section, and tapering to a bluntly conical butt. The whole surface is highly polished, but somewhat irregular in outline. It has been broken into five pieces, the breaks being old. Two of them are directly across, at a distance of 1\frac{1}{4} and 3 inches from the cutting edge. The others are splinters taken off the thickness of the implement on both sides, as if to prepare it for a new cutting edge.
- 4. An axe of porphyrite, 6 inches in length by 2³/₈ inches across the cutting face, oval in section, and somewhat flattened on one face, so as to be rather more adze-like than axe-like. It is also somewhat irregular in shape, and abruptly conical towards the butt, but well polished. On one of its edges, near the shoulder of the cutting face, there is an abraded portion, 2 inches by 1 inch, which has been caused by use of the axe, either as a haumer-stone or an anvilsatone.
- 5. An axe of diorite, 6 inches in length by 2¼ inches across the cutting face, the cross section an irregular oval, the hollows not ground out, and the butt irregularly conical.
- 6. Adze of porphyrite, 6 inches in length by 2¼ inches across the cutting face, and tapering to a bluntly rounded butt. It has one side flat, the other convex, the edges rounded, and the cutting edge ground mostly from the convex side.
- 7. Adze of diorite, 6½ inches in length and 2½ inches in greatest breadth across the cutting face, tapering irregularly to a bluntly rounded butt. The implement is flat on one side, and irregularly convex on the other, the edge being mostly ground from the convex side.

8. Short stumpy adze of diorite, 1³/₄ inches in length by 3 inches in greatest breadth across the cutting face, the cross section a long oval, the greatest thickness being 1¹/₂ inch. It has a slightly shouldered and truncated butt, and the cutting edge is ground nearly all from the one face.

9. Axe of porphyrite (fig. 2), of which only the butt end remains



Fig. 2. Axe, abraded by use as a hammed stone, from Modesty, Walls, Shetland.

g. 2), of which only the buttend remains entire. It is 6 inches in length and 23 inches in breadth at the lower end, tapering to a blumtly conical butt. The lower portion, with the whole of the cutting edge, having been broken away, the fractured part has either been used as a hammerstone all round, or there has been a partial re-making towards a new cutting edge, by battering the fractured edges away.

10. Flat oval knife of porphyritic stone, 7\(\frac{3}{4}\) inches in length, 3\(\frac{7}{6}\) inches in greatest breadth, and nowhere exceeding half an inch in thickness, ground to a uniformly smooth surface all over, and having its thinner edge retouched by chipping on one side only.

11. Flat oval knife of porphyritic stone (fig. 3), 7 inches in length by 4 inches in breadth, and nowhere exceeding half an inch in thickness, thinning towards the cutting edge, which is slightly retouched by chipping on one side only.

Mostesity, Walls, Shettland.

12. Flat oval knife of porphyritic stone,
6 inches in length by 3\frac{3}{4} inches in breadth, and nowhere exceeding
half an inch in thickness, thinning slightly from the back to the cutting
edge, which is retouched by chipping on one face only.

13. Flat oblong knife of porphyrite (fig. 4), 7 3 inches in length by 25 inches in greatest breadth, and not exceeding half an inch in thickness, the back nearly straight, somewhat pointed towards one end, and the cutting edge retouched throughout by chipping on one side only.

14. Flat oval knife of porphyritic stone of a bluish-green colour, $5\frac{\pi}{8}$ inches in length by 3 inches in breadth, and nowhere exceeding



Fig. 3. Oval knife, from Modesty, Walls, Shetland.

half an inch in thickness, the back nearly straight, the cutting edges retouched by chipping from one side only.



Fig. 4. Knife of porphyrite, from Modesty, Walls, Shetland.

15. Flat oval knife of greyish porphyritic stone, 4³/₄ inches in length by 2⁴/₄ inches in breadth, and nowhere exceeding half an inch in thickness, the back nearly straight, the cutting edge retouched by chipping from both sides.

16. Half of a flat oval knife of greyish porphyritic stone, 3\(\frac{1}{2}\) inches in length by 2\(\frac{1}{2}\) inches in breadth, and nowhere exceeding half an inch in thickness, the back nearly straight, the cutting edge retouched by chipping on one side only.

17. Half of a flat oval knife of bluish-grey porphyritic stone, 34 inches in length and the same in breadth, nowhere exceeding § inch in thickness, and the cutting edge retouched by chipping from one side only.

18. Portion of a flat and almost quadrangular knife of bluish perphyritic stone, measuring 5 by 5 inches, and not exceeding ³/₂ inch in thickness. It is broken in a curved fracture diagonally, from within an inch of the one corner to within the same distance of the opposite corner, so that only about an inch of the cutting edge remains, which, however, shows the same retouching by chipping from one side only that characterises all the other specimens from this remarkable find.

19. Fragments apparently of three vessels of a coarse steatitic clay, about half an inch in thickness, mixed with very small stones, and apparently also with stalks of withered grass, of which the impressions are visible on the inner surface as well as in the fracture of the thickness of the clay.

20. Two oval masses of clay, about the size of a man's fist, and apparently moulded or kneaded by hand.

 Fragments of charred faggets of branches or roots, from 1 inch to 1½ inch diameter.

IV

ADDITIONAL NOTES RESPECTING THE IDENTIFICATION OF THE SITE OF BEDE'S GUIDL. BY PETER MILLER, F.S.A. SCOT.

In a previous paper I made suggestions respecting the site of Bede's ancient city, Guidi. Further investigations on this subject have enabled me to collect additional evidence from charters and other historical records.

One of the difficulties in the way of identifying the localities of places mentioned by old writers and in ancient charters, is owing to the variations of spelling that the old names have undergone in the course of time, and also to the translation of the name into a different language from the original. Some writers do not even spell the names two times alike in the same document. The name we are concerned with at present is spelt by Bede, in 730, Guidi, In Forbes' Calcular of Scottish Saints it is stated that St Vigean, or Fechin, built a church at a place called Ydar-Guidhe, in Mayo, Ireland. This saint was alive during Bede's lifetime. Nennius, in the tenth century, wrote the word Indea. These differences in the spelling of the same word by these authors are easily accounted for. Bede's, being the earliest and best authenticated, is the most reliable, and his form Guidi is obviously the Latinised form of the Welsh word; for it is his usual mode to render Celtic place-names into Latin, as in the case of urbs Coludi, now Coldingham. Two or three centuries after Bede's time one of the continuators of Nennius spells the word Iudeu. Most authorities are now at one as to the identity of the place indicated by the variant names, Guidi and Iudeu,-the difference between the two being easily explained on phonetic grounds. It appears to have its origin in the pronunciation of Bede's form of the word with the initial g aspirated, and Nennius' spelling is simply the phonetic rendering of the word used by Bede, 1 In Wichi's translation of the New Testament, 1380, the place-name Gethsemani is spelt Lessamony, in all the other translations into English it is written Gethsemane. This changing of the initial G of the word into Ie has a double significance.

¹ Leland, in his Collectanca, vol. iii. p. 123, in quoting Bede, uses the word Yidi, and on the margin has alias Guidi.

as it shows that the rule was not exclusively applied in the Celtic languages, but was common to the Anglo-Saxon as well; and that it must have been so used when the name Cariden was first applied to that parish about the year 1140.

The earliest form of the Saxon rendering of Caer Guidi and Iudeu is found in the Holyrood Chartulary, 1145, where we have *Kaxedyn* and *Karreden* in the same charter (No. 9).

When we come to the charter history of the district in which the parish of Cariden is situated, there seems to be sufficient evidence to show that Bede's city of Guidi was situated in that locality. Besides Bede's notice of that city, there is mention made in the Book of Lecain. in the 9th century (as quoted by Reeves in his British-Uuldees), of the Guidan Sca, which has Culen-Ross (Culross) and the Ochills on its north side. The charter history of the locality confirms the idea that Guidi was situated on the south-side of that sea. Now, the parish of Cariden is directly opposite to Culross, and the high-lying land that forms the parish of Cariden has always been called Eryngaith 1 or Ardyngaith, and is so called at the present time. In 1315, when Walter Stewart married Marjory, the daughter of King Robert Bruce, besides the other heritages in that locality conveyed in her marriage-contract, there were included the lands called the Brome, near the loch of Linlithgow, the lands of Bondington, with the lands of Eryngaith, near Linhthgow. In the Calendar of State Papers relating to Scotland, vol. iii, p. 388, it is stated there was no income from the lands of Bondington and Amegaith. as they were unlet in the year 1337. In 1334, the Earl of Morton has a charter from Robert, Seneschall of Scotland, of all the lands of Bondington and Erngeyth. These two lands go banded together for a time, and afterwards it is the lands of Bondington and Blackness that are conjoined, and subsequently the name Eryngaith is dropped altogether, but the lands of Bondington (now Bonytoun) continue to the present time; the lands of Eryngaith having obviously become absorbed under a different arrange-

¹ The suffix gaith in Eryngaith is not peculiar to this locality in Linlithgowshire as a place-name. These forms exist in different localities, widely separate. In Cumberland there is a Culgaith; in Perthshire there is a Kinguide, Kingath, and a Stragaith (now Blackford); in Stirlingshire, Auchingaith, and the Wards of Gudy.

ment, arising out of the repeated changes of proprietorship.\(^1\) According to the marriage-contract of Marjory, daughter of Robert Bruce, most if not all of the property of that district was Crown property, and Blackness appears to have always been a royal castle.

In the additions to Nennius' History of the Britons it is stated that Oswi, King of the Northumbrians, slew Penda in the field of qui, and now took place the slaughter of qui Campi, and the Kings of the Britons, who went out with Penda on the expedition as far as the city of Indeu, were slain. Bede also gives a circumstantial account of the battle of Winwedfield, which Dr Skene thinks was fought in the vicinity of the river Carron, near Camelon and Denny. The Pictish Chronicle has the straps quii Campi—the Chronicle of Tigernach and the Annals of Ulster confirm the victory obtained by Oswi over Penda, while Bede says that the war was terminated in the region of Loidis (Lothiam).

This place-name gai Cumpi, where the slaughter of the Saxons by Oswi took place, is obviously the rendering in Latin of two foreign words. That event took place, according to all the authorities, after the battle of Winwedfield, and when the war terminated in the region of Loidis, according to Bede, in 656. All the authorities seem now to agree that Bede's Guidi and Nennius' Indea are one and the same: that being so, the Latin word gai can be readily traced to its Celtic origin in the name of the district already referred to in the parish of Cariden 2 Ergmgaith or Ardyngaith. In the pronunciation of the Gaelic word the th in the suffix gaith is not sounded, and accordingly such words, where written phonetically, loss the th.3

¹ In 1488, according to the Register of the Great Scal, the coal or coal-heach of the King in Ardyngaith, near Linlithgow, was leased.

² It is evident that the spelling of Cariden has been formed from Nennins Inden, where the initial \$G\$ has been changed to \$L_0\$, and lastly into cir in the twelfth century, previous to Nennius' time, it must have been Caignidde. It is carious to observe that for seven centuries in this parish there have been, side by side, two places names derived from the same root word,—the one Eryngaith, inhedded in the charter history of the land of the parish itself; while the name of the parish has existed all that time in an obscure form, from the incorrect pronunciation.

³ Ardgaith in Aberdeenshire, contracted into Ardgay and Ardgie; also in Ross-

According to Joyce, the word quith-qui is applied also to an arm of the seashore as well as the wind (gecha)—Dun-geha, instead of Dun-gaith, the fortress of the wind (Joyce, vol. ii, p. 247). As the gai of Nennius can only be referred to the same rule, it follows that guidhi and gaith are only variants of the same name. The earliest form of the name occurs in Nennius' Historia Britonum: - Cair Manan Guid - the Campus Gai; the field of Guidi—the district between the Avon and the river Almond, that is, Linlithgowshire. The idea that Guidi was situated on the Island of Inchkeith is a mere inference unsupported by any evidence whatever, and is simply a guess at the meaning of an obscure expression used by Bede in describing the eastern inlet or sea, which had Guidi in its midst. Now, in opposition to that idea, we have the positive evidence of two authorities, one of whom, on the question of locality in this particular case, is superior to that of even Bede. Bede's statement is susceptible of two meanings. The scribes who wrote the charters conveying the lands of Ervngaith (the lands of the Hill of Gaith) as being near Linlithgow must be held as knowing more about the Hill of Gaith than Bede himself; and the highlands between Linlithgow -Blackness-and the Guidan Sea of the Book of Lecain were as much in the middle of the eastern inlet of the sea, considered lengthwise, as luchkeith is in the opposite direction; and the existence of two old cities of the same name, so near each other, is highly improbable. Besides, the evidence of the charters is confirmed by the Book of Lecain, which tells us that Culross and the Ochills were situated on the north side of the Guidan Sea, while the charters inform us that the Hill of Gaith was on the south side of it, so that there seems ample authority in their united testimony to the exact locality of the city Guidi. Blackness has been a royal eastle from time immemorial, and the presumption is that it marks the site of Bede's ancient city.

shire and Elgin; Balgaith, in Forfarshire, is Balgay; so, in like manner, Aryngaith would be Aryngay. There is a place called Milhgavic, not far from Glasgow, that is treated in the same manner,—it is pronounced Willigay. V.

NOTICES (1) OF A BRONZE CENSER (*) OR CHAFING-DISH, FOUND NEAR BALVENY CASTLE, AND (2) OF A FIND OF COINS IN THE PARISH OF MORTLACH. BY W. CRAMOND, LL.D., CULLES, F.S.A.SCOT.

Browe Conser or Chaffug-Disk,—About four years ago the bronze article which is now submitted to this meeting was found near Ralveny Castle, parish of Mortlach, Ranffshire. It was observed projecting from the ground at the foot of the slope forming the outer bank of the old moat, about 20 or 30 yards west of the great wall of the castle. As will be seen from its representation in fig. 1, it is a shallow vessel of bronze or brass, standing on a foot-stalk, circular in shape, over 6 inches in diameter at the mouth, and weighs about two pounds. On each side is a small circular aperture, one-fourth of an inch in diameter, through



Fig. 1. Vessel of bronze or brass, found near Balveny Castle, Banffshire. (1.)

which chains may have passed for suspension. Around the circumference are six sets of small openings, apparently for the admission of air, each set consisting of five openings, arranged in the form of a cross. The upper rim has six indentations, to correspond, it is supposed, with projections in the cover. The cover, however, has not been discovered. The only conjectures that have been made as to its probable use are that it may have been a censer, or a brazier for burning charceal. It may be added that the ancient church of Mortlach is a considerable distance from the castle, but it is not improbable that there was a chapel in connection with the castle in pre-Reformation times. The article is now the property of the Catholic Church, Dufftown,

Finds of Coins at Mortlach.—Tradition assigns a remote antiquity to Mortlach as the seat of a bishopric antecedent to that of Aberdeen; but the true character of the early charters in the Register of the Bishopric of Aberdeen being now admitted, Mortlach has been shown of its ancient glory. Its holy wells are as much appreciated as ever they were, but it is for a different reason.

From time to time Roman and other coins have been found in this locality, all tending to support its reputation for antiquity. Many of those discovered of late years have again disappeared, and the following notes have therefore been drawn up to anticipate the disappearance of others.

Last July two small copper coins were found at Pittyvaich House; one now, I understand, in the Museum of the Society of Antiquaries, Ellinburgh, was identified by the authorities of the British Museum as a coin of Mareus Aurelius, a.p. 160–180; the other as having been struck at Alexandria in the middle of the third century.

A copper coin now submitted and presented to the Museum was found a year or two ago at Duffown. It is a coin of Antoninus Pius, a.p. 138, and weighs 210 grains. On the obverse is the head of the Emperor, with the legend "Armenia." On the reverse is a Roman soldier, with the letters S.C., the rest being illegible. One meets with few Roman coins so old as this. Of those we have recently seen, the best is a gold coin of Vespasian (a.p. 69–79), found at Inveruric, and now in the possession of Mr Tait.

The next coin here submitted belongs to the reign of Maximinus, c. a.d. 236. It is of copper, and weighs 140 grains, but the inscription is almost illegible.

Another coin from the district is a bronze coin of Byzantium, of the later period, of an irregular shape, the cross very distinct, but the inscription illegible. Weight, 120 grains. By favour of Mr John Shand, teacher, Mortlach, I am enabled to present to the Museum the two coins last described. There is here also exhibited a silver penny of Henry III. (1216-1272), which was found a few years ago in the manse garden of Mortlach, and is now presented to the Museum by the parish minister—Rev. J. B. Cumming.

The chief "finds" of coins in the parish in recent years were those made in 1877 and 1879 by workmen digging for sand in the sandpit of Pittyvaich. The coins were close under the surface, and at two different parts of the sandpit. Over the top of one lot was a stone, now lost, with the inscription " M & W," and some figures cut thereon. One of the "finds" consisted of seven large silver coins larger than a crown, and four somewhat smaller than a florin. Report has it that there was also a "goupenfu" of small silver pieces, but I have been unable to discover any trace of these. There were certainly some small silver pieces found in riddling the sand, but they have all disappeared. Of the large pieces, the whereabouts of four is known, and that, I believe, is all that can now be traced. There is good authority for believing that the wife of Alexander Duff of Keithmore, ancestor of the Duke of Fife, hid her treasures in troublous times, some two centuries ago, close to a burnside in Mortlach, and the very spot is still pointed out. It was therefore naturally concluded that this was a similar case, especially seeing that the coins seemed to be of about the same period, and some of them, moreover, were Spanish dollars, which fitted in admirably with the events in the lives of some soldiers of fortune belonging to this parish. One coin from the find which the writer lately discovered (and which is now submitted) bears a date which altogether overthrows this theory, and compels us to have recourse to a less romantic one.

Of the four large silver pieces one is a 40s. (Scots) piece of William and Mary, of date 1690-94. On the obverse are the heads of these sovereigns, with the inscription—gulelays. Et. Maria. Dei. Gratia, with "40" under the busts to denote the value of the coin. On the obverse—rex. Et. Regina. Mag. Br. Fr. Et. Bib. The next is a fine coin of Ferdinand 11I, Emperor of Germany, 1637-1637. On the reverse is the inscription—ferdinandvis. III. Dg. Romano. IMP. S.A.; and on the obverse—1646. 1q. Nova Civit [Strall] sundersits. The next appears to me to be a coin of the Archbishop of Cologue,

Elector of the German Empire. It bears on the obverse—Max.Her., D., G., ARC., COL., PRIN., EL., and on the reverse—CO., LO., HO., EY., ET., PRINC., LEOD., DUX., BYL., MA..., 1671. The last of the four coins is, I presume, a Bolivian dollar. It has on the obverse—For LA CONSTITUTION, with the head of Bolivar and the word BOLIVAR, while on the reverse appears—HERCHBLAI BOLIVAIA 1837.

This coin, then, of date 1837, and found in the sandpit of Pittyvaich in 1877 or 1879 along with these other ancient coins, compels us, for want of a more charitable explanation, to suspect that the coins were surreptitiously obtained and hid in that spot, but the spot could not afterwards be identified by the depositor, or circumstances prevented his calling for his deposit. It is extremely likely that the coin of Marcus Aurelius, though found at Pittyvaich House, was corted thither among gravel to that place from the same sandpit. The connection with Spanish history of one family in this county, and the well-known collection of coins and medals that that family at least once possessed, point the way to a possible solution of the mystery.

It would be very curious if it should be established that this sandpit of Pittyvaich, by disgorging its surreptitiously-obtained Roman coins and Spanish dollars, has been the means of accrediting Mortlach with an antiquity as unreliable as certainly did, in former times, the pages of Boece and the charters of the Bishopric of Aberdeen.

One other coin of somewhat old date has been found in Mortlach. It is a silver "shilling" of the Commonwealth, found at Recletich, and now in Elgin Museum. Its date is 1652.

Monday, 14th January 1895.

Professor DUNS, D.D., in the Chair.

A Ballot having been taken, the following Gentlemen were duly elected Fellows:—

WM. Bilsland, 28 Park Circus, Glasgow.
WM. Kirk Dickson, Advocate, 19 Dundas Street.
Robert F. Watson, Briery Yards, Hawick.
Jas, T. Hetchison of Moreland, 12 Donglas Crescent.
WILLIAM NIXON, Solicitor, 2 Duddhope Place, Dundee.
Alexander Gide, 12 Antigua Street.
John Scott, C.B. Hawkhill, Largs, Avrshire.

The following Donations to the Museum and Library were laid on the table, and thanks voted to the donors:—

(1) By the late W. S. Thomson Sinclair of Dunbeath, F.S.A. Scot.

The Yett or Grated 1ron Door of Dunbeath Castle, Caithness. This is a large and fairly well preserved example of those wronghteiron Yetto or Grated Doors which were so generally used in the Scottish castles of the fifteenth and sixteenth centuries. It measures 5 feet 6 inches in height by 3 feet 7 inches in width, and has two massive bolts. Dunbeath Castle was taken by Montrose, after some days' siege, in 1650, and garrisonel for the King; but retaken by Leslie after the defeat of Montrose at Carbisdale shortly thereafter.

- (2) By Duncan D. Hepburn, Highgate Road, London. Horse-Pistol, turned up by the plough on the field of Sheriffmuir.
- (3) By M. G. Morenead, Swillington House, Leeds. Human Skull, dug up at the Kirkheugh, St Andrews.
- (4) By J. Macfie, 14 Hope Terrace. Bodle of William HI. and Mary.

By John Shand, Schoolhouse, Dufftown.

Small Brass Coin of Maximinus, and one of a late Byzantine coinage, found in the parish of Mortlach.

(6) By Dr Wm. Cramond, Cullen, F.S.A. Seot.

First Brass Coin of Antoninus Pius, found in the parish of Mortlach.

By Rev. J. B. Cumming, B.D., the Manse, Mortlach.

Silver Penny of Henry III, of England, found in the parish of Mortlach.

[See the previous communication by Dr Cramond,]

(8) By J. W. Cursiter, F.S.A.Scot., the Author.

List of Books and Pamphlets relating to Orkney and Shetland. 8vo. Kirkwall, 1894.

By the Keeper of the Records of Scotland.

Register of the Privy Council of Scotland, vol. xi., 1617-19; and Register of the Great Seal of Scotland, vol. viii., 1620-33,

(10) By David Robertson, F.S.A. Scot., the Author.

A Brief Account of the Clan Donnachaidh, with notes on its history and traditions. 4to, Glasgow, 1894.

(11) By the Trustees of the Museum, Carnac.

Catalogue du Musée J. Miln, à Carnac, Morbihan, France. Svo, Vannes, 1894.

(12) By the Trustees of the Museum, Thornhill.

Catalogue of Dr Grierson's Museum, Thornhill, Dumfriesshire; compiled by Geo. F. Black, of the National Museum of Antiquities, Edinburgh, and Joseph Bisset, A.R.C.S. Lond. 8vo, 1894.

(13) By the University of Aberdeen.

Catalogue of the Books in the Wilson Archæological Library in Marischal College, Aberdeen. https://doi.org/10.1007/j.pc.1894.

There were also Exhibited:—

By Rev. W. L. Christie, The Parsonage, Stonehaven.

A Tableman of Bone, with grotesque carving of a Centaur. This quaint piece of carved bone, the history of which is not known, is hereshown of the full size in fig. 1. The carving is so rude that it is difficult to assign it to any particular

difficult to assign it to any particular style, but in some respects it might be taken either for Irish or Scottish work.

(2) By Dr Wm. Frazer, Dublin, Hon. Mem. S.A. Scot.

Bronze Medallion of Oliver Cromwell, which originally belonged to Whalley the Regicide, and was supposed to have been made by Thomas Simon from the wax model prepared by him for the Dunbar Medal. [See the subsequent paper by Dr Frazer.]



Fig. 1. Tableman of bone, from Stonchaven. (1.)

(3) By John Simpson, Wick, through Charles Bruce, F.S.A. Scot.

Stone Axe-Hammer of basalt (fig. 2), 4_8^2 inches in length, 2_4^2 inches in greatest breadth, and 2 inches in greatest thickness opposite the shaft-hole in the centre. The sides are greatly hollowed, till the breadth to be pierced by the shaft-hole does not much exceed an inch, and the hole has been pierced from both sides, beginning with a diameter of about an inch at the outside, and narrowing to about half an inch at the centre. The edge is nearly semicircular, but not sharp, and the butt- or hammer-end is brought to a flattened oval of about $\frac{3}{4}$ inch in its longest diameter. The form is not a common one Vol. XXIX.

in Scotland. It was found in the bed of the estuary of the river of Wick, near the back of the North Quay, a good many years ago. Another form of Stone Axe-Hammer from Caithness is figured on p. 6 of the present volume, and a third will be found figured in the *Proceedings*, vol. ix, p. 245.

Molar tooth, apparently of Etephas antiquus, found in the bed of the river-mouth at Wick, Caithness, not far from the place where the

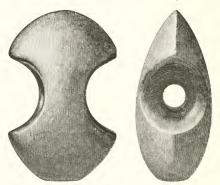


Fig. 2. Stone Axe-Hammer, found in the bed of the river-mouth at Wick, Caithness. (2.)

stone axe-hammer above described was found. Mr Charles Bruce, F.S.A.Seot., discussing the probable reason of such a tooth being found here, says:—"My conjecture is that it came from the wreckage of a trawler that had been totally lost in Wick Bay, and in the immediate vicinity of the place where the tooth was found, some months prior to its discovery. Bones and teeth of primeval animals are frequently brought up from the sea-bottom by trawlers in the neighbourhood of the Doggar Bank, and are commonly sold in the curiosity-shops of Grimsby, Lowestoft, and Yarmouth. A comparison of the tooth with those in the skull of *Elephas antiquas* in the Forres Museum will, I think, show that it belongs to that species."

The following Communications were read:-

I.

A RECORD OF THE CUP- AND RING-MARKINGS IN THE STEWARTRY OF KIRKCUDBRIGHT. BY FRED. R. COLES, CORR. MEM. Soc. ANTIQ. SCOT.

In the sixteenth volume of the Proceedings of the Society, Mr J. Romilly Allen contributed an important list of the then "undescribed stones with cup-marks in Scotland;" but at that date (1882) the Stewartry was credited with only two sites-the rock at High Arvie and the stone at High Auchenlarie, attention to which was first drawn by the late Sir J. Y. Simpson. The next notice, by the late Mr George Hamilton, marks an epoch in the history of our cup- and ring-marks. In the autumn of 1886, the discovery on a field at Milton, by William Thompson, of a most interesting group of these scribings, drew the general attention of local antiquaries to the subject, and each succeeding month added new sites to our ever lengthening list. The record now submitted to the Society contains a description (as brief as possible) and an accurate drawing of every important cup- and ring-marked rock or stone which came to my knowledge up to the date of March 1893. Other observers, especially Messrs E. A. Hornel, William Thompson, D. Corson, have helped largely towards this result; but in every case I have measured and drawn the sculpturing myself, frequently paying more than one visit to the spot, so as to examine the markings by different

Till quite recently it was held that these unique rock-scribings were confined to one very narrow strip of the shore on both sides of the river Dee, all the sites being comparatively near to the sea—say, within three miles. The very remarkable series, e.g., at High Banks, on the east of the river (casts of some of which are in the Museum), are a bare mile and a half from the nearest tide-mark. Those which occur in the Milton parks are within nearly the same radius; while, at Balmae, many peculiar forms are found within a couple of hundred yards of the sea. Again, on the west of the river, one mile exactly inland, are others on the land of Senwick; and at Auchenlarie and Bardristan in Anwoth, seven or eight miles further west, in addition to the sites mentioned by Simpson, there are several other groups, occurring on loose stones as well as on rock. As recently, however, as 25th June 1892, quite a new group was found at Nether Linkens, six miles inland from Balcary Point, and nearly four miles north-east from the previously observed most inland group at Castle Creavic.

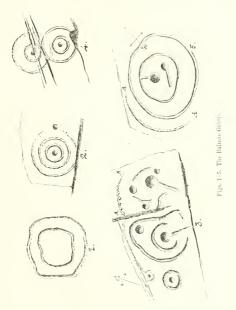
The drawings accompanying this notice are—unless otherwise stated—done to a uniform scale of one-twelfth. In every case I have drawn and measured the sculpturing on the spot, noting also the form, composition, and inclination of rock or detached stone on which they occur. A feathered arrow indicates the direction in which the sculptured surface slopes, and the orientation is shown in the usual manner.

The cup- and ring-markings are comprised under several groups, and to treat of them in this style will be simplest and most consistent with their known distribution.

I. THE BALMAE GROUP.

This, the most southerly group, contains very varied sculpturings, all on solid rock, which here is of the finest-grained glaciated whin-stone, so common throughout many districts of the Stewartry. Fig. 1 shows two concentric ill-formed rings, believed to be the most southerly ¹ in the country. The rock inclines slightly towards the west. It is about a hundred yards south of Ross View Cottage. The "circles" here figured

With the exception of some discovered (since this notice was written) on rocks below high-water mark on the island called Little Ross, at the mouth of the Dec.



are 17 and 10 inches in diameter, and are much worn down. Fig. 2 shows a group—also very indistinct—cut on a small rock not many score yards N. of the first, and containing three concentric and well-formed

rings, with central cup, and cup outlying; the overall diameter being 13 inches.

Fig. 3, which lies but a few yards from Ross View Cottage, on its N.W., is much more complex, eight cups being associated with four rings and several grooves, both straight and curved.

In fig. 4 we have an interesting variety in the form of overlapping circles, the rings being specially well formed. This rock-surface is

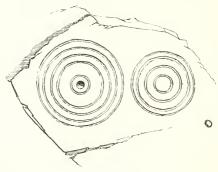


Fig. 6. Balmae,

much split up by sharp, deep fissures, and its general inclination is south-westwards.

Fig. 5 represents a sculpturing to the W. of the last, on an almost flat rock. This was imperfectly figured in Mr Hamilton's paper (Proceedings, vol. ix. p. 157), because at the time that drawing was made, the outermost segment (A A in diagram) had not been observed. During further investigations, I so frequently found this peculiar feature—an unfinished outer groove—that I do not think I am wrong in attaching some importance to its presence. Other "cups" may be seen on rocks close to these, and are claimed by some as artificial, but my opinion is that they are weatherings, occurring, as they do, too regularly in the line of cleavage to be void of suspicion.

Fig. 6 shows two sets of concentric rings, one having four, the other five and a central cup. The rock bearing these is some three hundred yards S.E. of Bulmae House. It is smooth, and slopes to the W. at an angle of 40°. The largest ring is 24 inches in diameter.

 A rock immediately below, also having a like inclination to the W₂, bears a group of five concentric rings, the outer one being 18 inches in diameter.

8. To the N, of Balmae House, on the home-fields, is a very much worn cup and partial ring. The centre of the cup is 13 inches from the upper or N.E. corner of the rock. The cup measures 5 inches across, and the ring must have been about 7 inches.

 Farther N. and W., and higher up, is a single cup on the corner of a rock, in much the same position as the last. It is 2 inches wide, 1 inch deep, very clear and well defined.

II. The Knockshinnie Group.

This curious sculpturing was found by Mr Hornel in February 1887. It lies on the summit of a hill 300 feet above sea-level, facing N.E. Probably owing to its position, this sculpturing is extremely weathered (fig. 7).

HI. THE TORRS GROUP.

Two separate localities are included in this.

 That nearest the sea (on the Well Hill) is a mass of rock, measuring 9 feet by 3 feet, W. of and not very far from the Ewebughts. The much worn condition of the sculpturing renders examination very difficult; but it appears to consist mainly of shallow cups 1 inch wide, very numerously scattered about; a groove follows the edge of the rock and connects two cups, one of which is surrounded by a ring. The rock has a slight inclination eastwards,

2. This group is on an almost flat rock-surface, 6 or 7 yards N. of the wall of Torrs farmhouse (see fig. 8). Near it, on the E., are surfaces quite as smooth and far broader than this space, which measures over all but 30 inches by 18—and yet on none of them is there a vestige of any sculpturing. At mm in the diagram the two ends of an encircling groove touch the edge of the rock, here flush with the summit of the hillock.

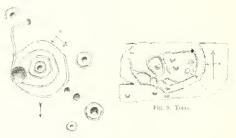


Fig. 7. Knockshinnie,

- 3. Two feet three inches castwards, on a portion of the same rock, 3 inches higher, and also flat, are two small cups, joined by a straight groove 4½ inches long, and running E. and W.
- Three feet S. of this is a vague, nearly complete, ring, crude and uneven, with a dot in its centre, on a small flat rock, on a level with the rest.
- 5. Eastward 66 feet, also on flat rock, are two small and very shallow cups, due N. and S. of each other, 5½ inches apart. There are other dots and small marks picked out apparently round these two, which suggest the notion that here a group was about to be cut, but abandoned.

- 6. Next, E.S.E. of the upper of these two cups, and 8 feet 6 inches distant, is a very unusually fine cutting. It occupies a small, squarish (natural) hollow in the rock, and has, no doubt, for long had the advantage of being turfed over, hence the remarkable clearness of its lines. It presents a cup 2 inches wide and two rings 5½ and 8½ wide. Neither cup nor ring is particularly deep, but the sharpness with which the edge of rock is left between each separate grooving is very noticeable, added to which is the almost mathematical circularity. Nine inches S.S.E. is a clearly-cut cup, without a ring.
 - 7. Thirteen feet N.N.E, of the ringed cup just noted is the design



Fig. 9. Torrs.

shown in fig. 9, which speaks for itself. The rock has a distinct slopcastwards. The outermost rings measure 10 and 8 inches in diameter.

IV. THE GRANGE GROUP.

This group, containing the somewhat novel designs shown in the five following diagrams, was noticed in August 1892, when, with the assistance of Mr Dudgeon, I removed several square yards of turf, and brought to light sculpturings scarcely less interesting than, and quite as well preserved as those at High Banks.

The site of the first sculpturing (see fig. 10) is in the remote south

corner of the Dam Park, on the lower part of an extensive bulky ridge

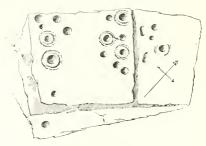


Fig. 10. The Grange.

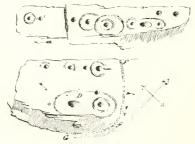


Fig. 11. The Grange,

of whinstone sloping in all directions; another set (fig. 11) is close to

this, while the summit bears the forms shown in fig. 12. What most strikes an observer in all these groups is the appearance of remarkably large and deep cups, and the placing of cups, sometimes with rings, within a long elliptical groove. On the summit-rock (fig. 12), however, there is, in ablition, the peculiarly distinct pick-marked groove (G G') carried down the slope, then up and round, encircling one cup and almost entering another. A second groove, left in the same initiatory stage, is carried from F' to F, also downwards. At its lower end are

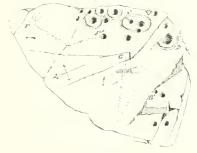


Fig. 12. The Grange.

numerous small picked holes, evidently the first dotting-out of the contour of a cup.

About a mile up the road from the Grange towards Townhead School, in a high field (350 feet contour-line) S.E. of the cottage known as Blackhill, and some 59 yards distant from it, there is a solitary uneven lump of whinstone, having one fairly flat surface a little more than 3 feet square. On it occurs the very curious design shown in (fig. 13). The four outlying cups and rings are almost exactly placed to form a rhomboid, while the distance from the centre of the large saucer-like depression to the S.E. cup is just twice that to the S.W., the other two cups being equidistant.

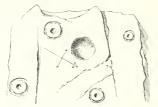


Fig. 13. Near Townhead School.

Near Gilroannie, in a field to the S.E., close on the edge of a quarry, there are the two cuttings shown in fig. 14—an oval and a horse-shoe shape, the latter enclosing a small cup. The rock slopes steeply to the N.E.



Fig. 14. Gillroannie.

Fig. 15. Milton Park.

V. THE MILTON GROUP,

Under this head I place all the sculpturings, which cover a large number of isolated rock-surfaces, in the fields known as the Milton Parks. Here there are six separate localities, four of them on the east of the long dike here dividing the fields, bearing each either a simple or a very complex design, and apparently lying, in regard to each other, in no systematic order.

 The first sculpturing (fig. 15) is on the top of a lumpish rock, and shows four concentric rings, with central cup and three other cups, with a perfectly straight groove connecting two.

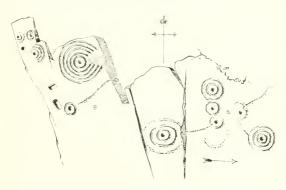


Fig. 16, Milton Park.

- Two very much worn rings, 4 and 7 inches wide, round a small and shallow cup—the whole extremely vague,
- 3. The very remarkable set of cups, rings, and grooves shown in fig. 16. There are, in addition to these features, two small oblongs close to the largest ring group. This rock slopes downwards and eastwards, nearly one in three.

- 4. On a rock jutting up some 4 feet above the grass. At its W. corner is a cup 1 inch wide, partly surrounded by a groove, perhaps an intentional semicircle, 3 inches in diameter.
- On the W. of the dike, and touching it, is the flattish rock bearing the very clear and peculiar design shown in fig. 17. The finding

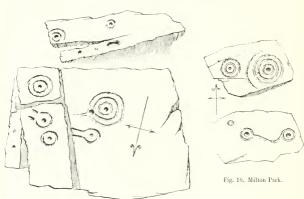


Fig. 17. Milton Park.

of these sculpturings by Mr Wm. Thompson was the incentive to our more thorough searches for cup- and ring-marks in the Stewartry.

6. The last site is N. of Low Milton, but my drawing (fig. 18) does not show these two rocks in their actual relative positions. They each face westwards, and in each the cups lie due E. and W. of one another.

VI. GALTWAY AND HIGH BANKS GROUP.

At Galtway, as at Dunrod, we are again on traces of earlier human habitation; for here, too, there was a thriving village, known to have

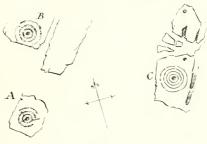


Fig. 19. Galtway.



Fig. 20. Sculptured Rock, Galtway.

been inhabited during the Irish Rebellion of 1641. Heaps of its ruins, now all grassy, may be seen in many directions. 1. Towards the west of the village precincts there is, on a piece of flat, coarse-grained, sand-stone-like rock, a cutting consisting of a central cup, 1½ inch wide; a nearly complete circle, 4 inches wide; two-thirds of another circle, 6½ inches wide; and a segment of about a fourth, which lies N. of the rest, and would make a circle 11 inches in diameter. See fig. 19, A. Three short shallow grooves run radially out,

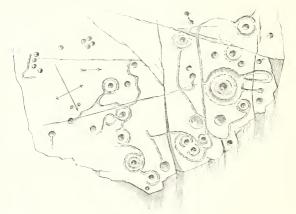


Fig. 21. Sculptured Rock, Galtway.

as shown in the drawing. Associated with this are two other sets of concentric rings, with central cup (B and C, fig. 19)—the circles of the latter being extremely weathered. This last is almost equidistant 10 feet from B and A, and in reality lies due E. of A.

- The next group occurs several hundred yards to the E., at the base of cairn-crowned Galtway Hill. See fig. 20, sculptured Rock.
- Sculptured Rock—also at the base of the same hill—shows a wonderful variety of sculpturings, and is perhaps the richest piece of rock surface in the Stewartry. (See fig. 21.)
- 4. Sculptured Rock—occupies a higher site than the last, and to the E_n of it. My drawing (fig. 22) shows to what a very different result these detached surfaces have been used by our archaic sculptors.¹

The two fine sets Λ and B are among the most perfect specimens

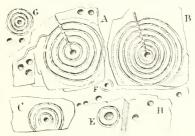


Fig. 22. Galtway.

we have of clear and regular concentric cutting. A occupies a "saddle-back" rock; its greatest diameter is 12½ inches. In B the largest ring measures 20 inches across. The peculiar incurving of its rings is very marked.

High Bauks.—The cup- and ring-markings at High Banks are now well known; partly through the excellent casts taken (as mentioned in Mr Hamilton's paper) and presented to the Museum.

There are, however, many more sculpturings on a portion of this

¹ These scribings occupy in reality a space of rock about 12 feet square. In my drawing they are compressed.

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same rock-surface which the easts do not include. The plan next shown (fig. 23) is meant to supplement the illustrations in Mr Hamilton's paper. It represents the higher, nearly level surface N.E. of those. If the solitary group of two rings and cup (L), at the extreme left of my plan, were placed 3 feet N.E. of the edge of fig. I in Mr Hamilton's paper, we should arrive at a correct understanding of the arrangement and general disposition of this extraordinary specimen of cup- and ring-markings. Many of these lie in an almost direct line (A D F II) N.E. and S.W.; many others are clustered in threes, in a manner which seems peculiar to the locality.

On a small flat stone unearthed during the excavation of the South Cairn in the Woodfield, a single cup was noticed. The stone was not preserved.

VII. CASTLE CREAVIE AND BOMBIE GROUP.

The next drawing shows somewhat unusually distributed cups and rings, which occupy three separate rock-surfaces on a very hillocky sixty-acre field, known as the Rough Tongue of Bombie. This particular ridge of rock is the one nearest the public road; and X. of it, and but a few yards distant, trending N.E., is an old road, marked by a tall hedge and fallen dike. All these sculpturings, except



Fig. 23. High Banks.

the two at K (fig. 24), have been greatly weathered, and are barely visible but at sunrise or sunset. Thick turf has protected the two at K; and as the west edge of this rock has been quarried, it is possible—as was certainly the case at High Banks—that pieces bearing sculpturings have thus been lost. Close to this very clear group is a deep, small

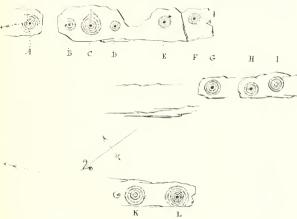
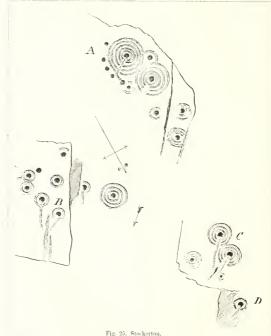


Fig. 24. Rough Tongue of Bombie.

pit, and what looks like the beginning of a spiral—a form not hitherto found in Galloway. Nineteen feet in the direction of the arrow from K is a group of 4 rings and central cup, greatest diameter being 12 inches.

A few score yards W, of the loaning at Castle Creavie, and S, of the public road, is a quarry. On the last remnant of its original surface, at its eastern edge, and within a foot of the broken rock, is a sculpturing



showing four much-worn concentric rings, with central cup. The inclination of this rock-surface is E.N.E., and at an angle of more than 30°. Above it is a single small cup, and 7 inches from it one of those reniform hollows, the result possibly of two genuine cups being run together by weathering. Still higher up is another of the same.

VIII. THE LITTLE STOCKERTON GROUP,

The designs next to be noted were discovered by Mr D. Corson on the 27th August 1892 (fig. 25). The site is the second-highest rock in the upper part of the field known as North Brockloch, and at about 60 yards S. of the long dike going E. The rock is one of the unlikeliest for sculpturings in the whole district, being not only inclined at a very steep angle, but ribbed and rough in the extreme; much of it is thickly bedded with turf. The site is specially interesting on account of its isolation; there being no other within miles of it, and no tradition of any ancient habitation or of cairns near it.

IX. THE NETHER LINKENS GROUP,

The isolation of this small group is also noteworthy: from the Rough Tongue of Bombie, three miles and a half, and in any other direction, the country, for a much greater distance, has yielded no others. The nature of the rock in this example differs from all that we have hitherto noticed. It is a rounded mass (probably a huge half-buried boulder) of smoothish "porphyry," finer in the grain than the bulk of that rock trending through this part of the country, but still much coarser than the familiar "blue whinstone." The rock is a few feet to the X. of the dike dividing the fields E. of the farm from the open hillside, and close to a small wood. My drawing (fig. 26) shows ten separate sets of rings with central cups, and there is no cup without a ring. That at G appears to start a spiral. The roundedness of this rock is shown on the right by a section. At K is the largest circle, on a lump of rock like the first. Its central cup is 58 inches distant from J, and 68 from C.

X. THE NEWLAW BURN GROUP,

This set of semicircles may be seen and studied by any one travelling by the road between Chapelton and Dundrennan. On the north coping of the little bridge that carries the road here over Newlaw Burn there is a longish stone, probably from the Orroland shore; it bears the seubturing shown in fig. 27.

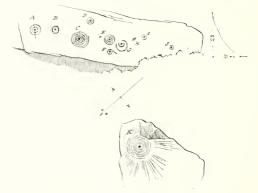


Fig. 26. Nether Linkens.

Intermediate between these two bocalities, Newlaw and Senwick, is Conchieton in Borgue, where, in an ancient grave, I found two stomes bearing cup-marks. The larger, which measures 24 inches by 16 inches and is rudely triangular, is a thin slab of indurated sand-stone, and may have formed part of the cover of the cist. It has one cup of an inch in diameter not far from the centre. The other stone—of rough-grained porphyry—is part of one of the sides of the cist: it is rhomboidal, 24 inches long by 12 inches wide; and, in addition to one very distinct cup, 1½ inch wide, has numerous very small cups, the beginnings, possibly, of a group.

XI. THE SEXWICK GROUP,

Westwards of the river Dee the localities of the cup- and ring-marks are less numerous.

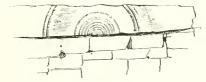


Fig. 27, Newlaw Burn.

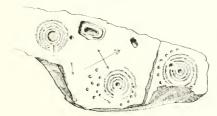


Fig. 28. Clachandolfy, Senwick.

I. The most interesting is that shown in fig. 28. It is on a very low, flattish rock in a hollow of the large pasture-field S.W. of Clachandolly smithy, the field itself being known as "the cleagh." The rock is

barely 50 feet above sea-level. Each of these ring-groups is worth study, for though all are remarkably symmetrical and neat, each has its special feature. The centre of the four ringed group to the left, e.g., is not an ordinary cup, but a hollow disc, and there is a straight, clean-cut groove between the sharply-defined points of the incomplete rings. In the middle group, also, none of the five rings meet, but the level of the rock is left ware;



Fig. 29, Senwick Croft.

while in the right-hand group the corresponding space is bound by the outermost ring, and bears also a cup. The small oblong we have met with previously, but the larger one with its surrounding groove is unique.



Fig. 30, Senwick Croft.

2. The next groups occupy the summit of a long flattish rock (150 feet above sea-level), near the middle of Senwick Croft, about 100 yards E. of the house. As the space used measures some 20 feet in length, I have not only made the diagram (figs. 29 and 30) to a smaller scale than usual, but contracted the drawing, the space between B and D indicating a chasm of 7 feet, bare of sculpturings. On this long rock-surface there

are other cup hollows which some observers claim as artificial. I cannot, and therefore do not represent them.

- 3. South of the gamekeeper's house 110 yards, on the Clash field, there is, on one out of a score of equally suitable rock-surfaces, a design of four much-worn rings with central cup, the largest ring measuring 10 inches in width.
- 4. About 300 yards further south and 50 feet higher up, only a few feet from a dike running E.N.E., is a small group, which, as shown in fig. 31, presents a remarkable likeness to a constellation.

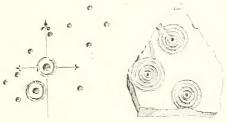


Fig. 31. Senwick Croft.

Fig. 32. Laggan Stone, Anwoth.

XII. The Anword Group.

Under this I place the four separate sites known to me up to the present date, viz., Laggan, Auchenlarie (2), and Bardristan. In a district so rich as this in antiquities, fresh sculpturings may be found at any moment; but up to 1887 the only authentic example was the fine group described by Simpson.

 The Laggan Stone (fig. 32) was, I believe, first noticed by Mr Kinna, of Newton-Stewart. Through him I was led to see it. The site is a stony, therny, whin-grown slope near the base of Laggan Hill, almost exactly 660 yards W.X.W. of the Four Standing Stones of Newton. It is merely a thinnish block of whinstone, rudely shaped into a pentagon, placed on the top of a low irregular heap of stones, in such a position that its apex points direct to the Four Standing Stones. In size and arrangement its rings are very like those at Torrs (fig. 9), and its cutting is very clear,—so distinct, indeed, as to lead one to the conclusion that its present resting-place is only recent, and that it has been for long under cover.

2. The Bardristan slab (see fig. 33) was removed from amongst the stones of an old drain in 1889, and, through Mr Kinna's care, it is now preserved at Bardristan. The evident attempt to square the stone itself;



Fig. 33. Bardristan.



Fig. 34. High Auchinlarie.

the extreme smallness of the rings; the direct connection of the grooves, in all cases but one, with cups; and lastly, the vivid sharpness of the whole sculpturing, in which the tool-work is clear much beyond the ordinary, all combine to render this Bardristan slab unusually interesting and valuable.

3. High Auchenlarie.—The rock-sculpturing here brought under notice (see fig. 34), and which I discovered in 1886, is about 51 feet S.W. of the tallest stone in the stone circle on the uplands of this farm. It is the rock nearest to the circle, a low-lying pointed piece, with only a couple of feet exposed to light and weather. Below the turf (see dotted line in diagram) I found the cups and rings as here shown.

4. The slab now noticed as the Auchenlaric slab has been beautifully illustrated in Simpson's Archaic Sculpturings. Its general appearance (see Appendix to Proceedings, vol. vi. p. 30, and pl. xiii. fig. 3) is not unlike the Bardristan slab. It has been compared by Stuart, who figured it, to the cist-cover at Coil-field. Like the Bardristan example, its exact relations to any cist or other stone were not noted at the time of its discovery. Many years ago it was removed from the hillside to the garden at Cardoness, where it may still be seen.

XIII. HILLS STONE-CIRCLE GROUP.

This locality, far inland, is on the farm of Hills, about a mile N.E. of the railway station at Lochanhead. There is here a good example of a stone circle, and on the stone lying due E. in the circumference of ten stones there are three very small cups, in a perfectly straight line, on the top of the stone, two of them 3 inches apart and the other two 7½ inches. Another stone, that nearest the X. stone on the W., bears a single cup. There are no rings in connection with these cups.

Summing up all the localities comprised under these thirteen groups, we have in this record not less than 49 separate surfaces on which cupand ring-marks are found in Kirkendbrightshire; and these surfaces vary in size, direction of slope, texture, and position, to such a degree that no safe conclusions can be drawn as to the meaning or use of these mysterions incised markings, occurring, as they do, not only on solid rock, but upon thin slabs, as at Auchenlarie and Bardristan; on boulders, as at the stone-circle at Hills; and even on the very apex of a piece of rock, as in one of the Milton Parks examples; and also en stones within a cairn, as at Conchicton and High Banks. At the present date Inverness heads the list with 120 sites, Kirkcudbrightshire is second with 51, and Nairm and Perth have 46 each.

11.

NOTICE OF THE DISCOVERY OF CUP: AND RING-SCULPTURINGS AT DUNCROSK, NEAR THE FALLS OF LOCHAY, IN GLENLOCHAY. BY D. HAGGART, KILLIN.

A very remarkable set of incised rock-sculptures was discovered lately in this meighbourhood by Mr John M'Naughton, of Mesars M'Naughton Brothers, graziers, Duncrosk. The rock is situated in a low-lying field on the north side of the Lochay river, and at a point some 3½ miles from Killin. It lies immediately below the old farmhouse of Duncrosk, and about 100 yards below the roadway, passing up the north side of Glenlochy. It is an outstanding object in the west end of the field or haugh below Duncrosk, the rest of the field being comparatively level. It is a glaciated boss of micaceons schist, having the general trend of the neighbouring schists, viz., east and west. The southern face of the rock presents a wall some 8 to 10 feet high and about 200 yards long, dipping to the north, till lost in the rising ground behind. The top of the eastern portion of the rock-wall is cupmarked for a distance of some 25 yards, with a breadth of some 3 to 4 yards.¹

Character of the markings.—Cups are very numerous, numbering some hundreds, and are found in groups and, as usual on rocks, are irregularly scattered. They are of average size—1½ to 2½ inches deep.

Ringed Caps.—Of these there are a good many. They are all singleringed, with one exception. The general diameter of the rings is about 5 inches; while in the case of the double-ringed cup, the outer ring has a diameter of 6 inches.

Hoof-like marks.-Of these there are several on the western portion

¹ A water-colour drawing and several pencil sketches were exhibited to the meeting, so as to give a general idea of the position of the rock and character of the markings. They were kindly made by a lady artist, Mrs Woodcock, Southport, who for a time resided in the neighbourhood.

of the rock, but they have weathered so considerably that they need only be mentioned.

Small pittings.—A curious group of seven very small markings may be seen on the western part of the rock. The point of the thumb would cover these markings.

Cup-marking with radial grooves.—One marking of this class only is noticed on the rock. It is a cup-marking of the usual type, with three grooves, extending about an inch from the central cup, at equal intervals round the circumference.

Areaate marking.—This is the largest marking on the rock, and if complete the sine would have a length of 8 or 9 inches. There is a flaw in the rock at its lower end, however. It converges toward the bottom, and has a depth of some 5 inches. There are one or two markings of other varieties on the rock-face. The only one of which any account need be taken is an oval one, which looks as if a small shuttle had been pressed into the rock-wall and then slightly pushed downwards. It has a length of 4 inches, and has been partly deepened by weathering. The top of the rock generally is covered with turf and vegetation, and immediately behind the markings it is comparatively level. Were the turf stripped, this part of the surface might yet yield additional markings.

III.

NOTICE OF THE DISCOVERY OF INCISED CUP- AND RING-SCULPTUR-INGS AT BRAES OF BALLOCH NEAR TAYMOUTH CASTLE. (WITH PHOTOGRAPHS.) BY REV. J. B. MACKENZIE, KENNORF, F.S.A. SCOT.

[Lord Breadalbane having kindly sent intimation to Dr Anderson of the discovery of a cup- and ring-marked boulder-stone in the neighbourhood of Taymouth, Dr Anderson requested Rev. J. B. Mackenzie, Kenmore, a Fellow of the Society, and an expert photographer, to visit the stone and contribute a notice of it to the Society if it should be found to be of sufficient interest. The following paper is the result of Mr Mackenzie's visit to the stone, and the illustration is from a photograph taken by Mr Mackenzie.]

The stone which Dr Anderson has requested me to examine is a natural boulder, measuring about 4 feet in length and the same in breadth. It lies facing the north, on the slope of the hillside of the Braes of Balloch, a little more than 1000 feet above sea level, and about a quarter of a mile to the east of the house at Tombuic. About one half of it was covered with soil and heather, which I removed and replaced as before. This accounts for the carving on one portion being so much more distinct than on the other. Its precise situation is about 100 yards to the south of the fence which separates the arable land from that portion which was partly arable, but mostly moorland pasture, and is not far (only a few yards) from an old road from the arable land to the hill. It is a boulder of the stone which abounds in the vicinity—a coarse schist, very hard and durable—and presents a fairly level surface. The field in which it lies is full of hillocks, largely formed of boulders, although in many of them the rock is also visible.

About 100 yards to the south of the carved stone is a hillock where the rock appears, which originally must have presented an irregular face, some 6 or 7 feet high, and slightly curved. This has at one time been made into some kind of dwelling. There is a heap of stones and soil reaching fully half way up the rock, and at the top there are still in position a few large stones, with their ends projecting 6 or 8 inches beyond the rock. It may have been a dwelling of the bechive kind, but there is too little remaining in position to enable one to give anything but a very rough guess—only a thorough clearing out of the rubbish would enable the character of the structure to be accurately ascertained.

I enclose a photograph of the boulder (fig. 1), showing its markings. The oblong marking at the side of the stone, of which I also send an enlarged photograph, is the only one which is different from those usually found in this association. It is apparently meant to represent something,



Fig 1. Boulder with cup- and the markings, on Braes of Ballo h

and not merely ornament. I have examined most of the other boulders in the vicinity, but none of them show anything artificial, except one on the hillock above noted, which has two notches cut in the edge of the stone, 13 inches deep and 4 inches apart.

The view from the place is most extensive; you look down on the Tay and Loch Tay, and see the entire sweep of the mountain range from Ferragan to Benmore. Although it is so high, the soil is excellent better than in the valley; and there was at one time a considerable population cultivating the arable ground about 900 feet above scalevel.

IV.

RECENT ANTIQUARIAN RESEARCH IN GLENSHEE, By W. M'COMBIE SMITH, F.S.A. Scot.

Glenshee, in north-east Perthshire, on the borders of Aberdeen and Forfar, is one of the most interesting glens in the Highlands. It has magnificent scenery, was once thickly populated, and is rich in legendary and traditional lore.

Along with several other districts in Scotland and Ireland, it claims to be the scene of the boar hunt! that resulted in the death of Diarmid, the Fingalian hero. It has Diarmid's grave—two of them, in fact; the Boar's Bed, Boar's Loch, and a stone admirably adapted for chaining Finn's famous hound Bran to. The Boar's Bed is a narrow groove between two rocky ridges on the precipitous face of Ben Gulabein, at the lower end of Glenbeg, on its west side.

The reputed grave of Diarmid is on a knoll or mound, surmounted by four upright stones of irregular dimensions, being simply natural boulders taken from the adjacent hillside. The knoll is on the farm of Tomb, nearly half a mile east of the lower end of Glenbeg, at the foot of the range of mountains that bound Glenbeg on the east. Permission to open the mound was freely granted by A. II. Farquharson, Esq. of Invercauld, the proprietor, and Mr W. M'Kenzie, Glanis, the tenant of Tomb, and a beginning was made on 28th August 1894. The mound is of irregular oval shape, 112 yards in circumference, 39

¹ In the Dean of Lisnore's book there is a poem, of no mean merit, by Allan M'Rory, describing the boar hunt, which Dr M'Lauchlan is of opinion refers to this Glenshee. The author of the poem describes Glenshee as—

"The vale that close beside me lies, Where sweetest sounds are heard of deer and clk, And where the Feinn did oft pursue the chase, Following their hounds along the lengthening vale. Below the great Ben Gulbin's grassy height Of fairest knolls that lie beneath the sun, The valley winds."

The valley winds.

Diarmid, in the poem, when he went to rouse the boar, "went up to Ben Gulbin" and "roused from his cover on the mountain side the great old boar."

yards over the top from east to west, and 29 yards over the top from north to south. It has a short steep slope of 141 yards towards the west, and a long easy slope of 24% yards towards the east. Apparent height of summit, above level of surrounding ground, from 15 to 20 feet. The dimensions of the stones above ground are: stone at southeast corner, height 1 foot 2 inches, circumference at base 6 feet. Stone at south-west corner, height 2 feet 3 inches, circumference 7 feet 5 inches. Stone at north-west corner, height 2 feet 2 inches, circumference 7 feet 6 inches. Stone at north-east corner, height 2 feet 3 inches, circumference 6 feet. A line drawn round the four stones, on the outside, at the base, measured 42 feet. Measured from centre to centre of each stone, the distances in the order given above were 8 feet 3 inches, 8 feet 6 inches, 9 feet 6 inches, and 8 feet 3 inches. The excavation was made in the irregular rectangular space inside the stones. The soil on the top was an excellent dark loam to the depth of about 20 inches. Below that, the soil was of a light yellow colour, singularly free from stones, and to the depth of 6 or 7 feet could be due with case by a spade, with little or no help from a pick. On the assumption that the mound was artificial, the grave was expected to be near the bottom. By the time that a depth of 10 feet was reached, the writer began to be of opinion that the mound was not artificial, but, in common with other similar, though not so regularly formed mounds along the base of the mountains at the lower end of Glenbeg, simply an isolated remnant of glacial detritus. From time to time small pockets of a black substance. so close in texture as to resemble graphite, but really consolidated peat, were met with, and pieces of rotten-like rock. But except these, and an occasional stone of from 6 to 8 pounds weight, nothing was met with but the light vellowish soil.

By Friday, 31st August, a depth of 17 feet was reached on the west side. Before that I had written to Dr Joseph Anderson, then residing at Blaingowrie, concerning the progress made, and had requested him to come and see the work, if at all convenient. From the very first, Dr J. C. Rattmy, F.S.A.Scot, of Coral Bank, Blaingowrie, had taken the most lively interest in the excavation. On the 30th, while the writer was being assisted by Dr Rattray's son, the monotony of the work was broken

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in upon by coming upon some earth of a darker hue than the rest, which emitted a powerful and most disagreeable odour. Dr Anderson was fortunately able to come up to Glenshee on the 31st. A short inspection of the excavation was enough to convince him that the mound was not artificial, but composed of glacial detritus in situ. From the appearance of the mound, with the stones on top, Dr Anderson said that he would have expected to have come upon evidence of its having been used as a burial-place, but at a depth of from 4 to 6 feet. As only a narrow vertical excavation had been made at one end, Dr Rattray, to remove all doubt, was at the expense of having the whole space within the stones excavated to a depth of 6 feet, and the narrow section at the west end to a depth of 22 feet; but no evidence of the soil having been previously disturbed, or of any foreign body having been deposited in it, was met with.

The Boar's Loch is a small lochlet or tarn, in the hollow of a small plateau, some 30 feet above the level of the Beg, and quite close to it on the east side, about 100 yards above the Old Spital. The narrow bank between it and the Beg has been cut through at one time, near the northwest end, and partially drained the lochlet, so that there is water only at the south end. It is said to contain the usual traditional gold cup. A few vards from its northern end, in a slight hollow, there used to be three boulders lying in a line, the distance from first to third being 30 feet, This also had the reputation of being Diarmid's grave. When the ground was trenched a good many years ago, the boulders were removed to the side of the loch. One of the men engaged in the work dug down some distance, but came upon nothing unusual. There is nothing in the shape or size of the boulders to indicate that they had been placed in their original position for any particular purpose, and precisely similar boulders are scattered over the base of the mountain in all directions. Small stones have been sunk in the ground to mark the extremities of the so-called grave, but being level with the ground are somewhat difficult to find.

On the face of a small knoll, just behind the kirk of Glenshee, is a rather thin upright stone, about 5 feet in height by less than 2 in breadth, having two small semicircular pieces, an inch or two deep, cut out of each side, about 3 feet from the ground, as if to keep in position a rope or chain tied round the stone. Dr Anderson humorously suggested that this might be the stone to which Finn's famous hound Bran had been tied. An excavation made at the foot of this stone, on the east side, to the depth of over 3 feet, revealed nothing but that the knoll was composed of pure sand and gravel.

About $2\frac{1}{2}$ miles down the glen from the kirk is the farm of Broughdearg, at which there are two upright stones quite close to the farmsteading. They are about 10 feet apart, the one 5 feet 6 inches in height by 8 feet 2 inches in circumference, the other 5 feet in height by 8 feet 6 inches in circumference. On one of them is a semicircular notch, like that on the stone behind the kirk, at about the same distance from the ground.

It will be seen that no "finds" were made in Glenshee. The writer, however, had the satisfaction of learning that Dr Joseph Anderson agreed with him in thinking that the form of the mound at Tomb, together with the four upright stones placed on the top by human agency, warranted the supposition that something of antiquarian interest was likely to be found in it. To have settled that the stones on the top are the sole objects of interest from an antiquarian point of view, is some consolation for labour expended and hopes disappointed.

In addition to Dr J. C. Rattray, the writer wishes to acknowledge the co-operation and interest taken in the work by the Rev. T. Crawford, B.D., the Manse, Glenshee, and Mr C. M'Kenzie of Borland, Blackwater.

V.

A BRONZE MEDALLION PORTRAIT OF OLIVER CROMWELL, SIMILAR TO THE BUST REPRESENTED ON THE "DUNBAR MEDAL" STRUCK BY THOMAS SIMON BY ORDER OF THE PARLIAMENT. BY WILLIAM FRASER, F.R.C.S. DUBLIN, HON. MEM. S.A. SCOT.

An oval bronze plaque or medallion of large size, measuring upwards
of 6 inches in length by 4 inches broad, bearing the portrait of the Great
Protector of the Commonwealth, which came into my possession some years
since, represented his features as more youthful than they are shown upon
his ordinary coins in gold and silver. The uncovered head and armoured
bust are in high relief, and a quantity of flowing locks of hair descend
over his shoulders. On examining recently some medals and coins of
Cromwell in my cabinet I recognised a striking resemblance between this
medallion and the beautiful and much prized medal struck by direction
of the House of Commons to commemorate that "greate mercie" the
Battle of Dunbar, with its inscription of the historic word of the day,
"the Lord of Hosts,"—having on its reverse a representation of the
House of Parliament and its Speaker in full session, by whose supreme
authority the medal was prepared.

This Dunhar Medal possesses additional importance in the medallic history of England, as it is the first military medal ever issued for active service in the field, alike to officers and men of all ranks serving in battle, similar to the usual practice adopted at the present day, but the example was not followed subsequently until the well-known Waterloo Medal succeeded to that distinction.

The following order for its preparation is taken from the journals of the Ilouse of Commons, vol. vi. page 465:—

"Die Martis, 10th Septembris 1650.—Ordered that it be referred to the Committee of the Army to consider what medals may be prepared, both for officers and soldiers, that were in the Service in Scotland, and set the proportions and values of them and their number, and to present the estimate of them to the House." From a subsequently dated letter of the Lieutenant-General to the Committee of the Army on the 4th of February 1650 (old style), written in consequence of the action taken to carry out this intention of issuing a medal, it appears that the celebrated medallist Thomas Simon, or Simmons as the name is sometimes written, was sent by special order from London to Edinburgh to obtain a suitable authentic portrait of Cromwell for the medal about to be made. A skilful artist, in preparing such a portrait, would, we may believe, set about its execution in the usual manner, by preparing, in the first place, a working model or design in wax of greater size than the steel die he intended to engrave. This model ought to agree in all important and essential particulars with the working die, such as the distinctive and characteristic features of the person intended to be commemorated, his ordinary attire, and the posture selected by the artist for his model. The Medallion now shown does agree in all particulars with the figure of Cromwell on the Dunbar Medal.

It is, however, a cast in bronze, and, so far as I can ascertain, unique; if obtained from the artist's original wax model, it must have been copied by the peculiar art process known and practised at the time, and sometimes employed in our own day with success, termed "ciré perdu," that is, the soft waxen design was embedded in a mass of suitable modelling-clay to retain the impression, which during a subsequent process of baking became heated, and the wax melted out, after which a metal casting could be obtained, and the resulting bronze medallion would preserve a permanent record of the sculptor's original workmanship in wax.

Cronwell's portrait, both on the Dunbar Medal and my Medallien, agree in being much raised. Such high relief is characteristic of Simon's usual manner of design; and in further confirmation of its being the handlwork of this special individual, we find no tradition or record existing of any other person whatever being allowed the privilege of engraving or modelling the portrait of the Protector for either the dies of medals or coins. He seldom gave permission even to painters to portray him; hence genuine authentic contemporaneous portraits in oil are rarely met. All known likenesses of Oliver Cronwell, so far as I know, and certainly all his portraits on medals and coins, can be divided

into two distinct classes, according as they belong to two different periods of his remarkable career. The Dunbar portrait and this Medallion were taken when he was comparatively a young man. Born in the year 1599 he was fifty years of age when he fought his "erowning victory." He appears in full vigour of life, a leader of men, every feature denoting strong will and stern resoluteness of character. He is recognised by his portrait to be as history tells us, and long eurling locks of hair in ample profusion fall down upon his armour over his neck and shoulders. When Cromwell subsequently placed his image and superscription on the coinage of Great Britain as Lord Protector of the Commonwealth (on these also Simon engraved his likeness), he is shown with rounded and more developed features, considerably aged in his appearance, and his abundant and flowing hair becomes shortened, still covering his neck to some extent, but not his shoulders. Whether he is represented in earlier life on the Dunbar Medal, or in more advancing years upon the gold and silver coins of the Commonwealth, we notice he is invariably portrayed as having a quantity of long curling hair, altogether different from the prevalent popular ideas entertained about Puritans and Roundheads, who, to distinguish them from the Cavalier followers of Charles, are usually supposed to be cropped as close as a French sans-culotte during the times of the Revolution in France one hundred years ago,

The history of the Bronze Plaque can be traced without difficulty, and alfords a reasonable voucher for its antecedent reliable character. It came into my possession direct from the Whaley family, one of whon during the latter part of last century was a well-known figure in Dublin society, distinguished as "Buck Whaley," a member of the last Irish Parliament, and related to the Earl of Clare, who was married to his sister Anne, eldest daughter of Richard Chapel Whaley of Whaley Abbey, Wicklow.

It is, however, through their relationship with the well-known Colonel Whalley, the near relative, cousin, and vigorous supporter of Oliver Cromwell, subsequently one of the judges at the trial of Charles the First, and therefore called in history the "Regicide," that the Whaley family obtain their best claims to distinction.

Through the kindness of my friend George Dames Bartchaell, Esq.,

LL.B., I obtained the following memoranda relating to the Whalley and Whaley families.

Richard Whalley of Kirkston Hall, M.P. for Nottinghamshire, married Frances, third daughter of Sir Henry Cromwell of Hinchinbrooke, grandfather of Oliver Cromwell the Protector, and had four sons and three daughters.

The second son, Edward Whalley the Regicide, was actively engaged in the Commonwealth wars as Colonel, fled to America, and died there before 1679.

The third son was Henry Whalley, who was Accountant-General in Ireland, and M.P. for Athenry from 1661 to 1665. He left a son, John Whalley of Athenry, Co. Galway, who left five daughters, one of whom, the youngest, Susanna, married Richard Whaley or Whalley, M.P. for Athenry from 1692 till his death in 1725. He was the son of Richard Whaley, a Cornet of Horse, who had a grant of land in the counties of Armagh and of Kilkenny under the Act of Settlement in 1666. Of his parentage there is no record, nor whether he was a connection of the Regicide's family.

Richard Whaley and Susuma Whalley had a son, Richard, who was
father of Thomas Whaley—Back Whaley, also known as "Jerusdem" in
Whaley, from a successful bet he gained, by walking to Jerusalem and
back within a year, and playing a game of ball against its walls. His
departure on this memorable expedition is commemorated in a Dublin
publication of the period, in doggered rhymes. This work is named "Both
sides of the Gutter." Mr Burtchaell further adds: "Jerusalem Whaley
was thus, through his grandmother Susama Whalley, descended from the
brother of the Regicide, he and his brother being first consins of Oliver
Cromwell the Protector. It is curious that the two families of Whalley
and Whaley should have become connected by marriage. There is nothing
to show that they were originally of the same stock, but they probably
were."

So far for the pedigree. The Whaleys had an estate in the County Wicklow termed Whaley Abbey, and a fine Dublin mansion in Stephens Green, still recognisable by the figure of a recumbent lion carved in stone over the portico. When the last of the family died, this house was sold, with its family pictures and furniture, and the Cromwell Medallion then came into my hands. The house itself was purchased for the Catholic University of Ireland, and still remains in their possession.

Monday, 11th February 1895.

GILBERT GOUDIE in the Chair.

A Ballot having been taken, the following Gentlemen were duly elected Fellows:—

Thomas Martin Cappon, Architect, Dundee,
Rev. J. W. Jackson, M.A., F.C. Minister, Cromdale.
Capitain Jamus F. Mucpherson, United Service Club, Edinburgh.
John Horne Stevenson, M.A., Advocate, 10 Albyn Place.
Rev. George Williams, Minister of Norticston Free Church, Thornhill,
Stiviline

The following Donations to the Museum and Library were laid on the table, and thanks voted to the Donors:—

By the School of Anthropology, Paris.

Five Spindle Whorls of terra-cotta, glazed and painted with floral patterns, from the Pyrenees of the French side, where they are still made and used.

(2) By Rev. Dr Grigor, Pitsligo.

Two Butter-Weights of stone, from the parish of Keith, Aberdeenshire,
The larger of these is a natural water-rounded pebble of quartzite, 3\(\frac{1}{2}\) inches in diameter. One end has been abraded, so that it would be
certainly taken for a prehistoric hammer-stone used at the one end
only. This abrasion, Dr Grigor states, was done by knecking it with
another pebble in order to reduce it to the proper weight. Its weight

is that of the old Aberdeenshire "lang pund," or 24 oz. avoirdupois, equal to a pound and a half imperial.

The other stone Weight is a roughly angular pebble of mica schist, with a flat under-side. It has also been slightly reduced by knocking it with another stone to bring it to the proper weight of half a "lang pund," or 12 ounces imperial. Dr Grigor knows that both were used for weighing butter till quite recently.

Axe of indusated micaceous claystone, Π_4^{γ} inches in length by $3\frac{1}{2}$ inches in breadth across the cutting face, slightly oval in the cross section, and tapering to a rather slender conical butt, from Pitsligo, Aberleenshire.

Small Axe of indurated micaceous sandstone, $3\frac{3}{4}$ inches in length by 2 inches in breadth across the cutting face, oval in the cross section, and tapering to a roughly conical butt, from Pitsligo, Aberdeenshire.

Socket-Stone of quartzite, 6 inches diameter.

Stone Lid, nearly rectangular, with knob in the middle; and a small Whorl of micaceous stone; both from Pitsligo.

Iron Crawl, from Rosehearty; and Wool Comb of iron, with wooden handle, from Pitsligo, Aberdeenshire.

Cross, made of rowan-tree twigs, bound with red thread, as a charm against witchcraft.

A model set of the old Horse Harness used in Aberdeenshire,

Herd's Club, as used in the district, marked with a cabalistic score, and a copy of the traditional verses giving directions how to make the score, from Pitsligo, Aberdeenshire.

(3) By Mr Christie, Teacher, Dollar, through Robert Robertson, F.S.A. Scot.

Cinerary Urn, 15½ inches in height by 10½ inches diameter across the mouth, with a heavy overhanging rim, ornamented by oblique rows of circular impressions, as if done with the end of a stick about the thickness of a pencil. It was found at the Cuninghar, Tillicoultry, on the site of a stone circle, and alongside of the site of one of the stones of the circle. [See the subsequent Communication by Robert Robertson, F.S.A. Scot.] (4) By Adolphe Megret, the Author.

Etude de Mensuration sur l'Homme Prehistorique. 8vo, Nice, 1894, 16 pp.

(5) By EDOUARD PIETTE, the Author.

L'Epoque Eburneenne et les Races Humaines de la periode glyptique. 8vo, Saint Quentin, 1894, 27 pp.

(6) By John Beddoe, M.D., LL.D., the Author.

The Anthropological History of Europe, being the Rhind Lectures for 1891. Reprint from the Scottish Review.

(7) By the Master of the Rolls.

Icclandie Sagas, Vols. III. and IV. Translations of the Orkneyinga Saga, and Hacon's Saga, by Sir George Webbe Dasent, D.C.L., &c. (Rolls Series.)

(8) By B. H. Cunnington, F.S.A. Scot.

Notes on the Discovery of Romano-British Kilns, &c., at Pewsey. Reprint from the *Proceedings of the Wiltshire Archaeological Society*, 8yo, 8 pp., 1894.

(9) By the Wiltshire Archeological and Natural History Society.

Catalogue of the Library of the Wiltshire Archæological and Natural History Society's Museum at Devizes,

(10) By Francis J. Child, the Editor, through W. MacMarh, F.S.A. Scot.

The English and Scottish Popular Ballads. Part IX.

(11) By Mrs C. M. Little, the Author.

History of the Clan Macfarlane. Privately printed. 8vo, Tottenville, Staten Island, New York.

There were also Exhibited :-

(1) By Major R. G. WARDLAW RAMSAY of Tillicoultry.

Urn of Food-vessel type, with pierced ears below the rim, and finely ornamented, from a cist at the Cuninghar, near Tillicoultry House. [See the subsequent Communication by Mr Robertson and Mr Black.]

(2) By the Managers of the Dollar Institution, through Rev. Robert Paul, F.S.A. Scot.

Urn of Foodvessel type, 4½ inches in height by 5 inches diameter at the mouth, narrowing to 3 inches diameter at the bottom, the whole exterior surface covered with rows of impressed ornamentation, as of a tool notched like the teeth of a comb, less than a quarter of an inch in length, and having six or seven notches. These rows are arranged in zigzag lines vertically from top to bottom, and there are two rows of irregularly impressed markings of the same kind round the interior of the lip. The Urn was found at Harvieston about the year 1804, in making the west approach to the house. It was in a cist, and with it was found a small oval flint knife, 1½ inches in length by 1 inch in hreadth, formed of a flake, with the whitish chalk surface still covering one side, the other showing the bulb of percussion, and the edges worked sharp all round from the inner side of the flake only.

(3) By Thomas Wallace, F.S.A. Scot., Inverness.

Curious Stone Implement (?) of mica schist, 11 inches in length, and formed in shape of a dagger, from North Uist.

The following Communications were read : -

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THE FORTS OF SELKIRK, THE GALA WATER, THE SOUTHERN SLOPES OF THE LAMMERMOORS, AND THE NORTH OF ROXBURGH. BY D. CHRISTISON, M. D.

The forts that form the subject of the following paper are situated in the county of Selkirk, in the parts of Midlothian, Berwick, and Roxburgh drained by the northern tributaries of the Tweed, and in the adjacent portions of the latter county on the south of that river. The district—well defined geographically—comprises the valleys of the Ettrick and Yarrow, the southern and eastern slopes of the Lammermoors, from the west of the range to the Tweed, the adjacent banks of that river and the low ground to the south of it, but without trespassing on Teviotdale proper; and it will be convenient to consider this extensive district in its geographical rather than in its county subdivisions.

As in former papers, I must here claim the indulgence of other labourers in the same field for the insufficiency of my plans and descriptions, my object being to give a general view of the subject, but to leave to others the task of investigating with minute detail and strict accuracy such of the remains as may seem to be worthy of greater attention.

Unless when otherwise stated, the ground-plans are on the scale of 120 feet to the inch, adopted in my previous papers, but the sections are generally on double that scale. They are all oriented as if the north were at the head of the page. The measurements are in feet. The ground-plans are generally enlarged from those of the Ordnance sheets, on the 25 inch scale, but with corrections of obvious inaccuracies and numerous additions in the details. Trenches are usually dotted, to distinguish them readily from ramports. Sectional measurements were taken by tape and measuring-rod, the perpendicular heights being estimates of the highest parts of the mounds now remaining.

As the forts rarely have a special designation, for convenience I have given them the name of the nearest farm, burn, &c. The heights above the sea and the local elevations are taken from the nearest contour-lines of the O.M., and are therefore only approximate, unless when the actual height happens to be given on the O.M.

The measurements, except for the smaller details, are generally taken from the O.M., but have sometimes been checked by myself, or from information furnished by friends.

Forts, the existence of which, now or formerly, seems tolerably well ascertained, are numbered; but very doubtful examples are left unnumbered.

(A.) Ettrick and Yarrow.

The upper and middle stretches of these valleys, which have so strongly excited the poetical imagination, seem to have had no attraction for the fort-builders, insomuch that, if we include the neighbouring parts of Dumfries and Peebles, there is here a space, nearly 20 miles square, quite devoid of forts, and it is only as we approach the junction of the Ettrick and Yarrow that they begin to appear.

1. Hather Burn, 4½ miles S.W. of Selkirk, and 3 above the junction of the Ettrick and Varrow, is the furthest up the valley of the Ettrick It is 1 mile east of Ettrick Bridge, on the Hutler Burn, about 700 feet above the sea, and is marked on the O.M. as an oval of about 320 by 250 feet over all, but faintly and imperfectly, as if very ill preserved; and I am informed by Mr Craig Brown, author of The History of Selkirkshire, that it is now scarcely recognisable. As far as can be judged from the Ordnance Plan, it has consisted of a single broad rampart and trench.

Castle Hill, Onknowd.—A quarter of a mile E. of the Ettrick, and 1½ above its junction with the Yarrow, a "camp" is marked on the CM, about a quarter of a mile N. of Oakwood Tower, or Castle Hill, about 600 feet above the sea, as an irregular rectangle of about 300 by 250 feet, but both Mr Craig Brown and Mr James Wilson, of Galashiels, have sought in vain for any trace of it on the easily identified spot, and they do not think there ever was a fort on the site.

- 2. Hartwoodmyres,-Two and a half miles S.W. of Selkirk, about 600 feet above the sea, a rectangular work, one side on the edge, the other on a gentle westward slope of a low ridge. It measures 210 by 180 feet on the O.M. Three sides are merely traceable in a ploughed field, but the E. side has escaped, and lies on the edge of the ridge so as to command the eastward as well as the westward slope. It consists of a double mound, with a trench 4 to 5 feet deep between. The outer mound is prolonged both north and south for several hundred vards each way, its northern arm turning at a right angle and running several hundred yards further, till it nearly strikes a little burn, where it ends in a little square mound-enclosure. The southern arm is gradually lost. Possibly these prolongations originally formed part of a parallelogram enclosing the gentle slopes of a slight marshy hollow to the east of the small rectangle. Of course this work, from its form, has not escaped being called Roman, but it is surely quite possible that, like other works of the kind, it may be an enclosure of earlier or later date, perhaps not even a fortification at all. On the O.M. it is shown as if perfect, and much more substantial than now. As its sides also are represented slightly curved and the angles much rounded, the title of the fort to be called rectilinear is somewhat doubtful. A large circular enclosure on a gentle slope about 1 mile off, consisting of a single mound of slight proportions, of which three-fourths remain, and without a trench, has no resemblance to a fort.
- 3. Mote, Howden, Selkirk—(fig. 1)—a mile and a quarter S.W. of Selkirk, 600 yards E.S.E. of Howden farm-house, about 650 feet above the sea, known in the locality as "the Mote." It is apparently carved out of a natural mound, connected by a slightly depressed neck with equally high level ground to the E., but increasing in height on the flanks westward by the fall in the ground below, till at the X.W. angle it is about 40 feet high. At the W. end the height is diminished by a tongue of land (A) which projects for about 50 yards into the field. A trench, with a rampart in front, covers the west end of the main work, and is cut through this projection. The trench and rampart extend about half way round the S. foot of the mote, but northwards the rampart disappears, and the trench (B) is continuous with a terrace, which goes

partially round the north face, about half way down the scarp. The interior is nearly level, and measures about 220 by 150 feet from crest to crest of a parapet barely traceable on the flanks, but which becomes a substantial mound at the ends. The scarp is steep, and on the S. side is prolonged by a less steep but deep descent to a burn. A broad unfortified eminence, rising 100 feet higher than the mote to the $N_{\rm *}$, is called "The Moat Hill" on the O.M.

There is no other mote but this on the O.M. in the whole region

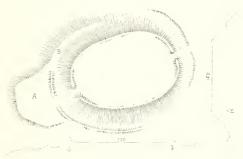


Fig. 1. The Mote, Howden, Schkirk.

overtaken in this paper, and I do not think that more than one of the "forts" has any marked resemblance to a mote.

The mote at Howden is opposite the junction of the Ettrick and Yarrow, and with the three preceding works, two of which are questionable forts, the list of primitive fortifications in the Ettrick valley before its junction with that of the Yarrow appears to be complete. In the latter valley there is but the following one.

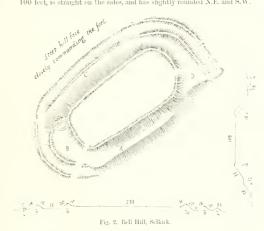
Hangingshaw.—About 3 miles above the junction, 200 yards north

of the Yarrow, and 550 feet above the sea, represented on the O.M. as a faint circle 100 feet in diameter. I have no information about it.

Below the junction of the Yarrow with the Ettrick there are four forts in the Ettrick valley, all on its west side.

- 5. Philiphough.—On a slight eminence, 1000 yards N. by E. of the junction, 200 feet above it, and 600 above the sea. On the O.M. a single oval ring 330 by 220 feet is marked. I could not true this all round, but on the south there are three concentric, substantial low mounds, occupying a width of 80 feet. They are grassy, but feel stony under foot.
- 6. Long Philip Burn No. 1.—One mile W.N.W. of the junction of the burn with the Ettrick, opposite Selkirk, on a conspicuous green eminence 750 feet above the sea. A deep abrupt little ravine, the Corbic Linn, winds round on the N. and E., but the fort is retired a little from the edge. It is difficult to make anything of the remains. The O.M. indicates a squarish oval of 200 by 170 feet, much quarried.
- 7. Long Philip Burn No. 2.—A quarter of a mile N.W. of the last, further up the burn, on the edge of a steep bank, descending to it on the S.W. side, about 750 feet above the sea. I could make out nothing definite. The O.M. gives two nearly complete oval ramparts, about 190 by 170 feet over all, but the plough has since entirely destroyed them.
- 8. Linglee.—Not on the O.M., but discovered by Mr James Wilson, Galashiels. It is about 600 feet above the sea, and is of the semicircular type, the unfortified base resting on the edge of a very steep, almost inaccessible descent of upwards of 100 feet on the N.E. side of Linglee Burn, half a mile above its mouth in the Etrick, a little below Sclkirk. Only the northern third of the semicircle and a fragment of the southern end, close to the edge of the ravine, remain. The former consists of a scarp 6 feet high, descending on a trench 9 feet wide at the bottom, with a counterscarp 5 feet high, and an outer slope 6 to 8 feet high, to a field. Further round, towards the edge, only the two scarps remain, 12 and 8 feet high respectively, and the trench becomes a terrace.

The next, although not strictly in the Ettrick valley, is so near it, and is so little connected with any other division, that it may be most suitably taken here. 9. Bell Hill (fig. 2).—One mile and a half east of Selkirk, 900 feet above the sea, in broken irregular ground, on an isolated eminence, completely and closely commanded, however, by a height which rises steeply on the N.W. The nearly level summit, measuring about 230 by 100 feet, is straight on the sides, and has slightly rounded N.E. and S.W.



ends. The inner defence consists of a parapet 2 or 3 feet high round the edge of the summit. To the 8.E. the scarp from this is from 20 to 30 feet high, and has a narrow terrace (A) about half way down, which does not extend to the X, end of this face, and expands at the other end to a large level space (B) at the 8.W, end of the fort. The opposite or X.W. face has a steep scarp, 18 feet high, falling on a narrow vol. xxix.

parapeted platform (C) at the base of the scarp, which defends a trench, 5 feet deep and 7 broad at the bottom, beyond which rises the steep face of the hill which commands the fort. The S.W. and N.E. ends are each defended by three ramparts. At the S.W. end the scarp from the interior is about 8 feet high, and falls on the wide expansion (B) of the south-eastern terrace already mentioned; this is defended by the middle rampart, which also closes it on the north by turning in and joining the inner rampart. At the angle of junction there is a small oval foundation enclosure. The outer rampart at this S.W. end is close in front of the middle one, and joins the outside of the trench on the north. At the N.E. end the two outer ramparts curve round northward to join, the one the outside, the other the inside of the trench of the N.W. face, but run straight south-eastward, so as to leave a widening space (D) between them and the incurving inner rampart, this space being unenclosed to the S.E. There are two entrances near the S.E. and S.W. angles: both may be original, but no characteristic features remain in either of them.

(B.) The Tweed, from Walkerburn to Gala Water.

The valley of the Tweed is studded with many forts in Peeblesshire, but on approaching 8elkirkshire they gradually cease, and for a winding course of five miles the valley is entirely destitute of them. In the succeeding course of six miles, to the junction of the Gala, are the following four:—

10. Cabbonler.—Three quarters of a mile S.W. of Clovenfords, 638 feet above the sea, on the edge of a plateau, with a steep slope, facing N.W. to a little dry ravine. It has been of the semicircular type, the unfortified base resting on the edge of the ravine, but the plough has destroyed all but two fragments at each end, where the ramparts strike the edge of the slope. At the S.W. end there are three ramparts, with two intervening trenches, the former not exceeding 5 feet in height, and with a good deal of stone visible in sections, the latter narrow and flat-bottomed. The fragments at the opposite end are not so large, the inner one, if it exists at all, having more the character of a wall. The interior length is 558 feet (Mr James Wilson). Outside, to the N.E.,

the ground for about 100 yards along the ridge is much cut up with irregular low mounds and ridges.

Yair.—Nearly a mile W.N.W. of Yair House, on the slope of Craig Hill, overlooking Yair Burn, 900 feet above the sea, 300 above the burn. The site is a weak one, being a shelf on the hillside (section, fig. 3), easily approached on the flanks and commanded in the rear by the slope, which falls directly on it, with a steep descent into it 8 feet high. The wall has run along the top of this descent and downwards on the flanks in tolerably straight lines, but the front is curved, and measures from crest to crest about 150 feet each way. The fort, if it



Fig. 3, Transverse Section of Yair Fort.

be one, has apparently been of stone, and the interior is rough with irregular mounds.

11. Sanderland Hall.—A mile and a quarter W. by S. of the junction of the Tweed and Ettrick, on the edge of the final descent to the Tweed of Cribs Hill, 250 feet above the river, and 625 above the sea. The O.M. makes it an oval of 375 by 275 feet, with only about a fourth part of the single rampart and trench remaining.

The could only find uncertain traces, the plough having almost entirely effaced it.

12. Rink Hill (fig. 4).—The fort is not quite on the summit (638 feet) of the flat-topped hill, about 250 feet above the Tweed, half a mile W.N.W. of its junction with the Ettrick. To the S. and E. the descent is long and steep, but from other directions the approach is easy. The form is a broad oval, measuring 340 by 300 feet over all, the interior being about 230 by 190. The defences consist of an outer rampart, apparently of earth and stones, 3 to 6 feet wide on its flat top, which on the S.E. is prolonged by a steep natural slope to a height of 20 feet, but this height diminishes as the rampart circles round, till it is only 2 feet above the exterior on the north-west, where the ground rises from

the fort. In rear of this rampart is a trench, varying in depth beneath it from 3 feet on the south-east to 7 on the north-west. Within the trench is the main defence, which appears to have been another mound of earth and stone, with a stone wall on the top, but the mass of stony debris makes it impossible to determine the structure without excavation. In one place I found what appeared to be remains of the outer face of the wall, ten contiguous stones in situ, occupying a frontage of 24 feet.

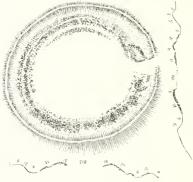


Fig. 4. The Rink Hill.

If this be really the outer face, the wall must have been set 2 or 3 feet back from the edge of the search thus leaving a narrow bern. I could not find the inner face, but I judged the thickness of the wall to have been about 9 feet. The top of the mound on which the wall appears to have stood is several feet above the top of the outer rampart, where the ground outside falls, but is several feet below it where the outside rises. A quantity of debris, 150 feet long in rear of the inner wall on the north side, may represent an additional wall where the natural strength was least. The single entrance, which is to the east, is much destroyed. It has apparently been 9 feet wide, and is strengthened by a wall running on either side obliquely up the scarp from the bottom of the trench at the midde of the entrance to join the main wall, thus forming a little closed work on each side of the inner part of the entrance. There are also remains of outworks here, but so overgrown with briers that I could not examine them. A low mound in the ploughed land to the west shows the position of the semiluar annex marked on the O.M.

(C.) GALA WATER.

The forts in the valley of the Gala have been pretty numerous, but the greater number have either totally disappeared or are in a sad state of decay, and I am not acquainted with any other district in Scotland where the destruction of forts in our own day has been so complete as here.

- 13. Heriot, the highest up the valley, being 15 miles above the mouth of the Gala, is 350 yards N.E. of Heriot Station, and 1000 feet above the sea. The O.M. gives it as a regular, well-marked oval of 350 by 300 feet, with a double ring, and as if well preserved. It is now almost entirely ploughed away, but small portions remaining at the two ends show a substantial mound, whose crest is 33 feet from the outer margin of the trench in front (Mr James Wilson).
- 14. Corsolope.—On the top of a ridge, 600 yards S.E. of Heriot
 Water, opposite Borthwick Hall, on the one side, 450 north of Corschope
 on the other, 400 feet above the streams, and 1300 above the sea. The
 approach is easy along the ridge at the ends, but the ground falls steeply
 on the N.W. and S.E. flanks. The fort has been well described and
 planned by Mr William Galloway (Proc. 8. A. Scot., xiv. 25), and 1
 shall merely supplement his ground-plan with cross sections (fig. 5)
 taken in 1892 by Mr F. R. Coles and myself. Mr Galloway found
 the dimensions to be 656 by 474 feet over all, and 410 by 284 from
 crest to crest of the inner line of the four concentric oval entrenchments.
 The width covered by the entrenchments varied from 85 feet to 106,

with an exceptional expansion to 130 for the special defence of the east entrance.

The sections (fig. 5) show that the defences are of an unusual kind. Their relief is trifling, but the shape in some places is so well defined that its difficult to believe they have undergone any great change in the course of time. In the section on the N.W., going from the interior, there is first a trifling parapet not a foot high, with a gentle scarp 4 feet high, falling on a 16 feet wide terrace, with a trifling parapet at it souther edge: then a second scarp, leading to a second terrace 3 feet below the first, 14 feet wide, with a little trench or drain in its rear, and a trifling parapet in front; then a third scarp and terrace, with appurtenances exactly like the second, and 4 feet below it; lastly, a gentle scarp 3 feet high, falling on a fourth terrace, which may be a cart-track.

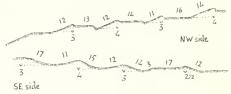


Fig 5. Corsehope-cross section.

The S.E. section shows three concentric ramparts, with intervening trenches, of the ordinary type, but of very low relief, and a fourth or outer line of defence, having a terrace with ditch in rear, and slight parapet and scarp in front, like those in the X.W. section. Northwards, however, the middle trench also becomes a terrace or banquette to where it reaches the entrance. For an apparent earthwork, the fort has a very low relief, and seems to be constructed on the terraced rather than the trenched system, although the slopes are unusually gentle for a terraced fort.

15. Chapel Hill.—On the opposite side of Corschope, 700 yards due

E. of the last, and perhaps a couple of hundred feet lower, on a bread-topped ridge. Miss Russell (Notes on the Catrail, 1882) says of this fort that "it was stripped of its characteristic ring of stones by the tenant of the farm ten or lifteen years ago," Few stones remain; but a single "ring," rising a foot above the interior, and a true trench 8 feet an intersecting modern wall, which cuts off about one-third of the fort enstward, where the plough has filled up the trench, leaving only the scarp. The trench is crossed by a ramp on the S., and to the W. contains three contiguous shallow "cells" in a row, each about 10 feet long and six wide, with a fourth a little N. of the entrance, which is towards the E. I have only met with two other Scottish forts with cellular spaces in the trench.

16. Brotherstom.—On a southern ridge of Brotherston Hill (1380), between Brothershiel Burn and Armet Water, three forts are marked on the O.M. The furthest N., 200 yards S. of Brotherston Farm, 1000 yards above the junction of the streams, about 1100 feet above the sea, is represented as a single circular ring 150 feet in diameter. I have no information about it.

17. Nether Brotherston (No. 1), 700 yards above the junction, and probably 1100 feet above the sea, is represented as a double circular ring, the inner circle about 250 feet in diameter, complete, the outer one, 370 feet in diameter, remaining only on the N., and elsewhere drawn as a dotted line, as if merely traceable. Mr James Wilson found nothing but small portions of the inner one at three points.

18. Nether Brothweston (No. 2), nearly 300 yards N. of the junction, 950 feet above the sea, represented as a regular double oval ring, complete, the outer one about 250 by 230 feet, the inner one 150 by 130. Probably it is entirely gone, as Mr Wilson passed over the ground without seeing anything of it.

19. Brockhouse,—Half a mile 8.8.E. of the farm of Halltree, about as far N.N.W. of the junction of Brockhouse Burn with the Gala, 200 yards W. of the latter, fully 100 feet above it, and 900 above the sea, on a dome-shaped eminence in a plantation. The O.M. shows it as a

well-marked double oval ring, of about 450 by 300 feet, which agrees fairly with Mr James Wilson's interior measurements of 409 by 256 feet. He found it, however, "terribly ruined by quarrying." There were some remains of a strong inner wall and deep ditch, but no definite traces of the outer wall. The ground was ploughed.

- 20. Tabillelaura.—A mile and a half above its junction with the Gala, ³/₄ of a mile N.E. of Hoppringle farm, about 1050 feet above the sea, on Middle Hill, 350 yards above the angle of the junction of Toddle Burn and Middle Burn. The O.M. gives a small well-marked double circle, about 180 feet diameter over all, but Mr James Wilson ascertained from the farmer that it is now only traceable in a ploughed field.
- 21. Symington.—Less than half a mile W. of Symington House, under § W. of the Gala, about 300 feet above it, and 1100 above the sea. Represented on the O.M. by a single oval dotted line, as if the remains were barely discernible, measuring about 220 by 120 feet. I have no information about it.
- 22. North Watherston.—Half a mile N.W. of Watherston farm, from which there is access by a farm road, about as far W. of the Gala, about 450 feet above it, and 1050 above the sea. The site, though clevated, is a tolerably level one, not marked out by natural features. On the O.M. a regular oval of two dotted lines is represented, as if the fort were merely traceable, measuring 400 by 350 feet over all, and 250 by 200 in the inner oval. Neither Mr James Wilson nor I could find the slightest trace of it.

23. South Watherston (fig. 6).—Nearly 2 miles W.N.W. of Stow, fully 1000 feet above the sea and 400 above Gala Water, where it thous past Watherston farm-house half a mile to the E. The northerly side of the fort is near the edge of a steep little ravine, but the other sides have no natural strength, the site being on the gentle eastward slope of a hill. On the O.M. the fort is called Roman, and is represented as a regular rectangle with two ramparts, and an entrance in the middle of the 8, front. But in reality only the S.W. side (A) and part of the 8,E and N.W. are straight, the S.W. angle being a right augle, the N.W. one obtuse, and nearly the whole of the N. and E. face is

closed by a wide curve (1b), near the S. end of which is the entrance.

The defences consist of an outer rampart, generally flat-topped, with a flat-bottomed trench in its rear, the scarp of which had no doubt been crowned by an inner wall, of which only the faintest traces remain.

The outer rampart appears to be earthen, shored up from the trench in some places by stone. In consequence of the rise of the hill westward, this rampart is only 2½ feet above the exterior in this direction, but where it runs down the slope on the S. front it is 5 feet above the



Fig. 6. South Watherston.

exterior. On both these faces it is 5 feet above the trench. The interior, which is full of low irregular mounds, does not rise more than $2\frac{1}{2}$ feet above the trench. It measures only about 160 feet in diameter.

24. Craigend, Stow.—Three-quarters of a mile N.N.W. of Stow church, 850 feet above the sea, and 250 above the Gala, which flows a quarter of a mile to the S. The site, on a pleasant plateau on the gentle descent of a hill, is conspicuous from afar, owing to the contrast of its vivid green with the duller colour of the grass field, above which it

is raised from 5 or 6 to 10 or 12 feet all round. The fort is completely demolished, but seemed to me to have been surrounded by two ramparts, widely apart, and the O.M. indicates this by two oval concentric dotted lines, about 400 by 350 feet over all, and upwards of 100 feet apart. Mr James Wilson, who examined the spot carefully, is of opinion that there were three ramparts, and his measurements give 360 by 340 feet over all, with an interior of 200 by 180 feet. The interior is intersected by numerous low mounds, enclosing irregular spaces of considerable size.

25. Nion.—Half a mile N.E. of the village, on a nearly level site, 900 feet above the sea, 300 above the Gala. I could not find the slightest trace of it in the field, then under turnips. It is represented on the O.M. by two concentric dotted circles, about 300 and 150 feet in diameter respectively.

26. Brock or Tower, Bow.—A mile and three-quarters due 8. of Stow, a quarter of a mile N.E. of the Gala, 450 feet above it, and 1020 above the sea, occupying a strong position on a narrow plateau, conspicuous from the railway below. It is marked "castle" on the O.M., but Mr James Wilson, having procured its excavation, proved that it had been a round tower of uncemented massorry, the wall being 13 feet 6 inches thick, and the interior 31 feet 9 inches in diameter. These are ordinary broch dimensions, and the discovery of an undoubted broch near it renders it extremely probable that the Bow tower was a broch, but the remains are too scanty to prove it absolutely [see Proc. 1892, p. 68, for a full description by Mr James Curle, jun., F.S.A.].

27. Broch and Fort, Torosochley.—A mile and a half N.W. of Galashiels, 300 yards S.W. of the Gala, 300 feet above it, and 800 above the sea, on a commanding site, where the pass, through which the branch of the N.B. railway goes towards Peebles, joins the Gala valley. The fort was long known as Torwoodlee Rings, but the broch was only uncovered in 1890, under the superintendence of Mr James Wilsen and other members of the Ramblers Club of Galashiels, who were the first to discover that the remains of a circular structure existed within the fort. The whole particulars of the discovery are so well described by Mr James Curle in the paper quoted above that I shall merely note a few details here. The broch is a large one, the interior circular court being 40 feet in diameter, and the wall from 17 feet 6 inches to 19 feet thick. The broch is at the upper end of the slightly sloping site on which the fort stands, and is partially and closely surrounded by a trench, which at one point opens into the main trench that lies between the two walls of the fort. The position of the broch, therefore, is analogous to a common one of the motes in regard to their base-court.

The fort has been a very strong one, sadly dilapidated now, upwards of 2000 cartloads of stones having been taken from it about fifty years ago. But near the broch, and along the W. and N. sides, remains of two massive stone walls testify to its former strength. The precise shape and dimensions are not ascertainable, but it has been apparently a broad irregular oval, the W. side indeed being straight, measuring 490 by 430 feet over all. Moreover, there are remains to the N., W., and S. of an outer deep trench, with mounds on either side, which if complete must have enclosed a space not far short of 1400 by 1000 feet. It is to be regretted that the walls of the fort have not been excavated, to prove whether they are merely heaped-up stones or are built. Some light might thus have been thrown on the question whether the broch and fort were of the same period. The Catrail is marked on the O.M. ascending from the S, and ending in the fort, but it cannot now be traced on the hill-face, which has been long cultivated, although it still remains at the foot of the hill near the Gala,

Mossilee.—The site of a "cump," but without any remains, is marked on the O.M. 600 yards N. of Mossilee, § a mile W. of the Gala, and close to Galashiels. It appears to be about 600 feet above the sca, and 150 above the river.

A "camp" is marked on the O.M. about ½ a mile above Galashiels, on the right bank of the Gala, as a narrow crescentic enclosure about 200 feet long and 50 broad in the middle, the straight side of which is formed by the Catrail, where it runs near the edge of the steep bank of the river, but it does not appear to me to be a defensive work.

(D.) The Tweed, from Gala Water to the Leader.

The Tweed flows due E, from the Gala to the Leader in a course of 4 miles. On the N, side there is but little haugh, beyond which the bank rises abruptly to a pretty uniform height of 500 feet. On the S. side the flat is more extensive, and the rise is more gradual to the broad ridge of Bowlen Moor, 600 to 700 feet above the river, but becomes very steep further E., where it culminates in the three-peaked Eildon, the highest point of which is 1100 feet above the stream. The width of the valley from erest to crest of the ridges is about 2½ miles opposite Bowden Moor, but it narrows to 1½ at the Eildons. On the top of the N. bank are remains of three forts; and on the S. side, three lie on the slope from Bowden Moor, one on its western and highest point, and one on the N.E. top of the Eildons.

In considering the forts near Melrose we derive some assistance from an account of the parish, written before 1747, by the Rev. Alexander Milne, although unfortunately he seems to have been gifted with more than the average capacity for vague and loose statements, characteristic of descriptive writers of his time. In particular, he seems to have greatly exaggerated the size of the forts.

28. Camp Khones.—On the brow of the ridge which bounds the north side of the valley of the Tweed above Gattonside, nearly 500 feet above the river, and 785 above the sea. No fort is marked on the O.M., but a low broad mound on the edge of the descent marks distinctly enough the remains of an oval fort about 270 feet in length, probably of stone, as the mound is rough and hard under foot. The rest of the site is ploughed. The Rev. Mr Milne describes this as "a large camp. It has a rampier or wall about it of stone, about half a mile in compass. There is a plain entry from the W. and E.; near to the W. entry, called the closses, there are a great many fine springs." The site appears to me to be well defined, and I do not think its compass could have exceeded 250 to 300 yards.

29. Chester Knowe.—About a mile E. of the last, near the edge of the same ridge, 800 feet above the sea, 500 above the Tweed, the remains of an oval fort of one rampert and trench (β) about 260 by 200 feet over all, is marked on the O.M. The plough and quarrying have entirely effaced it. Mr Milne calls it "a large camp, with a deep ditch, the S. side much levelled by tillage, about ²/₄ of a mile in circumference."

30. Easter Hill.—A mile E.S.E. of the last, on the edge of the same ridge, 300 feet above the Tweed, and half a mile W.N.W. of its junction with the Leader. On three of the sides, which are opposite level ground, a low mound and shallow trench mark the limits of an oval fort, about 300 by 260 feet over all. On the remaining side, where it comes to the edge of the descent to the river, there is a steep scarp 8 feet high, with a terrace or shallow trench at its foot. Mr Milne describes this fort as "a camp of no great compass, the trench pretty deep."

Passing now to the south side of the Tweed, we take the forts in their order from W. to E.

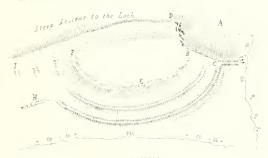


Fig. 7. Cauldshiels

31. Caulibshiels (fig. 7).—At the W. end and highest point (1076) of Bowden Moor, on a knoll 10 to 20 feet above the level ground that lies for a short distance in its immediate front to the S., and stretches along the moor eastward to the Eiblon Hills. From the W. end the ground slopes gently at first, and then rapidly, but from the X. front it falls at once steeply to the loch, 270 feet below. Here the defence is confined to the natural strength of the position, except at the E. end, where

a little ascending ravine or hollow (A) cuts into the position, and is defended at the top by a slight rampart (B C) facing N, for 30 yards, flanked by a little line of rocks (B D) facing E, which runs out at right angles to join the N. edge. The two ends and the S. front are covered by two concentric, gently curved ramparts, the inner one half way down the little slope, the outer one at its foot, the latter having a slight trench in front at the E. end. These ramparts appear to be of earth, but a third, probably of stone (B E F), of which only slight traces remain, formed the interior defence at the edge of the flattish top of the knoll. The interior, which is irregular with obscure mounds, measures 234 feet in length from crest to crest of the inner rampart, and 125 feet in width, the over-all dimensions being about 400 by 200 feet. A substantial mound (G), 3 feet high, starts directly from the angle of junction of the slight rampart (B C) with the outer rampart, and can be traced a long distance eastward in the moor, but gradually diminishing in size. Another slighter mound (11) leaves the outer rampart near its W. end, and runs down the southerly descent of the hill towards the "military road" of the O.M., which has been traced by Mr James Wilson for about 5 miles south-eastward to near Blackchester. A fragment of another mound (I) lies on the slope, before it becomes very abrupt at the W. end of the fort.

32. Haxil Cleuch (fig. 8).—On the X. edge of Bowden Moor, about ½ a mile E. of Caublabitels Loch, 800 feet above the sea, protected on the E. by a steep little ravine; its pointed 8. end cut off from the level moor by a slight trench (A), cut through a little nose (B) that projects on the moor; the W. side rising a few yards above the dry, shallow head of Haxil Cleuch (C); the broad X. end standing upon and commanding the long gentle slope to Marslec Wood. The form of the fort, produced by the nature of the ground, is crescentic. Except a rampart in rear of the trench at the 8. end (D), 5 feet in height above it and 22 feet across, and another along part of the 8. end (E), there is little sign of fortitication. The dimensions are 200 by 140 feet.

33. Marsler.—In the wood of that name, and ½ a mile N.E. of Cauldshiels Loch, on the W. side of a burn, in a position with no natural strength, 600 feet above the sea, there has been an oval fort, measuring about 250 by 150 feet, of which a broad rampart, with a wide, deep trench, remains on the W. side only.

34. Kaeside—Castlestead of the O.M.—Above ½ a mile E. of Abbotsford, 400 yards X. of Kaeside, 450 feet above the sea, in a sloping field, on the edge where the descent becomes steeper. It is scarcely recognisable. The O.M. gives an oval ring of 160 by 90 feet, with the fragment of an outer rampart to the X.; but, according to Mr Milne, this "camp"



Fig. 8. Haxil Cleuch.

was 2 urrounded with a deep ditch, in some places with two fosses, more than a mile and a half in compass, called the Kaeside, or rather the Kidside. Some part of the ditch is about 10 feet high. The place where the camp has been, there are two very deep fosses to the X, but to the S, the rampiers are broken down by cultivation. It is difficult to make out here whether the enclosure called the Kaeside is the same as "the camp" in the second sentence. If his description is at all reliable, Kaeside may have been a rare or unique example in Scotland of a prehistoric town in a low situation.

35. Eildon.—This great fort, or fortified town, is of such special size and importance, that I have described it in a separate paper (Proc. S. A. Scot., 1893–94, p. 111). It is on the top of the N.E. summit of the hill, rising to 1300 fect above the sea, and is girdled by a triple line of defence, about a mile in compass, apparently on the terraced principle. Within the lines are several hundred excavations, in all probability for the foundation and shelter of huts.

(E.) Lauderdale.

This district is specially worthy of investigation, as it is clearly defined by nature, and contains an unusual number of well-preserved examples. It affords a fair index, therefore, of what may have been the number of forts in other districts where the destruction has been greater, as well as of the nature of these prehistoric works; and an examination of them certainly lends no support to the theory that they were mere cattleenclosures, as there is sufficient evidence that nearly all of them were surrounded by at least two "rings," of massive proportions. The Leader and its tributaries drain a district about 15 miles in length by 10 in breadth in the upper and middle reaches, but narrowing to a mile or two below, and has contained at least 23 forts, nearly all still recognisable.

HEAD WATERS OF THE LEADER.

36. Kickton Hill.—Three-quarters of a mile W. by S. of Channel-kirk, 1000 feet above the sea, on the E. side of and 200 feet above Raughy Burn, to which the ground slopes very steeply. Three concentric ramparts on the S.W. and two on the N.E. represent on the O.M. the ends of an oval fort 570 feet long (523, Mr James Wilson), of which the sides are completely gone. At the N.E. end the outer rampart is 17 feet, the inner 30 feet, across, and the distance between their crests

is 36 feet. The S, side and whole interior are quarried. (Information from Mr James Wilson.)

37. "Roman Camp," Channelkirk.—Not a vestige of this remains, if we may trust the O.M., but Roy's plan represents two straight entrenchments, meeting at an acute, slightly rounded angle, the casterly one 1250 feet long, the westerly one 1650 feet long, with an entrance about the middle, covered in front by a small straight traverse. The S. end of the W. entrenchment is prolonged on the plan in a re-entering curve round a little recess in the bank of the neighbouring ravine, and ends in a little redoubt, like that at Inchtuthill, at a point projecting into the ravine. The base of the redoubt towards the interior of the camp is straight, and is defended by three rampents and trenches, but round the edge of the point there is merely a single semicircular rampart. On the somewhat irregular ground to the S. Roy shows no remains.

38. Hillhouse.—Between the Hillhouse and Kelphope Burns, 1100 yards N.N.W. of their junction, 170 yards E. of the former, 200 feet above it, and 1000 above the sea. Pear-shaped on the O.M., 600 feet long, and 480 wide at the broad N. end. Apparently fragmentary and ill preserved, but with three defensive lines at the ends, two on the W. side and one on the E. (Xo other information.)

39. Carfraegate.—A quarter of a mile S.W. of Carfrae, 300 yards E. of Carfraegate and Headshaw Burn, 200 feet above it, and 987 above the sea. Three ramparts well-marked on the O.M. occupy a width of 90 feet at the S.E. end of what must have been an oval fort of considerable size. (No other information.)

40. Tollis Hill.—The furthest N. of the Landerdale forts, 2½ miles S.S.W. of Lammer Law, 300 yards E of Kelphope Burn, 200 W. of Tollis Hill farm, and about 1200 feet above the sea. A circle, aparently of a single ranquart, with trench in front; 360 feet in diameter on the O.M. (No other information.)

11. Langereyl.—(fig. 9.—from a plan by Mr F. Lynn, F.S.A. Scot.)—fics 700 yards N.E. of the junction of Soonhope and Whalplaw Burns, 300 yards E. of the former, 250 W, of the latter, about 100 feet above them, and 1150 above the sea. Long steep descents run down on all sides except the N., where the approach along the ridge is easy. It is

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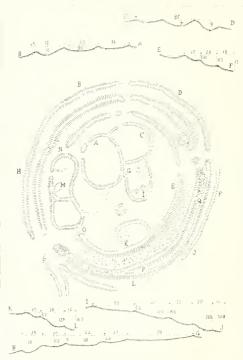


Fig. 9. Langeroft—(from a plan by Mr F, Lynn).

difficult to decipher the remains, partly because the ramparts change in plan and structure as they circle round, partly from dilapidation. This difficulty was sufficiently great, but I was further hindered from making an intelligible plan by a storm of wind and rain during my visit. Fortunately, however, Mr Lynn, after failing from a similar cause, has steevested in making a careful plan, with cross sections, showing the trulevels, all of which I have reproduced in fig. 9.

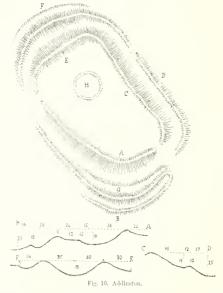
Beginning on the N., where the ground rises gently from the fort, there are three ramparts, but turning westward, the inner one stops (at N), and its line is taken up by the outer mound of an interior enclosure (M), 150 feet long and 50 wide. As the lines circle round to the S., at the S. end of the enclosure (M) there is an entrance (O), and beyond that the inner of the three ramparts begins, not opposite the outer side of the enclosure (M), as before, but opposite its inner side. Circling round the S. of the fort this inner line becomes little more than a stony scarp (below O, K, E). The middle rampart also changes its character here, widening out, and having, half way down its scarp, what I took to be a bern 4 feet wide (P to Q), but what Mr Lynn thinks to be the levelled foundation for a wall. The outer rampart on the S. is trilling, disuppears entirely in the middle (at L), and becomes a terrace as it turns northwards.

About the middle of the E. side, there is another entrance, beyond which begin the three ramparts of the N. face that complete the rempt is but the outer one (D), instead of being in line with the outer rampart of the E. face (F), is opposite the "berm" of the middle rampart (Q). As Mr Lymi's sections show, the relief of the mounds is generally slight, owing, no doubt, to extensive dilapidation, but the stony scarps in some places are as much as 10 or even 12 feet high.

Of six large curvilinear enclosures in the interior, five abut on each other, the westmost one of which (M), as already explained, forms part of the defensive lines. It is subdivided by a transverse meand, and within it, as well as elsewhere, there are traces of "fut circles," and several obscure little stony heaps or mounds are scattered about the interior. The sixth enclosure (K) rests on the S, inner wall.

12. Addinston (figs. 10, i1, and 12).—Three and a half miles X. by W.

of Lauder, 1000 feet above the sea, and 300 above the Cleekhimin Burn to the E. The site is near the edge of a steep descent to the burn; the approach



along the ridge from the X.W. is nearly level, elsewhere the ground falls away gently. The interior is raised from 10 to 20 feet above the

exterior on the flanks and at the S.E. end, but at the N.W. end is some feet lower than the exterior. Thus it would appear that the fortress



Fig. 11. Ramparts, S.W., corner, Addinston.

is carved out of a natural mound. The flanks of the work are nearly straight, so is the inner rampart at the N.W. end, but the outer lines



Fig. 12. Distant view of Addinaton.

there and all the lines at the S.E. end, as well as all the angles, are curved. The interior from crest to crest measures about 300 feet in length, by 180 in breadth at the X. and 150 at the S. end. The ramparts are unusually

massive, but the plough has partially destroyed them on the outside. At present two extend all round, and a third (B), with a trench in its rear, beginning at the W. side of the S.E. entrance, gradually disappears in the ploughed field on the S.W. flauk. There is also an outer trench at the N.W. end. The ramperts are remarkably strong at the N.W. end (section E, F), where the inner one is 16 feet high to the outside, and at the western side of the S. entrance (section A, B, and fig. 11), where for a distance of 160 feet there is a mised platform (G) in rear of the middle rampart (shown in the view, fig. 11). There may have been an entrance at the N.W. angle, but the works are almost obliterated there. Inside, near the N. end, there is a low circular mound, enclosing a space (11) about 40 feet in diameter.

As a good distant view of a well preserved example of these old forts is rarely got, I give (fig. 12) one of Abblinston, taken from a neighbouring height, from a sketch by Mr Lynn. The sections in the plans are also his; and being taken by tape and level, are strictly accurate.

- 43. Burncastle.—Two and a half miles N. by E. of Lander, \(\frac{1}{4}\) of a mile N. of Burncastle farm, 1000 feet above the sea, and 200 above the Earnscleuch Burn, which flows 200 yards E. of it. The position is strong, as besides the deep Earnsclench on the E. it has another ravine on the W. and a considerable fall towards the farm on the S. It is only northward that the ground is pretty level for a short distance. The rings have been almost entirely ploughed down, but a fragment of the S. end remains in a plantation, showing two substantial mounds, apparently of earth, the inner one 6 feet high, the outer somewhat less, with a slight trench in front. In rear of the inner mound the ground appears to have been slightly trenched for a width of 30 or 40 feet, perhaps to provide earth for the mounds. In the field the mounds of the N. end are still traceable and are four in number, the two outer ones, as shown in the O.M., not being quite concentric with the two inner ones, and probably indicating an attached outwork. Excluding them, the over-all length on the O.M. is 500 feet. The breadth of the oval cannot be
- Dabshood, Earnscleich.—Two miles and a half N.E. of Lauder,
 yards S.E. of the deserted farm-house of Earnscleuch, 1256 feet

above the sea, and 500 above the Earnscleuch Burn, which flows are part of a mile to the W. of it. The site is a commanding one, on the last conspicuous height of a spur of the Lammermons, overlooking Lauderdale, and the fort is much the largest in the district. Its great elevation has not saved it from the plough, but enough remains to show its general form and structure. From a careful plan by Mr Frameis Lynn, it is an oval, much broader at the S.E. than at the N.W. end, measuring 800 by 600 feet over all, and 650 by 450 within the defensive lines: the O.M. makes it somewhat less, The defences consist of two concentric earthen ramparts, with a trench in front of each, the whole doubtless extending originally all round, although now entirely destroyed by the plough in the middle of the N.E. and S.W. sides. Where best preserved the inner rampart is about 6 feet, the outer one 8 feet above their respec-



Fig. 13. Dabshood, Earnseleuch.

tive trenches. The structure of the outer rampart (fig. 13, on double the usual scale) is peculiar, the crest (A) being grooved to a depth of from a few inches to 2 feet all along the parts preserved on the N.E. and S.E. sides, where attack was easy from the level or gently sloping ground in front. The width of this grooved or double rampart is from 40 to 45 feet over all, and of the grooved top about 16 feet. The inner rampart has a very trilling elevation above the interior, and in some places is altogether wanting (this description is from information by Mr F. Lynn).

Mid-Lauderdale.

In this division I have placed the forts near Lander, including four on Blythewater, although that is really one of the head waters of the Leader.

45. Nether Bowerhouse is so printed in the O.M., but Bower is written

Bour in old documents, and the pronunciation is Boorus; 3 miles N.W. of Lauder, \(\frac{1}{4}\) of a mile W. of the farm-house of the above name, 1000 feet above the sea, on the eastern slope of Collie Law (1255), but with little natural strength. The site is planted, and has been quarried. The O.M. makes the fort a somewhat straight sided oval, about 350 by 240 feet over all, and 270 by 170 within the two mounds, which seem to be of heaped-up earth and stones, although at one place where broken in upon by quarrying, on the line of the inner mound, some well-fitted drymasomy is exposed, founded on the rock. The inner rampart, where best preserved, is about 6 feet high and 30 across, the outer somewhat less; the two, with the intervening trench, occupying a width of 75 feet. Marshy ground close to the W., with a dry watercourse descending the hill from it, indicate a water-supply before drainage of the country.

46. Blackehester.—Two miles N.W. of Lauder, 800 feet above the sea, in a position of no natural strength except to the E., where a short steep slope precedes the gentle descent to the dale. The mounds are planted and the interior is quarried. The shephent's house of Blackehester, with its appurtenances, occupies the S. side, and has caused the destruction of that side, but elsewhere the mounds are well preserved. They are three in number, the outer two being close together and of unusual size, the inner one somewhat retired and of less strength. Where measured by me, the three "rings" occupied a width of 135 feet, the outer one was about 40 feet across and 5 feet high to the outside, the middle one 50 feet across and 12 feet high to the outside,

A shallow trench in rear of the middle mound was probably excavated to get earth to add to the height of the rampart. On the W, and weakest side there is also a slight trench in front of the outer rampart. The mounds seem to be mainly of earth, as very little stone is visible. According to the O.M. the fort is circular, 500 feet in diameter over all, and 300 inside. Two or three small springs, close outside to the E, indicate a good water-supply formerly.

47. Chester Hill, Lander.—Half a mile S.W. of Lander church, on the S.E. side of Lander Burn, on an eminence upwards of 100 feet above it, 750 above the sea. On the O.M. it is circular, 320 feet in diameter over all, 250 inside, with two rings, nearly complete, though partially quarried. I am informed that scarcely a trace of it remains.

48. Havefaulds (fig. 14, adapted to my scale from Mr Milne Home's plan, Prov., ix. 466).—Three-quarters of a mile W.N.W. of Blythe farm, 170 yards N.E. of Blythe Water, 200 feet above it, 1000 above the sea. The ground falls gently from it to the S.E., and steeply to the S.W., but rises gently northwards to a lower summit (1090) of Scour Rig (1191), one of the numerous broad-backed hills or



Fig. 14. Harefaulds, Lander.

ridges which descend southwards from the Lammermoors. This fort, although not recognised as such on the O.M., is one of the most interesting in Southern Scotland, as it contains remains of numerous stone huts. They are more or less circular, although some partition walls are straight, and some of them still stand to a height of 3 or 4 feet. According to Mr Home, they vary from 8 to 15 feet in diameter. His plan shows only about twenty, not a fourth part of those that are traceable, probably because he only gives those of which the remains are substantial.

He thought that some of the cells were recessed in the wall on the N.E. side, and that the wall was thicker there, but it seemed to me that this appearance was merely due to a congeries of cells abutting on the wall. They are almost all connected directly, or by opening into each other, with the rampart wall, particularly on the N. and E., where, including those not marked on the plan, they are two or three deep in some places. The fort has suffered terribly from dilapidation within the memory of man, but facing-stones remaining on the N.E. show that the wall was 11 feet wide there. The main and probably only entrance is from the S. by a kind of natural hollow way formed by parallel rocky mounds, which ran 30 or 40 yards outwards. But these natural flanking defences are not now closed by any work running towards the wall. Possibly there was another entrance a little further W. on the same side. Extensive "rigs" testify to cultivation outside by a crofter population, which I am informed by Mr. John Romanes, F.S.A. Sewt, was formerly settled here.

49. Blythe,—350 yards S.W. of Blythe farm and the same distance cast of the Blythe Water, about 150 feet above it, and 850 above the sea, on a prominent level spot, with gentle declivities. Represented on the O.M. as a regular oval, with two ramparts, the outer one the wider of the two, and measuring 370 by 280 feet over all, 280 by 200 internally. These ramparts are still traceable as low, rough, hard mounds, and the interior feels hard and stony under foot in many places. Some good-sized stones lie about, and a few fragments of curved foundations, one of which is a semicircle of stones, are visible. Probably this was a stone fort, with buildings inside; but if so, it has been long plundered, and only its bard surface has saved it from total effacement by the plough, which has come close up all round.

50. Hengh,—On the east side of Blythe Water, 200 yands above its junction with Brunta Burn, 700 feet above the sea. A semicircular work, the straight unfortified boxe, 230 feet in length, resting on a steep slope to the stream, 40 to 50 feet below. The level interior, 105 feet in greatest breadth, is raised only a few feet above the field to the east, and there is no parapet to the scarp, but at the ends of the base considerable mounds, with a trench at the south end, cut off the site from the continuation of the bank-edge. In rear of the scarp, on the

northern half of the semicircumference, there is a row of four squarish slight hollows, and a platform or roadway 12 feet in width.

I am informed by Mr II. H. Craw, F.S.A. Scot., that his father demolished more than one fort on a farm in this neighbourhood; but I do not include these, as no precise information can be got about them.

LOWER LAUDERDALE.

As the Leader receives no feeders of any size in the last six miles of its course, the dale contracts more and more in width, till towards the mouth of the river the ground which it drains is only a mile or two in width. In this stretch only one fort remains distinctly recognisable, but there is good evidence that at least five others existed formerly.

Legerwood.—A mile S.W. of the church, on a height upwards of 800 feet above the sea. A circle, 260 feet diameter, faintly marked on the O.M. No remains now.

52. Il'est Marriston.—200 yards S.W. of the farm of that name, 1\(^1\) miles N.E. of Earlston. Marked on the O.M. by a dotted circle, 400 feet in diameter, as a site only. It is still traceable by a difference in the vegetation in a slightly elevated field 500 feet above the sea.

The Rev. Mr Milne makes brief mention of four "camps" as existing early last century on the west side of the Leader, in the lower part of its course. Although none of them are marked on the O.M., at least three are still traceable. 53. Bridgehaugh.—" Near the Leader, opposite Bridgehaugh, there is a considerable camp, greatly defaced by tillage." This is all that Mr Milne has to say of it. Probably the site is not now recognisable, but I have no further information.

54. Ridgewalls.—Situated 12 miles W.N.W. of Earlston, close to the E. of Carolside Mains, or Cairniemount, farm-house garden, about 750 feet above the sea. Mr Milne describes it as "a large camp, a mile N.W. of Clackmae, with three deep trenches; the space between the trenches so large that it is turned to arable ground, about \(\frac{1}{2} \) a mile in compass." This description, except in regard to size—a feature of the "camps" always much exaggerated by Mr Milne-was confirmed by a plan on an old estate-man, once seen by Mr Dunn, F.S.A. Scot., Earlston, but which has unfortunately disappeared. Mr Francis Lynn, however, has found distinct enough traces of the nearly flattened mounds, particularly in a plantation at the E, end, although even there the ground, including the mounds, is marked with the old-fashioned high rig, showing that it had long been cultivated, before the trees, now about eighty years old, were planted. Mr Lynn observed that the inner ring is not concentric with the onter ones, but retires 84 feet from them (measured from crest to crest) on the S.E., and approaches within 28 feet of them on the N.W. The dimensions of the inner oval are 188 by 138 feet, its long axis being N.E. to S.W., while that of the outer rings is from N.W. to S.E. The "compass" of the outer mound is about 300 yards, instead of 1 a mile as stated by Milne.

55. Chesterlee—(fig. 15, from a plan by Mr Lynn)—about \(\frac{1}{3} \) of a mile

E. of Carolside Mains, and \(1\frac{1}{2} \) N.W. of Earlston, 700 feet above the sea,
on the end of a ridge, looking down on the Leader 300 feet below, is
said by Mr Milne to be "about \(\frac{1}{2} \) a mile in compass, with one single deep
ditch." Mr Lynn finds it still distinctly traceable as a rectangular
work, but only 300 yards in compass, the length and breadth being 333
and 220 feet. In a plantation at the W. end a part of the mound, 28
feet across and 3 feet high, still survives; a fragment at the S.W. angle,
the greater part of the E. end, and the N.E. angle also remain, though
more levelled by the plough, the E. end being 35 feet across and 2 feet
high. The north side is only traceable by a change of colour in the

crop or stubble. The "deep ditch" of Milne seems to be entirely filled up, but "indications of a second wall," in front of the mound in the plantation, seen by Mr Lynn, may be a remnant of the counterscarp of the ditch.

56. Brownhill is mentioned by Mr Milne as "a small camp on an eminence near Earlston, about a mile to the S. of Ridgewalls," Mr Dunn, F.S.A. Scot., Earlston, informs me that this fort is still traceable by a difference of colour in the vegetation of the field when under crop. The position is very strong, between two ravines.

57. Black Hill, Cowdenknowes, Earlston (fig. 16, S.W. end of the

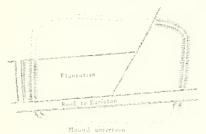


Fig. 15. Chesterlee, Lander

fort).—One mile 8.E. of Earlston, 1½ N.N.E. of the junction of the Leader and Tweed, ½ a mile E. of the Leader, and 650 feet above it, on the top of a conspicuous and finely shaped hill, rising 1031 feet above the sea. The top is a narrow ridge running from 8.W. to N.E., the highest part of the ridge being the straight edge of the N.W. face. From this edge the interior of the fort falls gently to the 8.E. for a breadth of about 150 feet, when another edge is formed. From both these edges the fall is steep and stony for about 400 feet, that to the N.W. interrupted, however, by a sloping shelf 40 or 50 yards wide, about 40 feet lower than the top: the N.E. end of the ridge folds on a broaderhaunch of the hill, not included in the fort. From the highest point (A) of the ridge and hill, which is at the S.W. end, the ground falls gently for about 100 yards, and the width contracts gradually to a sharp point (B). This point was probably included within the fort, but the traces of its defences are now obscure. From it there is a rough, steep, partly stony descent of 400 feet to N.W., S.W., and S.E.

The defences are greatly dilapidated. The N.E. end still shows three



Fig. 16. Blackhill, Cowdenknowes, Earlston,

concentric curved grassy mounds, rising one behind the other, only a few feet high, cutting off the fort from the eastern hannel, which is separated from the mounds by a trench-like, wide depression. The entrance appears to have been towards the S. end of these mounds. Probably the defences from here along the S.E. face consisted of two walls, but only the foundations are traceable by slight mounds and terracing. On the N.E. face a slight mound remains at the foot of the slope from the ridge on the shelf 40 feet below, already mentioned, and a footpath or terrace (C D), slanting down the slope from the S.W. end, may represent an inner line. It is at the S.W. end that the remains are most distinct, consisting of four short, curved, concentric, stony mounds (E to L) a few yards below the top, and occupying a width of 65 feet. These all begin at the N.W. edge, and curving round southwards, the innermost is apparently continuous with the inner line of the S.E. face (at E). The other three are soon lost on a little flat space on the S.E. slope (F), from which terraces (F H and L G) descend castward and westward to join the terrace (G H), which marks the outer line of defence on the S.E. face, Lower down than the four mounds, the gentle descent towards the point (C G) at the outer edge of the lower of these terraces, probably mark the extreme S.W. point of the defences. It is continuous with the outer line or terrace (G H) on the S.E. face, and with the slanting path or terrace (C D) on the N.W. face.

The interior, which has a pleasant exposure to the S.E., and commands a magnificent view, appears to have been rudely terraced, and is pitted with numerous small, shallow, saucer-shaped excavations, for the most part very slight and indistinct, but two (one on each side of 1) are very distinct on the summit of the ridge, near the very top (A), which itself is surrounded by an imperfect double circle of big stones embedded in the soil, possibly the foundations of a wall 6 feet thick. enclosing a space 18 feet in diameter, and now covered with stony debris. Besides the pittings within the works, there are two, deep and well marked, close together, between the two outer mounds (N.W. of L). another where the inner mound passes into the upper S.E. terrace (at E), and another on the flat space to the S, of the mounds (near L), It is to be presumed that these excavations mark the foundations of buts. It is recorded that early in the century three stone ramparts and ploughed the top to grow turnips. It is also said that these walls were vitrified. I noticed no vitrifaction, and other observers have assured me that there is none. Hibbert found "only a small cairn. vitrified on the side where little or no defence appears;" and this may have been the origin of the belief that the fort was vitrified.

(F.) The Tweed, from the Leader to Kelso.

In the pretty extensive district drained by the smaller tributaries of the Tweed in its course of 11 miles (not counting its windings) from the Leader to the Teviot, and including the Eden, with its course of 18 miles, there are but five forts, two of them on the Tweed itself, one to the N. and two to the S. of it. The greater amount of cultivation, as compared with other districts, seems hardly sufficient to account for the deficiency, as much of this cultivation is but recent, and extensive tracts are both elevated and still little under the plough.

58. The Knock, Huntlywood, the only fort in the large part of the district (nearly 10 miles square) N. of the river, although not in Lauderdale, is so near it, and so separated from any other fort-district, at the very head waters of the Eden, that it might have been conveniently included with the Landerdale forts. The Knock is a gentlyrising but conspicuous little height, in a district of many such, nearly 2 miles W. of Gordon Station, 11 E.N.E. of Legerwood church, 891 feet above the sea, and 300 above the Eden, which flows 1/3 of a mile to the N. of it. A double wall has surrounded the summit, of a regular oval form, 520 by 300 feet over all, and 420 by 220 interior measurement (O.M. 25 inch); the inner one is at the edge of the tolerably level although rough and irregular interior, the outer one a little way down the slope. The stones have been almost entirely carried off, but the walls can be traced all round, except where quarried away at the W. end, as low broad mounds, breaks in which show rudely built stones, but no facing. The walls have apparently been of less width and are nearer each other, at the more defensible sides, than at the easily approached E. end, where is the entrance. Thus the total width of the defences in the middle of the N, side is about 40 feet, but at the entrance it is 60 feet, the outer wall remains being about 15, the inner about 30 feet wide, and the space between about 18. There are some questionable indications of chambers on

each side of the entrance in the inner wall. There is no vestige of a trench. There are some faint and doubtful saucer-like depressions in the interior. Fine hexagonal basaltic columns crop up in the interior and are exposed in the quarries.

The considerable portion of the district S. of the Tweed (about 10 miles by 3) is drained by insignificant streams, and is much under the plough. It contains only two forts.

59. Hovehester, Kippilaer.—Two miles and a quarter 8, by W. of Eildon fort, on a gentle eminence 640 feet above the sea; the greater part of the site is in an inaccessible rabbit-warren, enclosed by a wall, topped by three barbed wires. A fragment at the E. end, outside the warren, consists of a massive curved rampart, with a scarp 6 feet high, descending to a trench 15 feet wide at the bottom, the counterscarp being about 3 feet high. The O.M. makes the fort a very regular oval, measuring 450 by 300 feet internally, but with distinct remains only at the two ends. Mr James Wilson makes the interior only 400 by 220 feet, but his over-all measurements nearly agree with those of the O.M. (550 by 370 feet).

60, Muirhouselaw (fig. 17).-A rectilinear earthwork, 200 yards S.E. of the farm of that name, 2 miles N.W. of Peniel Heugh, and 3 of a mile N.E. of the supposed "Watling Street." The site is quite low, near the foot of a little height well suited for primitive fortification, which rises 579 feet above the sea, and about 70 above the fort. The work was probably a rectangle, but only the S.E., S.W., and part of N.W. sides remain, the rest apparently having been destroyed by the construction of a pond and shuice. The S.W. face (a b in the section) consists of an inner rampart, with a low, narrow-crested parapet, rising fully 6 feet above the trench. The scarp descending from the crest of the parapet slopes steeply for 3 feet, then gently for 6 feet, and again steeply for 9 feet. This peculiar form is unique, as far as 1 have seen, in Scottish forts. The flat, marshy trench is about 7 feet wide at the bottom. The counterscarp is remarkably steep, rising to an outer rampart as high as the inner one, 6 or 7 feet wide on the flat top, and raised only a foot or two above the exterior. On the S.W. face (e f) the formation of the inner rampart is simple, and the outer one is VOL. XXIX.

absent. The ground outside on this face rises gently, and a slight curved entremelment is marked on the O.M., 350 feet from the main work, 800 feet long, and quite disconnected with it. I did not notice this. The remains of the N.W. face (e^i) are also simple in structure, but on the further side there has been a second smaller rectangular enclosure (e), not quite in line with the main work, and without a trench, of which probably about one-half remains. At the N.E angle of

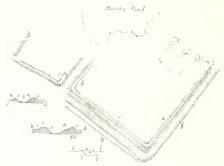


Fig. 17. Muirhouse Law.

the main work are obscure remains of square foundations. The dimensions of the main work, measured along the crest of the inner rampart on the O.M., are 225 by 195 feet.

On the banks of the Tweed itself, in the long stretch of 11 miles to Kelso, there are but two forts, opposite each other at Makerston, one so trilling as hardly to deserve the name.

61. Ringley Hall (fig. 18).—Half a mile S.W. of Makerston House, on the edge of a steep descent, about 80 feet high, to the Tweed, on its south side, and about 250 feet above the sea. It is of the semicircular

type, the base resting on the unfortified edge. It is much destroyed, particularly on the eastern half, by the formation of a road and by quarrying; but there are remains of an inner stony rampart all round, from which a scarp 7 or 8 feet high falls on a terrace from 12 to 27 feet wide. A second scarp, of about the same height, leads to a second terrace on the western half, but if it ever existed on the eastern half it



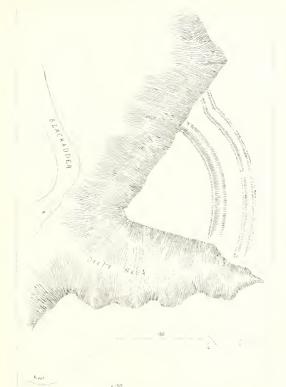
has disappeared. Towards the south there are remains of a stony parapet at the edge of the terraces. To the west the ground continues to fall slightly, but southwards the outer defence is on the level of the road and fields. The nearly level interior measures about 180 by 150 feet within the ramparts. Possibly this was a terraced mote, defended by stone walls instead of palisades. 62. Makerston.—Due north of the last, on the opposite side of the Tweed, on the edge of the precipice, 60 or 70 feet high, which falls to the river. This work is also of the semicircular type, but is of trilling size and strength. The unfortified base of the interior measures only 60 feet, with a radius to the north of 45 feet. To the east, where the approach is nearly level, the defences consist of an outer rampart, not 3 feet high and 15 acress, with an inner scarp about 4 feet high, but without a parapet. To the west the interior is raised about 15 feet above the exterior, and the scarp is broken and irregular. Perhaps this side has been injured by a footpath that skirts it half way up.

(G.) THE WHITADER AND BLACKADER.

The Whitader and Blackader drain a great part of the Lammermoor district of Berwickshire, in their eastward course, before uniting in the Merse, or flat part of the county. The number of forts in the hill country itself is only ten, but at its abrupt termination castwards, on Buncle Edge or the slopes beneath it, there is a remarkable group of 8 fort-sites, at four of which remains still exist. The only other probable fort at the fall of the Lammermoors on the Merse is at the southeast point of the hill mass on Duns Law.

Blackader,

- 63. Flass.—Near the source of the stream, close to the north of Flass farm-house, about 950 feet above the sea, an oval fort, 370 by 200 feet, is marked on the O.M. Apparently it had a single, ill-preserved ring at the time of the Survey, but I am informed that now the remains are searcely recognisable.
- 64. Black Castle Rings (fig. 19).—One mile and a half N.W. of Greenlaw, on the east side of the Backader. From Greenlaw the ground rises gently northwards to a ridge, from which the first view of the extensive southern moorland slopes of the Lammermoor Hills is got. From this ridge the ground falls gently northwards towards the Fangrist Burn, and also westwards to the edge of the steep and deep ravine of the Blackader. Here, some 50 feet below the level of the ridge,



v :50 Fig. 19. Black Castle Rings, Greenlaw.

678 above the sea, and 150 above the stream, the fort is situated on a site evidently chosen mainly for its great natural strength on two of the three sides, as it is deficient in the other usual characteristic of commanding an extensive view, owing to the greater height of the ridge to the south. The position is on a triangular spit, the N.W. side of which dominates a little haugh of the river, falling to the haugh by a bare, gravelly and rocky, inaccessible slope. The S.W. side is protected by an equally inaccessible deep and steep little dry ravine (the Deil's Neuk), which, beginning a few yards beyond the fort, rapidly increases in depth in its short course to the river. Two concentric curved lines of defence, separated by a level space 35 feet wide, each consisting of a rampart and trench, the outer one with a very slight mound thrown out beyond the trench, form the base of the triangle, and protect the interior from the easy access from the east. The last ten yards of the outer line only, at its north end, diverge in a straight course outwards to the edge of the slope, for no apparent reason. The scarps of the ramparts are unusually steep. The height of the inner rampart where highest is 14 feet above the trench; that of the outer one about half as much. The trench of the inner one is narrow, that of the outer one about 8 feet broad at the bottom. The entrance has probably been close to the Deil's Neuk ravine, as the ramparts fall somewhat short of reaching its edge. There is no other break in the inner line of defence, and one in the middle of the outer line may be modern. The fort is a pure earthwork. Not a stone is to be seen about the place, and how its green mounds and interior acquired the name of Black Castle is difficult to imagine, unless they had formerly been covered with heather. The bure slopes which defend it are of a fine red colour.

65. Chesters, Marchmont.—About ³/₄ of a mile S.W. of Marchmont House, on the S. side of the Blackader, at an inconsiderable height above the sea, and close to the east of Chesters farm-house. Entirely destroyed by the present tenant; but I am told by Mr. P. Loney, the land-steward, that its figure can still be traced by a difference in the colour of the vegetation when under crop. On the 6 inch O.M. it is nearly circular, and has apparently two defensive lines, far apart, and nearly complete, 350 feet in diameter over all, 150 internally.

66. Clusters Brue, a quarter of a mile north of the last, and at about the same elevation as it. The remarks made regarding Clusters apply to the present state of this fort also. On the 6 inch O.M. it is represented as an oval of 700 by 450 feet, mainly by a dotted line, but with apparent remains of three ramparts at one place. Both these forts were enthworks (Mr.P. Loney).

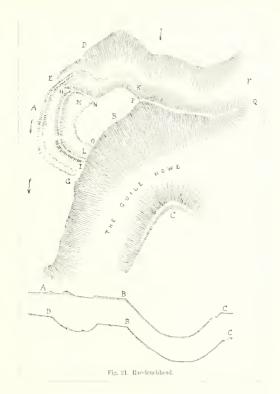


Fig. 20, Rucelenchhead Hill

67. Revolute the ad Hill—(fig. 20)—1 \(\frac{1}{2}\) mile W.N.W. of Landson Home-967 feel above the sea, on a shoulder of Hardens Hill. The cound in the immediate front is nearly level, except to the west, where it by segmily away, and to the north, where it rises for a short distance abunptly. \(\text{o}\) as closely to command the fort by a few yards of height. A narrow trench (A), 4 or 5 feet deep, cuts off the fort from this higher ground, and is continued round the level fronts, but not on the sloping western side.

Within this rises an earthen rampart, 9 to 12 feet above the trench on the cast, 7 to 9 on the north, but only 4 or 5 feet high on the west and south. On the south this rampart is curiously grooved or hollowed along the top (B C), but towards the west, in place of being on the top, this groove descends and runs along the scarp (C D). It is gradually bot to the east and north. In rear of the rampart is a wide, shallow trench (E), varying from 20 to 40 feet in width and 3 to 4 in depth, becoming a terrace on the west (F). There is no rampart or purspet in rear of this trench. The single entrance, from the east, is round the flanks of a straight, low, short mound (G), fashioned apparently by removing the main mass of the rampart in its rear and the whole of the rampart on its flanks. Thus it is not a projecting work, but stands as it were in the trench,—a unique arrangement, possibly not original. The ground, outside and in, and perhaps part of the ramparts, have been ploughed.

68. Raecleuchhead (fig. 21).—Descending 200 feet lower, S. by E. from Raecleuchhill fort, for less than 1 of a mile, by a gentle slope, the visitor finds himself suddenly overlooking another fort across a little, steep, dry ravine (E F), which begins at the W. end of the fort on its N. site, and runs eastward with increasing depth to join, after a course of 300 yards, another narrow, steep, dry, and much deeper ravine—the Guile Howe, which runs on the S.E. side of the fort north-eastward. The site is thus admirably defined and defended on the N. and S.E. of its three faces, but it is open to the W., where the southward slope of Hardens Hill (shown by arrows on the plan), as it runs past, is free of ravines. The western face, therefore, is strongly fortified by two unusually substantial, concentric, curved mounds,—the outer one (E A G) 40 feet wide, though now only 4 feet high; the inner one (II I), where best preserved, 60 to 70 feet across, 8 to 10 feet high to the outside, 12 to 15 to the inside, the greater height inside being due to the original slope of the ground towards the interior. These mounds begin at the edge of the southern ravine, where it is nearly 200 feet deep, and run north-



wards up the slope to the head of the northern ravine; the inner one continues round the fort on the S, edge of this ravine, so as to protect the flank of a wide, natural, or partly artificial trench (L M), which is in rear of the inner rampart; but the outer mound crosses the head of the ravine to its north side, where it is completely and closely commanded from the northern edge of the ravine a few yards above it, and then plunges down to the bottom of the ravine, finally recrossing to its southern side, becoming a kind of terrace (K), which ends at the eastern angle of the fort, 15 or 20 feet down the slope,—a curious and unique arrangement.

A scarp (N O), 5 to 12 feet in height, but without a parapet, defends the interior from the trench-like hollow in rear of the mounds. The interior in rear of the hollow is irregular on the surface, and is rudely triangular, measuring about 300 feet in length by 200 on the base (O.M. 6 inch). From its apex there is a rapid descent by a sharpcrested ridge (P Q) to the junction of the two ravines.

The S. side of Guile Howe is steep, but is 50 to 80 feet lower than the fort slope on the other side, and near the top has a remarkable terrace about 20 feet wide (below C). It may be the remains of another fort, for which the site is admirably adapted; ploughing of which there are evident signs, and the proximity of Raecleuchhead farm-buildings would account for the destruction of other evidence.

69. Dans Law.—It is natural to expect that Duns Law should have been an early seat of occupation, projecting as it does from the skirts of the Lammermoor Hills into the plain of the Merse, as an isolated dome, rising by moderate slopes to the habitable altitude of 713 feet above the sea, and about 250 above the plain, and with a considerable extent of level ground on the top. It is surprising, however, that any evidence of prehistoric occupation should be left, as in the course of ages the medieval town seems to have circled round the skirts of the Law from the N. side by the W., till its modern representative settled down on the S. It is believed that the summit in medieval times was not occupied; and this belief, strange as it may appear, is contirmed by the apparent remains of prehistoric fortification, which could hardly have escaped total destruction had a more modern town occupied the site. The remains consist of two concentric oval mounds, which, obtioned obliterated in some places, can be traced nearly all round. The obtain measurement is about 800 by 600 feet (O.M. 25 inch), and the bases are traced where the ground begins to fall from the nearly level summit, generally gently, but westward somewhat abruptly, the lower line descending the slope a little where it is abrupt, and becoming a terrace. A number of stones lie about, or are embedded in the mounds; and as there are no trenches, the probability is that the fortress was of stone, although whether built or merely heaped up cannot be determined, unless by excavation. A third trifling mound, beginning at the E. end on the S., appears to be part of the defences, but soon sheers off in a straight line westward, and is probably an old fence. In front of it are traces of ploughing, and six or eight swelling "rigs" in front of the lines towards the S.E. are probably due to the same cause.

Towards the S. the lines are obliterated by a levelling of the ground, which, as Mr Ferguson, F.S.A. Scot., Duns, suggests, may have been to form platforms for Leslie's guns. Several irregular mound-enclosures of considerable size, others of a "hut circle" type, are traceable here, and within what seems to have been an entrance, danked by a straight mound, on the East.

Leslie's so called "camp" is a small redoubt 200 feet square, with diminutive square bastions at the angles, formed of earth from a slight trench in front, the mounds being only 2 or 3 feet high at the most, and 3 or 4 yards wide. It is so much retired on the summit as to command little more than the ground within the prehistoric (!) lines which surround it. Duns Law is supposed to have been on the left flank of Leslie's encampment.

Some distance below the lines, on the W., a remarkably well-formed, sharp-crested mound runs for several hundred yards above the slope that falls towards Duns Loch, known as "the Bruntons park." This is the supposed site of the town burnt in Hertford's invasion, 1545, hence called "the burnt towns"; but the mound could not have been to defend it, as the slope towards the summit of the hill rises at once from the mound very abruptly, and completely commands it. On the other hand, it is difficult to regard it as a prehistoric work, intended to defend a town on the summit, as the curves of its irregular outline are concave outwards. It is also much more regular in form than is characteristic of prehistoric mounds. It is of substantial dimensions, rising about 5 feet above the ground towards the summit of the Law, and perhaps double that height above the "Bruntons" slope, into which it runs insensibly.

WHITADER.

70. Wrinklaw Walls (fig. 22).—Wrinklaw (1192), one of the gentlysloped, almost indistinguishable summits in the heart of the Lammermoors, falls gently south-eastward for 600 yards to the site, which is 900 feet above the sea, on the edge of a steep descent, about 100 feet high, to the Dye Water, a mile and a half above Longformacus. The S, end is thus strong by nature, and the E. and W. sides are likewise protected, the former by a little burn which cuts its way down the slope, the latter by an artificial-looking straight dry cut (A B), which runs down the bank at a little distance from the fort. The only sign of fortification on these sides is a trifling mound (C) at the edge of part of the W. face. But the nearly level neck of the projecting site, which faces N.W., is fortified on its southerly half by a regularly formed trench (D E), about 100 feet long, 10 to 13 deep, and 6 wide at the bottom, defended by a parapet 4 or 5 feet high. It is continuous with the deep cut on the slope (A B), save for a depressed bridge of rock (between A and D) which crosses to the fort. On the northerly half, the defence, in its present perhaps modified condition, consists of a platform 9 feet wide, raised only 4 feet above the exterior, faced by a retaining-wall (F G), and with a gentle interior slope. The entrance is between these two halves of the N.W. face.

In the interior are remains probably of three successive occupations. Near the entrance are the house and garden-walls (not in the plan) of a shepherd, who lived there within recent times. Towards the middle are foundations of about fourteen rectangular structures, arranged mainly in two rows, back to back; and at the south end (in the space 11), as I was informed by Mr Craw, F.S.A. Scot, there are shallow, source-like hollows, which at my visit were concealed by bracken. They are of the type found in several prehistoric forts in Berwick and Roxburgh. Between the rectangular structures and the offer has of defence there is a substantial curved mound (1), which stretches about three-fourths across the interior, and appears to have formed part of an

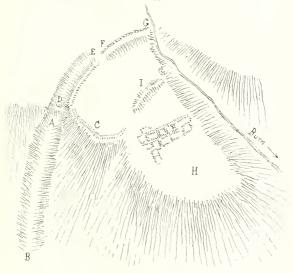


Fig. 22, Wrinklaw Walls,

inner line of defence; and in front of its east end a circular structure, probably a kiln for drying corn, stands close to the little rill.

- 71. Cranshaws.—On the N. side of Thorter Cleuch, a mile S.W. of Cranshaws church, 800 feet above the sea. The O.M. shows ³/₄ of a circle, 260 feet diameter over all, consisting apparently of one rampart and trench (no other information).
- 72. Shannabank Hill.—Half a mile N.W. of Abbey St Bathaus church, 800 feet above the sea, at the edge of a steep descent of 300 feet from a broad-topped hill to Monyant Water, which flows only 100 yards to the W. The O.M. makes it pear-shaped, 300 by 250 feet, consisting of a single massive ring, but with part of an outer one on the E. side, the distance from creat to crest of the concentric ramparts being about 60 feet (no other information).
- Cockburn Law (fig. 23).—Four miles N.N.W. of Duns, 1064 feet above the sea, and 650 feet above the Whitader, which winds round it at a distance of \(\frac{1}{2} \) mile to the N. and E. The defensive lines surround the summit, which rises about 40 feet above them. The general form is an oval of 500 by 380 feet over all, and 330 by 280 interior measurement, according to the Ordnance Plan, but Mr Francis Lynn makes the latter 365 by 248. The E. face, strong by nature, is defended by a single rampart at the edge of a short but steep descent, but the lines are doubled at the S.W. end, where access begins to be easier, and trebled on the W. and N.W., where the approach is quite gentle. All these lines are simple, grass-grown, but stony mounds, a few feet high and of moderate width, without trenches. As they sweep round the W. face they are widely apart at the N. end, but approximate gradually southwards, the distance from crest to crest between any two of them varying from nearly 60 feet to little more than a third of that. The entrances are remarkable for their number and structure, and show an unusual anxiety on the part of the builders to secure a flanking defence. The entrance from the S. (Λ) is where the single eastern line meets the double southern one, and is quite simple; it is flanked internally by a straight rampart joining the outer and inner lines on the W. side. The western entrance (B B) is where the double line from the S. meets the treble line from the N. As it passes from the exterior to the middle line, it is flanked on the N, by the end of the outer line, which ends abruptly here, and on the S. by a little circular mound, the remains,

perhaps, of some defensive work. The passage is straight through the middle line, but then turns sharply to the left and pierces the inner line 20 yards further X., in an oblique manner, flanked on the X. side by a

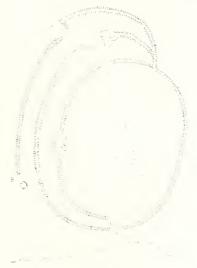


Fig. 93 Coeldson Law

traverse, at first curved and then straight, which connects the inner with the middle rampart. The northern entrance (C) also penetrates the three lines obliquely, but the details are different. In entering the work a flanking defence is obtained by the outer rampart being carried further out on the N. than on the S. side, and being furnished on the N. side with a short arm at right angles inwards, which directly flanks the approach to the entrance. In passing through the middle line, the entrance seems to have been flanked by a considerable mass of structures, perhaps grand-rooms, but mere low mounds remain, one of them, however, distinctly forming a small rectangular enclosure.

There are obscure traces of structure in the interior.

From the whole character of the mounds and the entire absence of trenches, this has been, in all probability, a stone fort.

74. Edin's Hall (figs. 24 and 25).—Half a mile N.E. of Cockburn Law fort, \(^2\) of a mile W. of the southward bend of the Whitader at Elba (Elbow?), 250 feet above that river, and 660 above the sea. A description and plan of this fortress, with its contained broch, by Dr John Stuart, has already appeared in our Proceedings for 1869, but as these have been superseded by a more precise plan and account by Mr John Turnbull, after executations had been made, it will not be out of place here to reproduce his plan (fig. 24) from the Proceedings of the Bernickshire Naturalists Club, and to give a brief summary of his paper. I have added a plan (fig. 25) of the N.W. end of the fort taken by myself in 1893, as it shows some points not sufficiently adverted to by Mr Turnbull, together with a few observations on matters of detail, which differ somewhat from his. My plan is on the same scale as the others in this paper, and Mr Turnbull's is somewhat reduced, to correspond with mine.

The site is on a kind of shoulder or terrace, which is in fact the termination of the gentle declivity of 400 feet from the top of Cockburn Law, before an abrupt plunge is made to the Whitader, 250 feet below. Here, facing the N. and N.E., the fort comes to the edge of the declivity, and the N.W. end is strengthened by a deep hollow, running down to the river; but the S.E. end is bounded by an irregular moderate slope, and the S.W. face by the gentle acclivity of Cockburn Law, and therefore have no natural advantage. The general four of the work is not unlike that of the human ear, the broad end being to the N.W. The



Fig. 24. Edin's Hall, on Cockburn Law, Berwick-have

total length, on Mr Turnbull's plan, is somewhat under 600 feet, and the greatest breadth, towards the N.W. end, about 370. Near the S.E. end the breadth diminishes to about 250 feet. The lines at the broad and narrow ends of the "ear" are curved, but on the two sides they

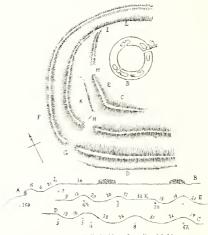


Fig. 25. Edin's Hall, Cockburn Law, Berwickshire.

are nearly straight. At the ends and on the S.W. face they apparently consisted, when Mr Turnbull's plan was taken, of two ramparts, each with a trench in front, and such is their present condition, except that now there is no outer trench at the N.E. end. These ramparts are apparently of earth, although some stones lie about them. Mr Turnbull described the trenches as still from 12 to 15 feet deep in some places, but 11 feet is the most I observed, and generally it is much less. The outer trench is only 3 or 4 feet below the exterior. As the lines bend round at the two ends towards the edge of the steep descent to the river, they fall off in strength, and, in conformity with the usual practice in works so situated in Scotland, they might be expected to cease altogether on a side so strongly defended by nature; but in this case, the two lines are continued along the edge, although their character alters. As shown in my section (fig. 25, B.L.A), the inner line becomes a stony scarp (L) 6 or 7 feet high, which probably may have been defended by a palisade, and the outer one is changed to a stony mound 15 feet wide, supported on the edge of the bank by a retaining-wall (A), neatly built, 18 to 24 inches high. Southward these lines get broken up by enclosures that line the S.E. cutrunce.

There are two original entrances, besides an evidently modern one. That at the narrow S.E. end (fig. 24) is close to the edge of the steep descent, and after penetrating the entrenchments, is continued in the interior of the work as a narrow approach towards an enclosure containing the broch, between straight walls, flanked by stone foundations of various shapes and sizes, minutely described by Mr Turnbull. This passage makes its way for about 60 yards, or 2 of the distance to the broch, which is placed near the further or N.W. end of the interior. The other entrance (G, fig. 25) is situated where the nearly straight ramparts of the S.W. side meet the curved ramparts of the N.W. end. It pierces the two ramparts (G to II) as if making direct for the broch, but is then suddenly blocked by the salient angle of a massive mound (E C) apparently mainly of earth, but with many stones lying on it, the south-eastern arm of which (C), parallel with the ramparts of the S.W. face, is straight, and regularly diminishing in bulk, disappears after a course of about 30 yards; while the northerly arm, straight at first, bends slightly eastwards, and joins the inner rampart of the N.E. face after a course of 60 yards. Mr Turnbull traced the easterly arm also round to the N.E. face (fig. 24), so as, with the northerly one, to form an inner or third line of defence to the broch, but I failed to observe this. Nearly

half-way along the northerly arm there is a break (fig. 25, M), through which may have been the entrance to the enclosure containing the broch (B). If so, the entrance, after encountering the salient angle of the mound (C E), must have turned sharply to the left through a slightly hollowed way between the northerly arm (E) and a platform (K) in rear of the inner ramnart of the enceinte.

In the interior, but 8, of the broch enclosure proper, eight circular and two rectangular enclosures have been excavated (fig. 24). Four of the circular ones, varying in internal diameter from 16 to 47 feet, and with stone walls from 3 to 8 or 9 feet thick, are in the larger space to the 8, of the long eastern entrance-passage, and some unexcavated mounds in this space, abutting on the inner rampart, may contain others,

In the contracted space to the X, of the passage, between it and the steep descent to the river, are four more circular enclosures 16 to 20 feet in internal diameter, and two rectangular depressions, one of which is partially enclosed by a wall, and measures about 12 by 10 feet internally, but the other is indistinct. There are considerable remains of paving in some of the circular floors, particularly near the entrances.

The broch is notable as being one of the very few found S. of the Forth. It is also the largest known example, the dimensions as given by Mr Turnbull being—

As shown on the plans, the wall contains the chambers and beginning of the staircase characteristic of the brochs, although the height of the wall now nowhere exceeds about 6 feet.

The forts in the following group, though not all strictly in the Whitader district, are so closely connected with each other that they cannot properly be separated. They are situated where the undulating table-land of the Lammermoors ends eastwards by a sudden dip from Buncle Edge (750 to 850 feet) to the valley through which the coast line of railway sends off a branch southwards to supply the Merse or lowlands of Berwickshire. Buncle Edge faces S.E. and is about 2 miles long, but the high ground continues to run eastward for 2 miles more.

On the Edge and the slope to the valley below no less than ten fort sites are marked on the O.M., but there is nothing to be seen now on three of them, and the claim of the remains on three others to have been forts is questionable. Altogether there has been a remarkable group of apparently prehistoric enclosures here, but only four of them can now be proved to be forts.

75. Warlawbank, the most northerly of the group, is on the top of Horsley Hill (860), an eastern prolongation of Buncle Edge, and lies 100 yards W. of the farm-house of Warlawbank. The top of the hill is a broad-backed ridge, so that the site is almost level. The oval fort, much flatt-ned by frequent ploughing, consists of two concentric mounds with a trench between, with a third mound at the E. and weakest end. From crest to crest, the distance from the inner to the middle rampart here is 12 feet, and from the middle to the outer one 30 feet. In some places the trench is still 5 or 6 feet deep below the interior. The dimensions of the fort on the O.M. are 480 by 330 feet over all, but Mr H. Hewitt Craw, F.S.A. Scot., who paced it for me, made it somewhat less. The interior, from crest to crest of the inner rampart, he made to be 357 by 225 feet. Probably this was an earthwork, although a good many small stones lie about the mounds. The single entrance is from the S.E.

Fosterland Burn.—About 1200 yards S. of the last, 200 yards E. of the burn, and a little more than 600 feet above the sea, the "supposed site of a camp" is marked on the O.M.—I did not go to it.

An almost level walk of a mile from Warlawbank along Horsley Hill leads to the X, end of Buncle Edge and the Dogbush plantation, a narrow tir-wood which lines the Edge without a break for 2 miles, sending tongues down the slope here and there, making Buncle Edge a conspicuous landmark from great distances to the E, and S.

76. Banele Edge No. 1,—120 yards from the N. end of the plantation, completely crossing it, and emerging slightly on the elevated moor to the W., and on the slope to the E., is an oval fort, 510 by 390 feet over all on the O.M., but which by Mr Craw's pacing is reduced to about 440 feet by 360 feet. The single mound and trench occupy a width

of 30 feet, and the trench is nowhere more than 5 feet below the crest of the mound; breaks in which, however, show so much stone, that in all probability we now see the mere overgrown debris of a stone fort.

The interior has been quarried, and several ramps that cross the trench have probably been caused in quarrying operations, or in plundering the wall of its stones.

A few yards to the S.E. of this fort a straight entrenchment runs north-westward, partially in the wood, but mainly in the open moor, for a total length of 600 feet. About 750 feet south-westward a similar entrenchment runs parallel to the other, also partly in the wood, partly on the moor. The ends of these in the moor are connected by a slightly curved entrenchment, 750 feet long, convex outwards. Thus three sides of an enclosure are formed, the fourth side, towards the S.E., or edge of the hill, being open. The entrenchment consists of a slight mound and trench, altogether only about 15 feet wide, the mound being only 2 feet high at most. It is marked "camp" on the O.M., but has probably been a fence in connection with the neighbouring fort; the length of the sides is taken from the O.M. (6 inch).

About 550 yards 8, by W. of No. 3, on the slope of Buncle Edge, in a field more than 600 feet above the sea, near the farm-house of Marygold, the site of a "camp" is marked on the O.M. I did not visit the spot, but, looking from above, could see no remains.

Skirting along the plantation for \(^1\) of a mile, another enclosure is met with like the one in connection with Buncle Edge fort No. 1. It is entirely on the moor, however, the length of the two short, parallel, straight sides, which start from the edge of the plantation, being respectively 50 and 300 feet, while that of the curved side on the moor is no less than 1500 feet. Towards Buncle Edge the enclosure is quite open. The structure consists of a mound about 18 feet across and 3 feet at most, above a trench 3 feet wide at the bottom, with another trifling mound to the outside. This also is called a camp in the O.M., but although of stronger make than the last, it too is more likely to have been a fence in connection with one or other or both of the two following "camps."

One hundred and fifty yards S.W. of this enclosure, outside the

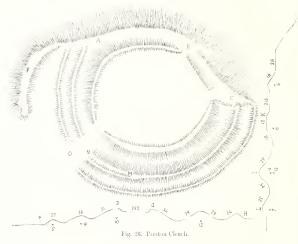
plantation, on the moor, the site of a camp is marked on the O.M. No trace of it appears to remain.

77. Buwele Elipe No. 2.—One hundred and fifty yards from the last, and \(^3_4\) of a mile S.W. of Buwele Elipe No. 1, in the plantation, is a fort of much the same character, which must have been almost in contact with the large enclosure just described. It is an oval, measuring over all 510 by 405 feet on the O.M., but according to Mr Craw's pacing only 324 by 303 feet, of which the interior claims 243 by 219. The defences consist of a single mound rather more massive than that of Buwele Elipe No. 1, with a trench in front; and in some parts an outer, much smaller mound. The main mound is rough and steep, a good many large stones lie about it, and the probability is that it was a stone wall, now demolished, and overgrown with grass, bracken, &c. The interior, which slopes gently to the S.E., is also rough and irregular. Near the S.E. end a straight mound traverses the interior, but only extends half way across it from the S.

About 500 yards S.W. of the last, 700 feet above the sea, on the phonded slope, where it suddenly becomes steeper, looking down upon and about 350 yards due W. of the poor remains of Buncle Castle, 200 feet below it, a "camp" is represented on the O.M., oval, with a single enceinte, and measuring about 240 by 150 feet. It is now quite indistinguishable as a fort, although the surface is still unploughed. The position is not a natural one for a fort, being not at the edge of a steep descent, but on the beginning of the descent itself, and it looks almost as if it had been quarried. The surface is covered with irregular grassy mounds and scattered heaps of small stones. This may have been an early village rather than a fort.

78. Preston Clewch (fig. 26).—Six hundred yards S.W. of the last, at the S.W. end of Buncle Edge. The road here, ascending from the Merse to Lammermoor, winds through a little pass called Preston Clench. On the N.E. side of the road rises the commencement of Buncle Edge and the Dogbush plantation, and on its S.W. side a steep ascent of about 30 to 40 feet forms the N. front and part of the E. end of a strong and unusually well-preserved fort. At the W. end there is also a rise in two stages from the road, but the whole S. face has no natural advantage.

the ground in front being nearly level with it. This disposition of the ground causes a variety in the kind of defence. On the strong X, and N.E. there is simply a scarp, partly furnished with a parapet, descending to a level terrace (A B C), 6 or 8 feet below, cut on the slope; but



the weaker W. end and the S. front, which has no natural strength, are fortified by three concentric ramparts with intervening trenches. The inner rampart at the W. end thoroughly commands the two outer ones (section D F), as they are on the slope below it, but beyond there is a level space about 40 feet in width, bounded westwards by a natural mound (F in plan), behind which a considerable body of assailants could shelter, completely concealed from the fort. On the S. and S.E. (sections G II, K L) the fortifications assume more formidable proportions, the inner trench being from 10 to 12 feet deep in places, and the outer one 6 to 7 feet below the top of the outer mound, which rises only a foot or two above the exterior. It is singular, however, that to the S. the middle rampart (I in section K I L) is much higher than the inner one (K), completely cutting off its view of the outer rampart (L) and country beyond. It is possible, indeed, that the inner rampart was originally raised to a higher level, perhaps by a wooden or stone erection, as the top is tlat and 12 feet wide. The crest of the middle rampart, on the contrary, is sharp, but towards its W. end it gives off a narrow path or terrace (M N) cut on the inner side of the rampart, and descending westward, of no apparent use, as it is too low down to serve as a banquette; perhaps this terrace is not original. The ramparts end abruptly on the East at C, but in such a manner that their trenches command and flank the terrace (BC) at the N.E. end of the fort. The entrance has apparently been at the N.W. end (B) of this eastern terrace, and is flanked by the E. end of the higher and wider terrace (A B) of the N. front. From the S.W. a wide opening (O) penetrates the ramparts, but it is either entirely modern, or if it was another entrance, it has been much altered and its original character destroyed. The interior slopes gently from N. to S., and apparently contains some obscure foundations, but the indications are too dubious to be deciphered without excavation. According to Mr Craw's pacing, the fort measures 462 by 368 feet over all, and its interior 252 by 216 from crest to crest of the inner rampart.

79. Habehester—(fig. 27)—on the western edge of Lamberton Moor, where the elevated ground falls steeply towards Basselrig farm, although not in the Whitader district, is the only fort in the long stretch of 10 miles of high ground from the Bunder Edge group to the sea, overlooking that district, and therefore may be fittingly included here. It stands 700 feet above the sea, and commands an extensive view towards the N. and W. The southern half of this oval fort is very well preserved, while the northern half, in a different parish and farm, is

totally obliterated. Probably it was never so massive as the southern half, because the defences of the latter begin to lose strength as they bend northward, and the natural strength of the northern half was greatest, as it was near the edge of the steep descent. The existing defences consist of two remarkably high and regular, narrow-crested mounds, with two trenches, the inner one being in places 9 or 10 feet deep, while the outer one in some parts is 6 feet below the top of its counterscarp, which has no parapet. These defences end castward at what has been the entrance, as seems proved by the neat rounding off of the inner trench. But where they near the entrance the ramparts have been destroyed, as the outer trench falls short of it by 20 yards, and the inner rampart, from a distance of 12 yards, falls rapidly in height



Fig. 27. Ramparts, Habehester.

till it disappears at the entrance. The length of the inner rampart I paced as 420 feet along the crest. The over-all length of the long axis of the oval on the 6 inch O.M. is about 450 feet. Close in rear of the parapet of the inner rampart is a zone about 12 feet wide, occupied by a series of little mounds and hellows, probably the remains of some kind of huts, and in rear of these is a slight hollow like a roadway between the zone of mounds and the centre of the interior. The fort is evidently an earthwork in the main, but there are some signs of a wall having been erected on the top of the inner rampart, which, however, may have been modern. I give (fig. 27) a view of the unusually well-preserved ramparts and trenches.

80. Chester Hill, Ayloun.—A mile and a half E.S.E. of Aytoun church, 539 feet above the sea, on the edge of a steep bank. The O.M. represents the fort as of an oval form, measuring 450 by 250 feet, the X. side being formed by the bank, and the S. represented by a dotted line, as if merely traceable. I understand that no vestige now remains.

(II.) Group of Forts near St Abe's Head and Coldingham Lock.

This remarkable group (Map, fig. 28) comprises ten of fourteen forts marked on the O.M. in the hilly district that lies between the Eye Water



Fig. 28. Position of Forts at St Abb's Head and Coldingham Loch.

and the coast. Seven lie within a radius of half a mile from the S, angle of Coldingham Loch, and all ten in a space 2 miles long and half a mile wide, where now there are but three farm-houses, and probably not a score of inhabitants. In the map the position of the forts is shown by letters which correspond with those in the text; the figures give the height above sea of the cliffs on the coast and of some parts inhand. The forts may be divided into a St Abb's group of two and a Loch group of eight, as the two groups are separated by high ground which conceals them from each other,

81. The St Abb's group is situated on the S, side of a little valley that descends to a level of only about 50 feet above the sea. On the N, side rises the steep slope to the edge of the St Abb's cliffs, which presents a fine, irregular outline against the sky as seen from the forts. Eastwards they command a fine view towards Coldingham shore and

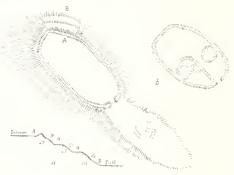


Fig. 29. Forts near St Abb's Head,

Eyemouth. They thus look from no great distance upon the supposed sites of Ebba's Xunnery to the X and of 8t Abb's Kirk to the E. Their green sites, still undefaced by the plough, rise conspicuously from cultivated fields.

a.—(figs. 28 and 29)—stands about 270 feet above the sea, 3 of a mile due S. of St Abb's Head, on a steep little flat-topped knoll, 40 feet high at the N.W. end, but diminishing to the S.E. till it is nearly level with the field from which it rises. A single rampart, apparently of earth and stones girdles the N.W. half of the top, and has an entrance towards the S.E. half, or accessible neck, upon which are remains of other mounds, too much destroyed to be interpreted. On the steep N, slope are two terraces (between A and B), 9 feet wide, conspicuous from afar. The dimensions of the oval enclosure are about 210 by 96 feet. In the interior are some rectangular grassy "foundations."

b.—(figs. 28 and 29)—a quarter of a mile N.W. of the last, 370 feet above the sea, on the highest part of an elevated field, but with no immediate natural strength. It is of a squarish oval form, and has a single, much dilapidated rampart, apparently of earth and stones, with an entrance to the S.E. From the W. side of the entrance a "foundation" runs straight into the interior for about 70 feet, then curves as if to rejoin the rampart on the W. side. Within the space thus almost enclosed, and at its N.W. end, are two "hut circles," about 25 and 21 feet in diameter respectively. Outside this enclosure, and abutting on the E. rampart, is another, 32 feet in diameter. The over-all dimensions of the fort are about 175 by 120 feet.

82. Coldingham Loch group.—The loch lies about 430 feet above the sea, in a hollow \(^1_4\) of a mile S. of and 50 feet below the edge of the elifis that run westward from St Abb's Head. It is of a triangular form, with a straight base 450 yards in length, running from S.W. to N.E. It rapidly contracts to a narrow point to the N.W. Its length is about 700 yards. Around the loch, although not all in sight of it, are no less than eight forts, if they all deserve the name.

c.—(fig. 30)—lies 1100 yands due W. of b, the nearest and highest of the St Abb's group, but, like all the members of its own group, at a much higher level. It is about 540 feet above the sea, and is situated about 150 yards from the E. angle of the loch and 250 from the chiff edge, on the top of a rocky knoll, from which the ground slopes pretty gently, except northwards, where it falls abruptly and roughly, a height of about 30 feet. It is oval in form, and is defended by (1) an inner rampart running all round, and measuring about 100 feet along the top; (2) a middle rampert, not continued on the steep N. side: (3) an outer rampart, also deficient on the N. side, remarkably distinct and regular.

on the W. and S., but apparently stopping abruptly on the E., unless it is represented by a not very well marked terrace.

The entrance is to the S.E., and passes straight through the ramparts. On either side of it there is a complex network of "but circles," constructed partly in the ramparts, partly between them, only one being in the interior, close to the W. side of the entrance. The total number that can be distinctly made out is six on the W. and as many on the E. side of the entrance, and they vary from 18 to 30 feet in diameter from crest to crest of their mounds.



Fig. 30. Fort near Coldingham Loch.

The dimensions of the fort over all are about 280 by 230 feet, the interior being 170 by 125, and the width across the three ramparts on the S. side 105. The interior slopes from X. to S., and is bisected by an outcrop of rock from E. to W. Openings in the turf of the ramparts show small stones unmixed with earth, and there are no true trenches.

d. About 400 yards S.E. of the last, and the same distance E. by S. of the E. angle of the loch, 450 feet above the sea. A doubtful fort. It is of a squarish oval form, with a single slight rampart, entered from the X.E., and is completely commanded on the S.E. by a little height, which rises directly from the rampart by a steep rocky slope 10 or 12 feet high. The enclosure measures 100 by 70 feet over all.

e. About 500 yards S.W. of the last, and somewhat less S. by E. of the E. angle of the loch, 450 feet above the sea, on a good defensible site, with short, steep descents, except northward, where the approach is gentle. The single inclosing mound is much injured by a quarry and general dilapidation, but is substantial in some parts, and is stony. It runs in a semicricle round the southern half of the site, but assumes a straight course on the N. Thus only the half of the elevated site is enclosed, but it is probable that the other half was originally also taken in, as is indicated by some obscure remains. The original form, therefore, may have been an oval, bisected by a central rampart. The dimensions of the existing enclosure are about 160 by 140 feet over all. The straight rampart is 105 feet long at present, but is broken off by the quarry at the W. end.

f. A quarter of a mile 8, by E. of the 8, angle of the loch, but not in sight of it, 485 feet above the sea, on the top of a gentle rise, and much impaired by quarrying and general decay. It seems to have had a single rampart, apparently of earth and stones, running in a somewhat irregular oval course, except on the N., where it is straight for about 100 feet. The dimensions over all are 200 by 170 feet.

g. Close to West Loch farm-house, 100 yards S.E. of the S. angle of the loch, and 492 feet above the sea, there is a work of doublful character. It has no natural strength, and consists of two circular mounds, the inner of which is much nearer the outer at the X. side, where the entrance is, than elsewhere. The outer mound, apparently of earth and stones, is irregularly formed, and apparently well preserved, but it is only 3 or 4 feet high, and of slight width. It is slightly trenched in front. The interior is planted, and but for the too regular and substantial character of the rampart, and its entrance, the work might be taken for one of those circular plantations surrounded by a mound which are so frequent in Scotland. The inner mound is only

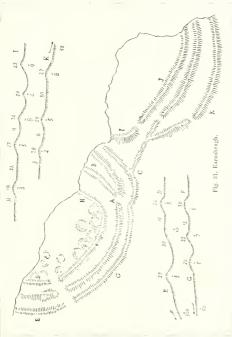
about a foot in height; its diameter is only about 40 feet, and that of the whole work 130, on the O.M.

h. This work is placed on the O.M. 500 feet above the sea, and 200 yards S.W. of the W. end of the loch. It is represented as nearly rectilinear, with a single rampart, and measuring 120 by 90 feet over all. I could not find any trace of it on or near the spot marked on the map.

i. Earnsheugh (fig. 31).—This is the most important fort of the group, Its situation also is one of the most remarkable in Scotland, perched as it is on the edge of the highest point of the magnificent line of cliffs that fringes the Berwickshire coast. Here the precipice rises almost perpendicularly from the sea to a height of exactly 500 feet, or about 300 above the cliff at the renowned headland of St Abb's, which lies a mile and a quarter due E. of it. The fort consists of two parts, each rudely oval in form, one side in each being the unfenced edge of the precipice, and the other a triple rampart on the landward side, where the ground slopes, directly from the edge, gently towards the marshy hollow at the N.W. end of the loch. The two parts touch each other in their long axis, but their ramparts are only partially connected, and in such a manner that each part is separately defensible. Additional strength is given by a steep descent 300 feet deep to Wester Dean Burn on the extreme W., and by indentations of the cliff at the extreme E. end, and in the centre where the two parts meet. Owing to the fall in the ground landward, the fort, viewed from the opposite side of the loch, which lies 70 feet below the edge of the cliff, appears to be on a little height, called Tun Law.

The Western division or fortlet appears to be the stronger of the two.

Its defences consist first of an inner rampart, rudely semioval in plan,
and ending on the edge of the cliff at either end. Its scarp falls upon
a platform beginning at the entrance, which is near the W. end, where
the position is most defensible, and gradually expanding to a width of
30 feet at the E. end. This platform, with the niddle rampart in its
front, constitutes the middle line of defence, the outer one being formed
by the third rampart, which, however, has no platform in its rear. As
the defences approach the E. end, they are medified so as to afford a



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better protection in case the eastern fortlet were stormed. The inner rampart turns alruptly towards the cliff, so as to form a nearly straight face towards the E.; the platform in its front is widened; the middle rampart stops (at A in the plan), but the line is immediately resumed by a stronger rampart, which, beginning close in front of this sudden stop, bifurcates at once, enclosing a second platform (B), triangular in plan, its base resting on the precipice edge. In front of this the outer rampart is continued without change to the edge. Thus a front is presented towards the eastern fortlet of four ramparts and two platforms, or one more of each than on the landward front. Moreover, as only the outer rampart joins the other fortlet, the connection of the two is so slight that in the event of the casterly or weaker one falling into an enemy's hands, the defensibility of the more important work would be but little impaired. The chief dimensions of the ramparts at three points are given in the sections D E, F G, and II I.

The interior, roughly oval, measures about 200 by 100 feet on the O.M. Ranged against the inner rampart are eight more or less circular foundations or hut-circles, and there are four more standing free in the centre. They vary in size, the largest being 36 feet in diameter. Some stone is visible about them.

Breaks in the ramparts show stones mixed with earth, and in one place apparently rudely built stones, but excavation is necessary to show the structure of the ramparts, and whether there have been any trenches. The living rock crops out both in the interior and on the scarps.

The entrance, situated near the W. end, passes straight through the ramparts. It is much strengthened by the steep descent in front of the ramparts, between it and the cliff-edge, of 300 feet to Wester Dean Burn.

The Eistern division or fortlet has also three ramparts and a platform, but the latter, instead of being between the inner and middle ramparts, as in the western division, is between the middle and outer ones. It is also wider than that of the W. division, averaging 30 feet. The inner rampart is quite independent of the W. fortlet, the sole connection with which is by the middle one, which springs from the outer rampart of the W. fortlet (C on the plan) 80 feet from the cliff, and after running a straight course of about 60 feet, give oil the outer rampart, from which it is separated by the wide platform already mentioned.

The entrance, which is near the W. end, passes obliquely through the ramparts. There are no hut circles in the interior, which measures about 250 by 130 feet. The length over all of the two fortlets is about 720 feet, the breadth of the eastern one over all being 230 and of the other 190, as given on the O.M.

k. This fort stands somewhat apart from the general group, separated from it by the deep hollow of Western Dean. It stands on or near the top of Outlaw Hill, 500 feet above the sea, 1450 yards W.X.W. of the W. end of the loch, and 250 yards from the cliff edge. I had not time to go to it, but it is represented on the O.M. as a small work, with a single rampart of a somewhat semicircular form.

In concluding this account of these two groups, it may be noticed that they all have apparently a large proportion of stone in their rampatts, and that they are destitute of true trenches. Whether any of them were really of built stone can only be determined by excavation. "Hut circles," generally of a large size, occur in three of them. The entrances to these hut circles could, I believe, be made out easily enough, but there was so much to do in my two visits to this rather remote spot that I neglected to note their position, except in one or two instances. But for the valuable help rendered by Mr Il. Il. Craw, W. Foulden, and Mr Ferguson, Duns, my notice of these interesting groups would have been more defective than it is.

H.

NOTES ON SOME PREHISTORIC STRUCTURES IN GLENELG AND KINTAIL. BY LOCKHART BOGLE, F.S.A. Scot.

Glenelg is peculiarly rich in structural antiquities. I have taken the measurements, &c., of some of them, leaving out, however, the two wellknown Brochs, Dun Eletha and Dun Trotan, both in the Glenbeg, and now said to have been placed under the protection of the Ancient Monuments Act.

Dun Grügaig.—From the manse of Glenelg, I crossed the hill to the direct southward. When I came to be half way down the hillside, I noticed below me, on the gently sloping shoulder of a hill, a faint circlet



Fig. 1. On the hill between Glenelg and Glenbeg.

of stones (fig. 1). The place is about 500 feet above the level of the sea, and is slightly to the East of Correry farm, and the broch, Dun Trotan. The broch, however, cannot be actually seen from the stone circle. On examining the stones, I found there had been a circular enclosure of a wall 5 feet thick, surrounding an internal diameter of about 30 feet. Some of the stones were of large size. The size chosen would not recommend itself as a place suitable for defence, the sward being fairly level. From its fragmentary state

and grass-grown appearance, this building probably belongs to the class of prehistoric remains.

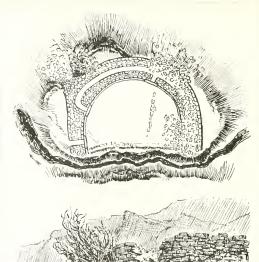
Continuing onward, I reached the head of Glenbeg, where the prospect widens into radii of remote glens, each with its torrent. Dun Grügaig is perched on a rock towering over the ravine of the river. Before ascending the height, however, my attention was attracted to another and very peculiar circular enclosure close to the river (fig. 2). This was large in design, and the walls of great thickness. Though very dilapidated, the walls could be easily traced through the masses of strong heather which attempted to conceal the masonry. A row of large elongated stones had been placed upright along the inner edge of the circular wall, and each stone must have been firmly fixed beneath, as not one could be stirred. The height of the highest above the ground would be about 3 feet. I cannot divine what could have been the object of this method of building. Excavation may solve the problem. Neither this nor the previously described circular building is to be found on the one-inch Ordnance Survey map.



Fig. 2. Circular foundation at the head of Glenbeg.

Most interesting is the broch-like structure of Dun Grügaig¹ (fig. 3), banging over the mountain river, and within sound of its everlasting nurmurs. On the E. side, where there is no great natural protection, a stupendous wall has been reared, fully 15 feet thick at the base, and much the highest part of the broch. The proximity of the river channel precludes the notion of its ever having been circular; the river being confined by the solid sides of rock must always have flowed as it now does. I give a sketch from the N₂, of part of the

¹ Gordon in 1726, and Sir Henry Dryden who planned this structure in 1871, call it Castle Chonil.





Figs. 3, 4. Plan and view of exterior wall of Dun Gruguig.

wall, with a strange twisted rowan tree, which looked as if it might be almost as ancient as the structure itself (fig. 4).

Dun Grügaig has the intermural galleries and other peculiarities of the broch. As to the "ground floor" chambers, I was unable to see the approaches to any, the interior being, of course, heaped up with debris; but the first gallery is laid open most of the way. The wall on the E. side contains a second gallery, which is in a tottering condition (fig. 5). I remember once as a boy having crept into this upper gallery for shelter from rain. Untold wealth could not tempt me to enter it now. It is a pity that this very fine ruin has not been propped up like its two neighbouring towers in the glen, and



Fig 5. Dun Grügzig-gallertes in wall.

put under the protection of the Board of Works. The wail on the E. attained the height of 14 feet, and, judging from the fallen material visible, must have been much higher. A narrow wall lined the edge of the cliff, probably to protect the immates from the arrows of the fee on the rock across the river. Traces of walls existed in the interior, which was 58½ feet in its longest interior diameter. All the lintels had not been carried away; three still remained,—one over a doorway, most difficult of access.

The Bùyhan Burblach (tig. 6).—I am not certain of the precise meaning of the word Baghan in this connection. Macleod and Dewar's Dictionary gives "Badhan; a little harbour, a creek, a road for ships," none of which will apply to this subject.

Joyce, in his Irish Names of Places, however, gives the following explanation in the chapter on Habitations and Fortresses:—" Beside

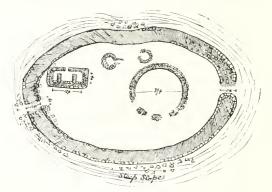


Fig. 6. The Baghan Burblach.

many of the old castles there was a hawn (Badhun) or large enclosure, surrounded by a strong fence or wall, which was often protected by towers; and into this enclosure the cattle were driven by night to protect them from wolves or robbers. O'Donovan also accounts for the name "bawn," which frequently appears in documents relating to Irish history since the plantation of Ulster, as being the Anglicised form of the Irish Badhan, an enclosure or fortress for cows. But in its Anglicised form in the 16th and 17th centuries it is often used for the courtyard of a castle or other fortified enclosure

Burblach is the name of the old farm on which the Baghan is situated.

Close to the stables of the Glenelg manse is a green hill, with a summit resembling the interior of a boat, slightly concave within, with rising prow and stern. A wall 11 feet thick forms the gunwale of the boat, with entrances E, and W. The remains of the wall are nowhere over a few feet in height. The exact width of the entrances cannot be determined without excavation, but it seems to be 6 feet. Inside are the remains of a hut of comparatively recent erection. Remarkable traces of a circle, 39 feet in diameter internally, are discovered near the centre of the enclosure. The walls of this circle are much grassgrown, and measure 5 feet in thickness.

Numerous traces of small circular huts, 5 or 6 feet across inside, are found in the Bàghan, which is of great size, the interior measuring 34 yards by 56 yards, No vestiges of intermural chambers are to be found.

The Baghan Galldair (fig. 7).—This is a smaller Baghan, being 22 yards by 24 yards, beside the hill road which leads to Ardintoul. The walls, 8 feet thick, are composed of smallish stones; and there are two entrances. Inside are traces of two circular huts.



Fig. 7. The Bàghan Galldair.

" Caisteal MhicLeod" or MacLeod's Castle.-Behind the village of Galldar, sheer cliffs rise to a great height, and seem to threaten the huts beneath with destruction. On the edge of one of these precipices is perched, like an eyrie, Macleod's Castle (fig. 8). Castle, however, it never was, in the mediaval sense of the word, and examination only tends to show that it belongs to that strange class of prehistoric buildings, constructed with dry stone, or, as is evidently the case here, with stone and earth. On the highest part of the summit a semicircular wall of irregular form is drawn across the level space (fig. 9), leaving a narrow and dangerous entrance to the E, where a slip might mean death. The wall is entirely grass-grown, but some of the stones are still in situ. On the W. side, where there is no great slope, the wall measures 14 feet in thickness; on the E, 9 feet only. There are traces of a hollow in the X. wall, such as might be caused by a small window, but this explanation is doubtful. There is also what appears to be the remains of a row of large stones in the centre of the W. wall. A similar appearance is noticed in the Burblach Eaghan E wall (tig. 6). A narrow wall forming the S. side of the fort seems to have run along the lip of the clif, as if for protection from the precipice. What seemed



Fig. 8. Site of Macleod's Castle.

to have been a strong outwork ran along on the N, to the cliff, where the outer entrance might have been. The natives had long been in the habit of pushing the stones over the rock and using them for the erection of their huts.

This "castle" is peculiar in having a well-known and firmly believed tradition relative to its occupation as a dwelling in historic times. I obtained this tradition from several of the oblest men of the place "It was last inhabited by 'Alistair Crotach' (the humpbacked), the first chief of Macleod who came to Glenelg. His child fell over the rock and was killed; so he left the castle, and went to another dwelling called Dalla-nahor, on the site of the present Free Kirk manse." Allistair Crotach obtained a charter of Glenelg from James V. in 1532. There is no ruin of any mediaval castle in Glenelg, and it seems to me quite probable that this ancient prehistoric fort might have been used by Macleod as a temporary residence or hunting-lodge when he visited

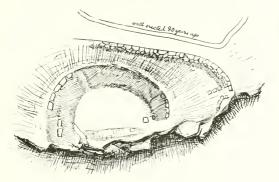


Fig. 9. Macleod's Castle—ground-plan.

that country and collected rents, &c. The smallness of the internal dimensions (18 feet by 34 feet), the difficult entrance, and the sense of the terrible storms which must sometimes sweep over the rock, make one fully realise what an eirie habitation "Macleod's Castle" must have been in old times.

KINTAIL.

Near the farm of Beolary is a high alluvial bank, through which the river has cut its way. On the top of the bank are faint traces of some circular building, the half of which seems to have fallen into the river through the wearing away of the bank. In the bed of the stream,



immediately below, can be seen large stones. From the few stones to be seen on the top, I found the outer measurement was 13 yards in diameter (fig. 10).

Kintail, Dunan Diarmaid (fig.

11).—In close proximity to the E.C. manse of Kintail is a little peninsula nunning out into Loch Duich. A rock usurps almost the entire space of the promontory, and on its top

Fig. 10. Circular structure near Beolary. is found an irregular circle of very thick wall, almost level with the ground and covered with grass. Some

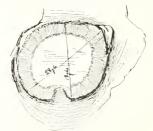


Fig. 11. Dun an Diarmaid.

of the outer stones seem to be still in situ. No doubt the two-storied

house, a short distance off, has been built of the stones. To the S. is a wide hollow in the wall, which formed the entrance. Little or none of the structure can be seen without excavation, but from the outline not being a pure circle, and from the absence of indications of wall chambers, I consider it to be no broch. Measurements from outside walls, 28 yards by 18 yards.

The word Diarmaid, associated with the Danan or little Dun, also occurs in Uaigh Diarmaid, or Diarmaid's grave (fig. 12), which lies in a field close by. Twenty large rough stones, of an average length of 2 feet each, extend to the length of 27 feet in a double parallel row, while the measurement across from the outer edge of the stones is 8 feet. Five of the stones have been removed or have sunk out of sight. The remaining fifteen are embedded on a level with the grass, which might argue for a great antiquity. The tradition of the natives affirms that Diarmaid







Fig. 13. Near the manse of Kintail.

and his wife are both buried here,—the Diarmaid being the hero celebrated in the Fingalian ballads.

Not far from the same manse, on the way to Dornie, is found beside the road a circular walled enclosure (fig. 13). It seems similar in some respects to the Genelg Baghans. The space inside contains a small circular building 11 feet outside diameter, and it measures in total diameter 15 yards. The walls are 5 feet thick; and there are two entrances, each seemingly 1 yard wide. It is singular that the structure is built on a slope beneath a high cliff, from which arrows could be fired into it.

TIT

NOTICE OF THE DISCOVERY OF A STONE CIST AND URNS AT THE CUNINGHAR, TILLICOULTRY; BY R. ROBERTSON, F.S.A. SCOT. WITH NOTES ON THE CONTENTS AND THE SCULPTURED COVERING STONE OF THE CIST; BY GEORGE F. BLACK, ASSISTANT KEEPER OF THE MISSULY AND ON THE MICHOSCOPICAL EXAMINATION OF THE FIBROUS OR HAIRY SUBSTANCE FOUND IN THE CIST; BY JOHN STRUTHERS, M.D. LL.D., EMERITS PROFESSOR OF ANARON IN THE UNIVESTITY OF AREADERS.

The Cuninghar ¹ is an elevated ridge of sand intermixed with gravel, about ½ a mile to the E of Tillicoultry. It lies X, and S, at right angles to the Ochils. The turnpike road has been cut through it at the southern end, and a few yards to the X, of the road there formerly stood a stone circle. This circle measured some 60 feet in diameter, and the standing stones are said to have been about 5½ feet of an average height. These stones have now entirely disappeared, having been removed, according to local tradition, some forty years ago to cover a built drain at Tillicoultry House. The site of the circle itself has also been reduced by a half, the place having been utilised for a good number of years as a sand-quarry. A small embankment which ran round the circle and the sites of some of the stones are still visible in the remaining half.

In April 1894, Mr Christie, teacher, Dollar, while visiting the place with a friend, observed the rim of a large einerary urn protruding above the soil near the edge of the circle, and alongside of where one of the standing stones seems to have been. In attempting to remove this urn it unfortunately went to pieces. The pieces were all carefully collected, and the urn (which was filled with bones) is now exhibited in its restored condition. It is of the usual cinerary form, with a heavy overhanging

¹ Cunningar, Cunninghar, Cunningaire,—an obsolete word signifying a warren for rabbits.—Junieson.

brim, and ornamented on the brim only, the ornamentation being composed of oblique lines of circular impressions made by the end of a round stick searcely so thick as a pencil. The urn has been presented to the Museum by Mr Christie.

On becoming acquainted with this find I went to inspect the place, and on examining the site of the circle my attention was attracted by the end of a large block of stone, protruding from the face of the sandpit. It was about 4 feet below the surface, and exactly where the centre of the circle must have been. As I knew that stones of this size were not found in the sand-pit, I proceeded to investigate it more closely. I then saw that it formed the cover of a cist, and on some of the sand being removed the end slab was also visible. Considering the discovery one of considerable importance, I at once communicated with the proprietor-R. G. Wardlaw Ramsay, Esq.-who gave instructions that it should be left untouched until I wrote to the Society and endeayoured to get some one of experience to come and superintend the examination of the find. Shortly afterwards, from the position of the cist in the face of the sand-quarry, and the continual crumbling away of the sand, the covering block fell, bringing down with it one of the end and one of the side slabs of the cist.

Fortunately I was on the spot soon after, and found the remaining portion of the cist and contents untouched. Along with the Rev. R. Paul, F.S.A. Scot., I made a careful examination of what remained,

The cist was of the usual kind, formed of four rough slabs of freestone, the two longer sides of which lay N.E. by S.W. It measured 4 feet 9 inches in length, 21 feet in width, and 2 feet in depth. The cover was a huge block of grey granite, nearly 6 feet long, 41 feet at the broadest part, and of an average thickness over all of 2 feet.

It is calculated to weigh from 3\frac{1}{2} to 4 tons. The joints of the cist were carefully packed with elay; and so thoroughly had this been done, no sand or soil of any kind had found its way inside. The floor was composed of a layer of pure sand, a few inches deep, from which all gravel had been thoroughly sifted out,

At the S.W. corner a very fine example of a "food-vessel" urn (fig. 1) was found, in a perfect state of preservation. It stood mouth upwards, and was perfectly empty. It is described in the subsequent part of this communication by Mr Geo. F. Black.

A few pieces of the long bones of the skeleton were all that remained, but there were sufficient indications that the body had lain in a contracted position, with the back towards the N. side of the cist. The place where the head had lain was also clearly marked, and several teeth were found, the crowns of which are in an excellent state of preservation, and show that the burial was that of an adult. No orna-



Fig. 1. Urn of food-vessel type, from the Cist, Tillicoultry.

ments, weapons, or implements of any kind were found, although the contents of the cist were carefully sifted.

At the spot where the head had rested was a quantity of a fibrous or hairy substance, of a dark-red colour; and underneath this was a layer of white pebbles, some of them deeply stained with the same red hue. The former has all the appearance of being the hair of some animal, and no doubt a microscopical examination will determine its character. If found to be animal, if may be the remains of a skin on which the head rested; it is, however, remarkable that it should have resisted decay for such a lengthy period.

The covering-stone (fig. 2), as I stated, had fallen to the bottom of

the sand-quarry, and lay nearly covered by sand and gravel brought down with it in its descent. On clearing this away a remarkable feature was brought to light. The block was found to be elaborately ornamented on its sides and upper surface with rings, spirals, and lines. The labour of cutting these in the hard granite with the primitive tools of the period must have been very great.

Several successful photographs of the stone and its carvings were



Fig. 2. Covering-Stone of Cist at Tillicoultry, sculptured with Cups and Circles.

taken by Provost Westwood, Pollar. These are now shown, and give a good idea of the size of this remarkable stone and its ornamentation, I may mention that granite is not a native stone of the district, but many blocks (probably ice-carried) are found scattered over the southern slope of the Ochils. This stone has now been removed to the vicinity of Tillicoultry House for safety, and can be seen there by any one interested in it.

I think it can be safely concluded that, judging from the character of VOL. XXIX.

the cist, its large and finely decorated cover, and its position in the centre of a circle of standing stones, this interment must have been that of a person of importance. The large cinerary urn is probably one of several extending round the circumference of the circle.

Many other urns have been found in former years in the Cuninghar and immediate neighbourhood. One found in a cist, while forming the western approach to Harvieston Castle, is now in the museum of Pollar Institution. It is a very fine example, and it is said it contained a flint implement when found. [See the description of this urn on p. 107 autr.]

Professor Strutmers said that he had examined the fibrous substance under the microscope. He had compared it with human hair, and that of the horse and ox, and found it was neither of these. Such hair kept its characters well, in illustration of which he exhibited a slide containing hair he had found in a short stone cist at Parkhill, Aberdeenshire, in 1867, and a lock of hair found in 1858 in the cave in the island of Eigg, in which, towards the end of the 16th century, 200 persons of the clan M'Donald were suffocated by the clan M'Leod. In both of these the characters of human hair were evident. The fibrous material from the Tillicoultry cist is of a dull golden or brown-red colour, in irregular tufts not longer than \$\frac{3}{4}\$ of an inch, soft and easily broken, and composed of fine fibres about a sixth the thickness of the hair of man, the horse, or the ox. Interlacing with part of the red tufts are whitish fibres, like fine thread, from twice to thrice the thickness of the hairs above mentioned, branching abruptly at intervals, and apparently of vegetable nature. The fibres of the red substance show the characters not of wool proper, like that of the sheep, but of the under hair of various quadrupeds, sometimes termed their "wool," The strongly serrated edges (or surface) which wool proper shows, and to which its felting property is said to be due, are not here present. The cross dark and light markings are so close as to resemble the markings of striped museular fibre, and the serrations caused by the distal margin of the covering-scales are faint. It might be the "wool" of the dog or fox, which would suit the colour, or, for structure at least, that of

the rabbit. It would require a great deal of comparative microscopic observation to determine the particular animal. It was to be noted that the tufting does not seem natural, but as if the "wool" had been crushed. The tufts and individual fibres easily break in the fingers, and there is a dobris of broken-down fibres, approaching powder.

Mr George F. Black said:—As Mr Robertson has very fully described the circumstances relative to the finding of the cist at Tilicoultry, it only remains for me to draw attention to its contents and to the coveringstone.

The urn is of the food-vessel type, and measures $4\frac{\alpha}{4}$ inches in height by $4\frac{\alpha}{2}$ inches across the mouth. The whole of the outer surface of this urn is ornamented with bands of zigzag cord-marks, which have been impressed in the clay while in a soft state. In addition there are eight projecting perforated knobs of cars, placed at equal distances round the shoulder. Two of these unfortunately are broken off.

The pierced ears, which are a rare feature in these urns, are believed to be for the purpose of allowing a thong or cord to be passed through to admit of the vessel being suspended; but in the case of the urn before us, the holes, I think, are too small to admit of such a use, Canon Greenwell has suggested that urns of this type with pierced ears are of earlier date than those with the ears unpierced; and he adds, that when they ceased to be suspended, the ears were still retained, in accordance with the common principle of survival, but were not pierced, and so became mere ornamental appendages,

The matted substance found in the cist, at the spot where the head rested, appears to be of two materials—the lighter coloured, composed of the matting of roots; and the darker coloured, apparently a kind of felted or unwoven cloth. A discovery of a similar material was made in a cist containing urns and a spoon of ox-horn at Broomend, Inverury, Aberdeenshire, and is here shown for comparison. There are also on the table two small pieces of materials of similar texture, one portion of which enveloped the long bones of a skeleton in a cist at Barnhill, near Broughty-Ferry, while the other was found in a cist at Parkhill, Aberdeenshire. The association of pebbles of quartz with burials of the Bronze Age is not common in Scotland, but a few instances have been brought together and discussed by Sir Arthur Mitchell in a paper printed in the 18th volume of the Proceedings.

Probably in one or two of the instances there quoted the pebbles may have formed merely a flooring for the cist, but in most of the cases they appear to have possessed a symbolic meaning.

The covering-stone of the cist, as will be seen from the photographs, (see the illustration on p. 193) bears on the face a series of concentric circles, and spirals springing from one of the groups of circles. Four grooves also unite the same set of circles with the left-hand edge of the stone. On the edge shown in the photograph there is another group, consisting of two concentric circles. The unevenness of the surface of the stone appears to have been of no moment to the sculptor of the circles, as the incisions follow the surface into its sinusosities and depressions.

As covering-stones of cists are very rarely sculptured in any way, I have thought it worth while to bring together all the recorded Scottish examples of circle-marked slabs, for comparison with that found at Tillicoultry.

In 1871 a cist was discovered in the course of clearing land on the farm of Westeryird Houses, four miles north from the village of Carnwath, Lanarkshire. On examination the cist was found to contain an urn of the drinking-cup type, ornamented, and about 9 inches high. At the same time the covering-stone, on being turned over, was seen to be sculptured with three groups of concentric circles and two curious triangular markings. Both the urn and the cist-cover are now in the Museum, and the latter has been figured in the Proceedings.¹

At Collsfield, Ayrshire, in 1785, a large slab, bearing a series of concentric circles, was found acting as the covering-stone of a cist containing a portion of an ornamented urn of food-vessel type. In this instance it is not recorded what position the sculptured face held in relation to the cist, whether directed outwards or inwards.²

Another circle-sculptured slab was found about the year 1864 cover-

Proceed, Soc. Ant. Scot., vol. x. p. 62.

² Wilson, Prchistoric Annals, vol. i. p. 480,

ing a cist at Carlowrie, near Elinburgh. The cist here was composed of rude unmarked slabs of freestone, and contained nothing beyond a stratum of unctions, black, fatty earth, with traces of decomposed bones. The cover bore three series at least of concentric circles, and each series was five in number. In this case the sculptured face was directed to the inside of the cist.³

When making a new road through Craigie Wood, about a mile distant from the place last mentioned, the end of a cist was left exposed at the top of the embankment. The cist consisted of two lateral stones and apparently two end stones, and was covered with a slab about 3 feet broad and at present only 4 feet long. The interior or under face of the slab is carced with several groups of concentric circles, and formerly one or more sets existed on portions of the slab that were broken off and lost. An urn is supposed to have accompanied this interment, as one of the workmen stated that on opening the cist they found within it an object which he irreverently described as "an auld can."²

A fifth slab, now in the Museum, although not a covering-stone, may also be mentioned here, as it formed part of a cist. I refer to the slab from Caruban or White Cairn, a village on the line of the Crinan Canal, in Argyllshire. It bears on one face a series of five concentric lines of a lozeinge form, and when found served as a panel in the cist, and had the carved face directed to the interior of the grave.³

From the evidence here adduced, I think we may safely conclude that at least some of the mysterious ring-marked stones are of Brouze Age data.

Proceed, Soc. Ant. Scot., vol. vi., App. pp. 28, 29.

² Proc. Soc. Ant. Scot., vol. vi., App. p. 28.
³ Ibid., pp. 29, 30.

1V.

NOTE ON TWO LATE NOTICES (1560 AND 1563) RELATING TO THE CULTUS OF ST NINIAN IN ENGLAND. BY THE RIGHT REVEREND JOHN DOWDEN, D.D., F.S.A. SCOT., BISHOP OF EDINETREE.

In the year 1560 was published a Commentary on the Prophet Haggai by James Pilkington, who in the following year (March 2) was consecrated 18-shop of Durham, in succession to 18-shop Cuthbert Tunstall, deprived. This work was republished in 1562, together with an Exposition of the Prophet Obadiah, and has again been printed (1842) in the Parker Society's elition of the Works of James Pilkington, B.D. (under the editorship of Professor Scholefield, of Cambridge), to which the references are here made. Pilkington was a vigorous controversialist on the side of the Reformation; and in his Exposition of the Prophet Haggai, he attempts to reply to the charge of "diversity" among "the gospellers" by a to quoque charge against his opponents. "Some pray to one saint as more in Golfs favour, some to other. Some use Trinity Knots, and other St Katherine's. Some have St Tronion's Fast, other our Lady's, and many the Golden Fridays" (p. 80).

A later work by Bishop Pilkington, published in 1563, and entitled The burnging of Paules Church in London, in the yeare of our Lord 1561, and the iiii. day of June by Loydhynge, &c., contains a passage following the same line of comment:—"Fastings were more than I know; some used St Rinian's, some our Lady's, some the Golden Fridays, some every Wednesday, some half Lent, some whole," &c. (p. 551).

It will be observed that the "St Tronion" of the earlier work is
"St Rinian" in the later. The various forms of the name of St Rinian,
as exhibited by Bishop A. P. Forbes in his edition of the Life by
Alired (Historians of Scotland, vol. v. pp. xxv, xxvi, 304), will probably
leave no doubt that it is St Ninian who is referred to under the names
used by Pilkington. That Pilkington was referring to English devotional
practices: the context leaves little doubt.

Aggens and Abdias Prophetes, the one corrected, the other newly added, and both at large declared. . . . Imprinted at London by William Seres, 1562.

Pilkington does not appear to have had any connection with Durham before his elevation to the See, and the date of the publication of the earlier of the two works referred to as preceding that event supplies no suggestion for associating the practice of "St Rinian's fast" with the N.E. of England. But an inquiry into the writer's earlier history may perhaps supply the clue. He was himself born in Lancashire, and was of an old Lancashire family; and in 1550 he had been appointed to the vicarage of Kendal, in Westmoreland. Possibly it was the observance of a fast of St Rinian by some in that neighbourhood, or in Lancashire, that supplied him with the basis upon which he founded his remark. And that the veneration of St Ninian was known in that quarter in the 16th century we have proof from the Chetham Society's Laurashire and Cheshire Wills. The extract is given by Forbes (Historians of Scotland, v. p. 304):- "Also I will that one be hyryt to go for me . . . Seynt Truyons in Scotlande, and offer [for] me a bende placke whyche ys in my purs." This will is dated in the year 1540, the notice in Pilkington being twenty years later.

The easy access by sea from the Lancashire and north-western coast of England to the shrine at Whithorn would not unnaturally have stimulated the cultus of St Ninian in those parts.

The mention of "our Lady's fast" in connection with "St Ninian's fast" would naturally lead one to conjecture that the latter was, like the former, a special voluntary, or, as it is technically called, retire fast, undertaken as a benance, or as an act of special devotion to the saint.

There is a passage cited by the Bollandists (Acta Sanctorum, Septemb., tom. v. p. 326) from a manuscript work of a certain Patrick Ninian Wemyss, De inclubitatis Sodiae sanctis, which may throw some light on the character of this fast. This writer, I am enabled to state (on the authority of the Reverend Father Smedt, S.J., President of the Society of Bollandists, who has with much courtesy replied to my inquiries), is without doubt to be identified with "Patrick Weems," a Scotch Father of the Society of Jesus, employed in the Province of Bohemia in the early part of the last century.

¹ See Receits, English Procince of the Society of Jesus, by Henry Foley, S.J. (vol., part second, p. 824, London, 1883). "Weems, Patrick, Father (Scotch), born

Wemyss declares that the solemn fast of St Ninian was well known, and a matter of common discourse (in ore omnium versatur); and then he goes on to state that the saint was accustomed to abstain from all food and drink from Thursday in Holy Week till he had celebrated the Easter mass on the following Sunday. It is natural to suppose that "St Ninian's fast," observed by devotees, was a similarly rigorous fast during Good Friday and Easter eve, and Easter morning till mass had been said.

It may be observed that in Ailred's Vita S. Niniani no mention is made of any special fast observed by the saint. The only notice I have observed in this work that has any possible relation to the subject before us is the modest statement that he was in cibo sobrius (cap. i.). The office of the saint in the Aberdeen Bereiary is similarly silent. But to whatever source the story of St Ninian's own special fast in Holy Week may be traced, the character of the fast observed by those who sought to pay to St Ninian special devotion is sufficiently described in the old Scottish poem on St Ninian, which forms part of the MS. Gg ii. 6 in the Cambridge University Library, and the text of which was published for the first time in 1882 by Horstmann under the title Barbary's des Schottischen Nationaldichters Legendensammung (Heilbrunn). There we learn that the fast, at least in the time of the writer of the poem (that is, the time of King David II.), consisted of a fast from noon on a Friday till after mass on the following Sunday, and that

June 29, 1671; entered the Society Jan. 15, 1698. In 1709 he was employed in the province of Bohenia (Oliver, from Stonyhorzé Scotch MSS.). He is mentioned in a Scotch catalogue for 1729 as being then at Prague."

¹ Patricius Xinianus Wemyss, în manuscriptis de indubitatis Scotice Sanctis, suas de Patricius Xinianu observationes ita claudit; Solemue sancti Presults jejunium in ore omnium versatur: solebat enim Vir sanctissiums quotamuis a Feria quintu Alajoris Hebdomadae alo omni cibo potuque abstinere, dum sacrosanctae die Paschalis Dominicae Resurrectionis mysteria perageret, miraculorum gloria cum S. Dutacho in regno Scotiae longe celeberrimus.

Of Sanet Niniane zet 1 zu tell
A ferly in my tyme befel. line 815.

þis wes done but lessinge

Quhene Sir Davi Bruys ves kinge. line 941.

- Horstmann (Zweiter Band, pp. 131-133).

this fast was kept three times in each quarter of the year,—twice, as it would seem, in successive weeks, and once at any time within the quarter, as chosen by the devotee.

It will be observed that, in the 14th century at least, we do not find, so far as evidence is supplied by this poem, that Good Friday and Easter eve were specially selected among the Fridays and Saturdays that were "fasted."

I have only to add that the initial "T" in the form "Tronion," used in one of the passages of Pilkington, may perhaps be accounted for by the vocal adhesion or liaison of the last consonant of the word "saint" with the initial "R". Examples of forms of the word with the "T" have been cited by Bishop Forbes. But Professor Scholefield, the editor of Pilkington, was evidently unacquainted with them, and supposes "Tronion" to be merely a clerical or compositor's error (Pilkington's Il Vorks, p. 551, note 2), nor does he offer any explanation that would help to identify the saint referred to.

After referring to the great crowds that visited St Ninian's shrine at Whithorn the writer proceeds—

"And par-of subl nane ferly
For be merwalis done Ithandly [i.e., constantly]
bat he kithis one sare and seke,
bat denotely wil hyme seke,
Or fastis with deuceione
His fastinge, bat not is commone,
but is fryday fra be norne
Til sonday at be mes be done;
& how mene fastist, it gil pe vil spere;
Thryse ilke rath [i.e., quarter] of be zere;
Twise to-gibdire, be third he skil
In bat quartar quhene ph wil."

-- Horstmann (Zw. B., p. 130, lines 763-774).

V.

NOTES ON A SUPPOSED MITHRAIC CAVERN AT WOULDHAM, IN KENT. By JAMES LANG, F.S.A. Scot.

Of the worship of Mithras, once so general throughout the Roman world, scarcely any traces have been left in Britain. With the exception of the well-known discovery on the line of Hadrian's Wall in 1822, no authenticated remains of any temple dedicated to the Sun-god (so far as I know) are on record. And it will be borne in mind that at Borcovicus the find consisted only of altars, every trace of the building in which those altars had had a place having entirely disappeared. A discovery, therefore, of any Mithraic place of worship in these islands cannot but be hailed as one of great importance in the history of Archæology; and it is in view of this that I have ventured to present these few notes on a recently exposed cavern for your consideration. And here I may say that it was our hope and prayer that something should be done towards preserving for all time this most interesting, and I believe unique, specimen of ancient religious architecture. That the Society of Antiquaries of Scotland and the sister Society in London should combine to bring about this end was my fervent hope; or, if not to preserve the building in situ, that (as the discoverer of it suggested) means might be taken to transport it bodily to some safe asylum, Urgent indeed is the case if anything at all is to be done, for the severity of the weather and the friable nature of the soil of Kent will soon cause to disappear every trace of this last monument of a forgotten age.

Early in the spring of last year (1894) the labourers employed in clearing away a portion of the ground required for the extension of the coment works of Mr Peters at Wouldham came upon traces of masoury; but little notice was taken of the occurrence at the time, as the district is one in which Roman remains, as well as Saxon and Danish, are by no means uncommon. Beyond a short paragraph in a local newspaper, no publicity seems to have been given to the occurrence.

It was through my connection with the "Leland Club," a wandering

body of Antiquarians and Archæologists, that I first heard of the find towards the end of August; and I was then asked by Mr George R. Wright, F.S.A., the founder of the club in question (and a distant kinsman of the late Mr Thos. Wright, M.A., the well-known historian and antiquary), to accompany him on an excursion to Wouldham, in Kent, to visit the relie. Unfartunately I was unable to join him at the time, but since then I have visited the spot on my own account, and I here give the result of my other actions.



Fig. 1. View of releases of supposed Wing of Caronart View line in, Kant.

The remains (fig. 1), as I saw them early in December last, consist only of three walls and a portion of the fourth, the whole originally forming a cavern excavated in the face of the bank, or small sand-cliff, overhanging the river Medway, a short distance beyond the village of Wouldham!—Being a cavern, the walls have, of course, only one face

¹ The spot is on the right bank of the Medway, where the river takes a sharp bend, two or three miles above the city of Rochester, and is actually in the parish of Burham.

—the inner one—and these walls are of chalk, hewn in blocks of fairly uniform size, and backed with rubble. The surrounding sand has by this time been entirely cleared away except at the inner end of the building; and thus exposed to the action of the weather, the total disappearance of the whole structure cannot but be a question of a very few weeks—if, indeed, it be not already gone.

The length of the building is, inside, 40 feet 9 inches, and the width 19 feet. The height to the spring of the arch is about 3 feet 6 inches; and apparently the total height of the arch when complete was 12 feet. The southern wall (to the right on entering) is almost plain, but at the centre of the northern wall there is a very distinct shaft upwards, probably to admit light, and traces of what may have been a groined arch. This apparent arch is exactly central to the length of the building and measures 19 feet across—the same as the total width of the cavern. The shaft is beautifully executed, and is one of the best preserved parts of the building. It measures 10 feet 2 inches wide at base, and slants upwards at a slope of about 3. Whether there was a corresponding shaft and arch starting from the opposite wall is matter of conjecture. Certainly the traces of such are scant. At the inner end of the cavern are three niches, of equal dimensions, -each about 4 feet high, having a depth of 2 feet and a width of 2 feet 9 inches,the total space occupied by the three being 10 feet 10 inches. These, it is conjectured, were for the statues of the god and his two assessors; but no traces of altars have come to light.

In the outer wall, when first discovered, there was a doorway, somewhat to the right (i.e., to the south) of the central line; and, so far as I could learn from an old man present (who has been employed there continuously, and who saw the cavern opened up), this doorway must have been of such a height as to necessitate one stooping slightly when entering. There is but one course of masonry, about 8 inches thick, and it is built with great care and no little skill.

A notable feature is the interior decoration of the cavern. On each stone throughout the building are grooves or flutings distinctly and artistically cut, the whole forming a rude ornamentation, very striking in its effect. The lines vary their direction on different stones, being perpendicular, diagonal, or horizontal according to the fancy of the artist. The most frequent is undoubtedly the "herring-bone" pattern so well known to the Romans, formed by the meeting horizontally of diagonal lines drawn in opposite directions from the top and bottom edges of the stone. Another form is that of the "chevron," where parallel lines, being drawn from the right and left edges, meet vertically; and this occurs most frequently where the stone is built into the wall endways (technically called a "header"). In other places the lines are vertical or horizontal, by way of variety, or diagonal in one direction only.\(^1\) Unfortunately these markings are rapidly disappearing, owing to the weathering of the chalk, which cannot long withstand the rains and frosts of our climate, and already they have disappeared over the greater part of the structure.

I am indebted for my measurements and photographs to the kindness of Major G. K. Scott-Monerieff, of the Royal Engineers, who very kindly assented to my appeal, and, at considerable personal inconvenience, himself visited the structure and took them with his own hand. My own measurements had been done very hurriedly, and I did not deem them accurate enough to present to the Society without verification.

When the cavern was first seen by Mr Wright there was still an arched roof upon it, but this fell in during the excavation, on removing the debris which filled it up. It is now, therefore, open to the heavens, and presents the appearance shown in the photographs which I exhibit. The bank and surrounding soil is all of sand.

Orientation.—The cavern is, as I have said, situated on the left bank of the Medway, some sixty paces or so from the water's edge, and facing about 5 S. of W.—in direct prolongation of a stretch of the Medway. This stretch would be illumined by the reflection of the sun's rays at sunset for a great part of the year, and certainly at the winter solstice; and the reflection would shine straight into the cavern.

One coin only has as yet been found in this cavern,—a small brass, beautifully preserved, of the time of Constantine or soon after. It bears the legend "CONSTANTINOPOLIS" very freshly impressed on it,

The photographs will show this better than any description I can give.

with a female head in a helmet, laureated, and carrying a sceptre. On the reverse is the figure of Victory standing on the prow of a ship, a sceptre in her right hand, and her left resting on a shield. In the exergne is the contraction "cconst." How far this coin can be taken as establishing the date of the cavern I leave others to judge. It seems to belong to a series of whose exact dates there is some uncertainty, but evidently struck in honour of Constantinople, the then newly adopted capital of the empire. See Eckhel, vol. viii. p. 96 (Vinclobure, 1798).

Monday, 11th March 1895.

THE HOX. HEW H. DALRYMPLE in the Chair.

A Ballot having been taken, the following Gentlemen were duly elected Fellows:—

Hamilton More Nisbet, University Hall, Ramsay Lodge. Morton Gray Stuart, 2 Belford Park.

The Secretary announced the election by the Council of the following Ladies as Lady Associates of the Society:—

Miss H. J. M. Russell of Ashiestiel.
Miss Any Frances Vule of Tarradale.

The following Donations to the Museum and Library were laid on the table, and thanks voted to the Donors:—

(1) By the Right Hon. The Earl of Southesk, K.T., F.S.A. Scot,

Highland Brass Brooch, 24 inches diameter, with tongue of iron, and one face chased with linear ornamentation, nearly obliterated, from Inverness. (2) By Dr R. de Brus Trotter, Perth.

Highland Brass Brooch, 2½ inches diameter, with tongue of brass, and one face chased with linear ornamentation in patterns, from Perthshire.

(3) By the Hon. John Abercromby, F.S.A. Scot.

Swedish Calendar-Staff, 32 inches in length. [See the subsequent Communication by Mr Morland Simpson.]

(4) By R. Carfrae, F.S.A. Scot.

Stone Flat-Iron Rest, with initials G. P., and date 1766.

Facsimile of Burns' "Jolly Beggars," from the original manuscript. 4to, Glasgow, 1838.

(5) By the Stirling Society.

Transactions of the Stirling Natural History and Archæological Society, 1893-94, 12mo, Stirling, 1894.

(6) By WM. CRAMOND, LL.D., F.S.A. Scot., the Author.

The Annals of Fordoun, from the earliest times. 12mo, Montrosc, 1894.

On Strafinla Top. A Guide to Auchinblae and the Fordoun District. 12mo, Dundee, 1894.

(7) By J. W. Brook, the Author.

Archæological Notes and Observations, 1891–92. 8vo, pp. 20, pl. iv.

Early Man in Marlborough. 8vo, pp. 12.

(8) By Miss Russell, Ashiestiel, the Author.

The Vitrified Forts of Scotland, and the Theories as to their History, 8yo. Reprint from the *Journal* of the British Archæological Association.

(9) By Thomas May, the Author.

Ancient Stone Implements, Reprint from the *Proceedings* of the Warrington Literary and Philosophical Society.

(10) By the Secretary of State for India.

List of Architectural and Archæological Remains in Coorg, and South Indian Buddhist Antiquities. Vol. XV. of Archæological Survey of India. 4to, 1894.

(11) By the Master of the Rolls.

Calendar of Patent Rolls, Edward II., 1307-13; Calendar of State Papers, Domestic Series, 1668-69; Catalogue of Ancient Deeds in the Public Record Office, Vol. II.: Letters and Papers, Henry VIII. Vol. XIV. pt. 1, 1539; Calendar of Close Rolls, Edward II., 1316-23.

(12) By the New Spalding Club.

Hectoris Boetii Murthlacensium et Aberdonensium Episcoporum Vitæ. Edited and translated by James Moir, M.A., LL.D. 4to, Aberdeen, 1894.

The Records of Aboyne, 1230-1681. Edited by Charles, eleventh Marquis of Huntly, Earl of Aboyne. 4to, Aberdeen, 1894.

There were also Exhibited :—

(1) By D. P. Menzies, F.S.A. Scot.

The so-called "Bannockburn" Bagpipes of Menzies. [See the subsequent Communication by Mr Menzies.]

(2) By Hardy B. M'Call, F.S.A. Scot.

Bronze Knife-Dagger, with that tang and rivet-hole in the butt-end of the tang, found on West Cairns, Mid-Calder. It is thus described by Mr MrCall in his recently issued History and Antiquities of the Parish of Mid-Calder:—"Fig. 1 represents a small leaf-shaped blade recently found in the lands of West Cairns. It measures 4 inches in length, and 3 of an inch across the widest part of the cusp, and is still sharp on either edge and at the point. The tang is perforated to admit of a rivet uniting it to a short wooden handle. The metal of which it

is made is found to consist of seven parts of copper and two of tin." This form of knife-dagger, with the flattened blade having no midrib, and the flat tang perforated for a single rivet, is exceedingly rare in Scotland. In the last volume of the Proceedings (p. 219) the Hon. John Abereromby has described a fine specimen of the variety, with a midrib down the centre of the blade and a flat tang with a single rivet in the "end, which was found at Crawford Priory, in Fife. He also refers to the similar blade found at Whitehaugh Moss, in Ayrshire, which was the only Scottish example previously known. But the blade described by Mr M'Call differs from these both in the form and flatness of the blade, while the absence of a midrib, and the way in which the edges are drawn down, give it quite a distinctive character. It closely resembles the blade from a barrow at Ronndway, in Wiltshire, figured by Sir John Evans in his Bronze Implements of Great Britain (p. 223), which was found with a contracted unburnt burial, on the left forearm of which was a stone bracer or arm-guard against the impact of the bowstring, and near the head a barbed arrow-point of tlint. It appears, therefore, more likely that the blades of this peculiar form belong rather to the earlier than to the later portion of the Bronze Age. [The Society is indebted to Mr M Call Fig. 1, Tanged Bronze for the loan of the wood-block of the West Cairns



Blade, from West Cairns, Mid-Calder,

(3) By the Queen's and Lord Treasurer's Remembrancer.

Portion of a massive Silver Chain of Double Links, with penannular VOL XXIX.

terminal link, found on Whitlaw farm, near Lauder. This fragment of a massive silver chain of double links consists of the penannular terminal link, six entire links and two broken links. The penannular link is of the same form and character as in the other examples preserved in the Museum from Whitecleuch, Lanarkshire, and Parkhill, Aberdeenshire, except that it has no symbols incised upon it, being perfectly plain. It measures 13 inches diameter in the central flattened portion, which is 5 inch in breadth, the whole breadth of the ring being 3 inch, the bevelled rims projecting on each side about 1 inch. The penannular opening is 1 of an inch in width, and the thickness of the body of the ring in the centre is a inch. The double rings are made of cylindrical rods of silver fully 1 inch in diameter, bent into a circle 13 inch in diameter, the ends brought closely together but not joined. The origin and purpose of these massive silver chains are unknown. They are peculiar to Scotland, no example having been ever found outside this country. There are four examples in the National Museum, from the counties of Inverness, Aberdeen, Haddington, and Lanarkshire. Other three are now known, viz., one from Hordwell, another from Greenlaw, and the one above described from Whitlaw, near Lauder, all in Berwickshire. [See the previous paper on "Massive silver chains of double links found in Scotland," by the late Dr John Alexander Smith, in the Proceedings, vol. xv. p. 64.]

The following Communications were read:—

ĭ.

NOTICE OF A CAVE RECENTLY DISCOVERED AT OBAN, CONTAINING HUMAN REMAINS, AND A REFUSE-HEAP OF SHELLS AND BONES OF ANIMALS, AND STONE AND BONE IMPLEMENTS. BY JOSEPH ANDERSON, LL.D., ASSISTANT SUCCETARY AND KEEPER OF THE MUSEUM.

This cave is situated at the bend of the cliff, where a lateral valley comes down on the old beach terrace, near St Columba's Church, Oban. It was discovered in the end of December last, by quarrymen removing rock from the face of the cliff, for building purposes on a feu belonging to Mr A. MacArthur, solicitor, and agent for the Commercial Bank. I heard of the discovery from Mr J. Walter Higgin, who had formerly corresponded with me on the discovery in 1890 of a cave in the same cliff immediately behind the Oban Distillery. Meanwhile, the cave on Mr MacArthur's feu had been visited, first by the Rev. Alexander Stewart, LLD., F.S.A. Scot., Nether Lochaber, and subsequently by Mr W. Anderson Smith of the Fishery Board, and Dr MacNaughton, F.S.A. Scot., Taynuilt, who agreed with Mr Higgin that the discovery was one likely to prove of scientific importance. This having been communicated to me by Mr Higgin, and to Dr Christison, the Secretary of the Society, by Dr MacNaughton, it was decided by the Council that Society supplying the funds, and the objects found being appropriated to the National Museum. The Society's action was cordially met by the local parties, viz., Mr J. W. Higgin, Mr John Munro, Dr E. Bailey, and Mr MacArthur, who cheerfully gave their services for this purpose. I went to Ohan twice during the course of the excavations, being accompanied the second time by Mr Cunningham, the Treasurer of the Society, who made a plan of the cave, and determined its height above the Ordnance datum line. In addition to my own observations from Mr Higgin, from December 31st to February 15th, during which time the cave was being excavated, and I have also availed myself of the information contained in Mr John Munro's working-diary, 19th to 24th January, and plan and sections of the cave made by his son with reference to its condition and the position of the excavations at that date.

The circumstances of the discovery of the cave were as follows:—
The quarrymen, after they had penetrated about 8 to 10 feet into
the rock from its exposed western face, broke in upon that side of the
cave near its southern extremity, and proceeded to blast and remove
the whole of the superincumbent rock from the top of the cliff down



Fig. 1. View of the Cave, looking south-(from a photograph).

to the level of the cave, thus removing its roof, and laying open its east and west sides and its southern end. The east side then formed part of the quarry-back in the face of the chiff, while the west side had been removed down to the level of 3 or 4 feet below that of the black earth floor of the interior. Part of the curve of the roof was still visible on the eastern side, and also on the southern end (see the view in fig. 1), but no measurement could be obtained of the former height of the roof anywhere above the black earth floor, on which the whole mass of rock forming the roof had subsided after blasting. Towards the north end there was a great talus of earth and stones sloping to the base of the cliff. Subsequent investigation showed that the mouth of the cave had originally opened in this direction. In the wall of rock on the east side, and towards the back of the cave, there were several recesses, one of which was tilled with black earth, and appeared to slant upwards and backwards into the rock as far as it could be probed from below. It was ultimately found to form a shaft-like communication with the upper surface on the top of the cliff, where a slight hollow was visible, which had become a receptacle for the soakage from the surrounding surface after rains, the shaft below it forming a channel by which it percolated into the cave. That the shaft was once an open passage from the surface down into the cave was evident from its being now wholly filled with black vegetable mould derived from the surface soil; and it is equally evident that by this channel, before it was completely blocked from above, the greater part of the black earth, which formed the uppermost layer of the deposits in the interior of the cave, had found an entrance.

The area of the floor of the cave, as shown in the accompanying plan (fig. 2), was, roughly speaking, nearly 25 feet in length, and from 16 to 20 feet in breadth. Its mouth, which opened to the northward, was completely blocked by the talus of earth and stones before referred to; and when this was approached from the inner side, in the course of the exeavation of the interior deposits, it became evident that there had been a great fall of the superincumbent rock into the aperture. There was some appearance of an artificial rearrangement of the fallen blocks, by which a kind of barrier was formed, narrowing the width of the mouth of the cave to about 7 feet; but the artificial character of the barrier was not, to my mind, conclusively established. Beyond the barrier of fallen rock, and across the aperture of 7 feet in width, was the talus of earth and stones derived from the slow disintegration of the face of the cliff, by which the whole entrance was covered up and effectually concealed.

FFET 10

The method of exploration adopted was suggested by the circumstances of the case, and the cessation of the building and quarrying operations, consequent on the severity of the frost, fortunately afforded

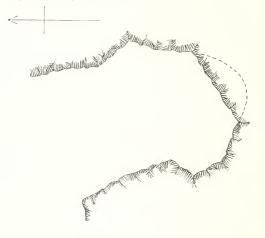


Fig. 2. Plan of the Cave. By J. H. Cunningham, C.E.

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the time necessary to carry out the examination of the deposits.

The access made by the quarrymen at the west side of the cave having removed all the rock at that side to a level somewhat lower

than the surface of the deposits in the interior, and the rock forming the roof having been also removed, while there still remained about 6 feet deep of a talus of earth and stones over the deposits towards the mouth of the cave, it was determined first to remove the whole upper layer of black earth from the interior of the cave, and then to sink a trench across the back part of the cave from west to east, so as to expose a section of the contents, while the upper part of the talus towards the mouth of the cave was being removed. It was found that underneath the layer of black earth there was a bed of shells, varying from 27 inches to about 3 feet in thickness, extending over the whole floor of the cave, and showing little or no intermixture of black earth or gravel, but here and there patches of ashes mixed with wood-charcoal, and charred splinters of bone. Under this shell-bed was a bed of fine clean gravel, composed entirely of small water-rolled stones. In this gravel, at a depth of about 18 inches (where the section was first made), there was intercalated a deposit of shells, which we at first spoke of as the lower shellbed, but which proved to be of partial extent and unequal thickness, thinning out towards the sides and towards the mouth of the cave, and in several places presenting an irregular or patchy appearance in the section, as if the shells had been deposited in heaps or pockets in the gravel. Underneath this intercalated layer of shells the gravel extended for about 4 feet or more to the cave-bottom, where it was mixed with large and small fragments of loose rock. The whole thickness of the gravel-bed under the upper deposit of shells was thus about 6 feet, including the intercalated lower deposit

The east side of the cave was thickly encrusted with adhering stalactites; and, in detached spots throughout the floor, the shells and gravel had been cemented into cakes by the calcarcous drippings from the roof. Premising that the layers of black earth, shells, and gravel thus revealed in the cross section were removed successively over the whole floor of the cave from north to south, and carefully examined spadeful by spadeful, I now proceed to give a summary of the results.

The black earth layer .- In this layer, besides the quantities of

bones of small vertebrates—presumably, bats, rodents, and birds—there were a few bones of animals, apparently (so far as they could be recognised) belonging to the larger ruminants. Towards the back of the cave, and under a projecting part of the roof which remained on the east side, a human skull was found on the surface of the black earth. A few feet further north, on the same side of the cave, another skull was found embedded in the black earth, almost on the top of the shell-bed underneath. Still further north, and only a few feet distant, were a good many other bones of a human skeleton. Two lower jaws were also separately found near these remains, on the same side of the cave.

The upper Shell-bed,-This, though called a shell-bed from its relation to the bed of black earth above it and the bed of gravel below it, is not a natural deposit, but an accumulated refuse-heap, the result of a lengthened occupation of this cave by man, and of the general use of shell-fish, whether as food or as bait, or for both purposes, by the occupants. It is not composed of shells exclusively. but is largely intermingled with bones of land and marine animals which have also been used as food, and with patches of burnt ashes or charcoal of wood. The bones are generally broken into splinters, and their charred fragments and the burnt condition of the shells in the neighbourhood of these patches show that the fires were kindled on the spot. The shells are for the most part of the edible varieties abundant on the neighbouring shores between the tide-marks, such as the limbet, razor, and scallon shells, Tapes, cockle and mussels, ovsters and periwinkle, and occasionally the larger and smaller whelks. As a rule, the shells were large, as if selected for their size, and not gathered indiscriminately—large and small together. Occasionally, also, they lay in patches of the same kind together, as if the produce of a single gathering of periwinkles, or of limpets, or of cockles had been thrown in one heap. Many of the flat valves of the Pecten maximus were broken into scoop-like forms, but these might be accidental, as the natural breakage of this shell, when trodden upon, is along the lines between the ribs. Very many of these shells were quite 6 inches in diameter, and the largest oysters reached 6 by 41

inches. Eroken and splintered bones were interspersed throughout
the whole of this mass of shells, scarcely any of the larger bones being
entire, and the splinters varying from 2 inches or less to 5 or 6
inches in length. A good many appear as if they had been gnawed
by dogs, although in other cases the great density and thickness of
the bone make it impossible to account for their fracture in this way.
Undoubtedly, the bones were intentionally broken and split up by the
occupants of the cave, and as undoubtedly this was done for other
purposes than access to the marrow, for we find the bones so treated
that contain no marrow, and even the shed horns of deer broken up
into splinters. One principal purpose for which this was done was the
manufacture of bone implements, of which a very large number were
found scattered through the beds of refuse and of gravel with which
the floor of the cave was covered.

The Gravel-bed. — When the upper shell-bed or refuse-heap was eleared off, there was exposed beneath it a layer of clean washed gravel or small-sized pebbles, extending over the whole floor of the cave. It rose slightly higher at the east side of the cave than at the west, and highest towards the mouth of the cave, where it was thrown up against the rock at the east side in a considerable slope. In the centre of the floor it was fairly level, and its depth seemed to be not less than between 5 and 6 feet.

The lower Shell-bed,—Intercalated in the upper part of the gravel, and covered by gravel to the depth of from 6 to about 18 inches, was a deposit of shells of irregular thickness, not extending over the whole floor of the cave like the upper shell-bed, but thinning out and disappearing towards the sides, and on the east towards the mouth or entrance. Where it was first shown in the section towards the south end of the cave it was 9 to 12 inches in thickness, but near the centre of the cave it went down into a hollow in the gravel to a depth of 26 inches; a few feet further back it showed on the opposite sides of a trench 2 feet wide a thickness only of 5 and 9 inches respectively, while in other parts it varied from a mere scraping to 3 or 4 inches in depth, and in other parts thinned out and disappeared. Like the upper shell-bed, it was mixed with broken bones of animals, and both

the shells and hones were more decomposed and friable than those in the upper bed; but this may have been due, partly at least, to the fact that the gravel-bed was much wetter than the shell-bed above it. The same shells and hones of the same species of animals were found in both shell-beds, and the same varieties of bone implements.

The Implements. — All the implements recovered from the cave are of bone or deer-horn, with the exception of three hammer-stones, and a number of flakes and chips of flint, a few of which show signs of secondary working, though none are really implements in the sense of being fashioned and finished.

Implements of Stone.—The hammer-stones are oval, oblong, waterworn pebbles. The largest is of grey sandstone, 3 inches in length by 1½ inch in width, and little more than 1 inch in thickness, with rounded ends, both of which are abraded by use. On one of its flatter sides there are two small pits, like those on so-called anvil-stones, and on the other side a single pit of the same description. One of its narrow sides also shows marks of abrasion by use as a hammer-stone. The second hammer-stone is a small, oval, oblong, rounded pebble of quartitie, 2½ inches in length and 1½ inch in diameter, with rounded ends, both of which are much abraded by use. There are also marks of use near the middle of one of its flatter sides. The third hammer-stone is a slightly smaller pebble of porphyritic stone, similarly marked on the ends and sides.

Other pebbles were found, with fainter and scarcely perceptible signs of use.

Twenty flints were found, of which three were mere natural nodules from 1½ to 1 inch in diameter; and four ½ inch in diameter, which were in their natural condition. Eight were chips or broken nodules, from over 1 inch to ¾ inch in diameter, with no secondary working. Two were split nodules, from each of which four or five small flakes had been struck; two were broken flakes, one of which had a slightly scraper-like finish at one end; and two were slightly curved flakes, 1 inch and 1¼ inch in length, the longest showing wear, as if by use as a side-scraper.

Implements of Bone,-The bone implements consist of pins, awls

or horers, rubbers or smoothers, formed from splinters of bone or deer-horn, with the broad end rounded off or polished by rubbing; and barbed harpoon-heads or fish-spears of deer-horn.

The pins are three in number, of which only one (fig. 3) is apparently entire, measuring 2¼ inches in length, nearly of the same thickness throughout, but tapering slightly towards both ends; the second is only 1¼ inch in length, the end broken off; and the third is but about an inch of the point of a very wellward with the property of the proper

made pin, which has been completely charred in the fire.

The borers are also three in number. They differ from the pins in being very much stouter, and expanding towards the butt-end. The largest, which is still adherent to the mass of shells cemented together by the stalagmite in which it was found, is 3 inches in length, the butt-end flat and rounded, and the other end drawn to a fine, sharp point. The second (fig. 4) is also 3 inches in length, but stouter, and with a stronger point; and the third, a more slender splinter of the same length.

Five rather slender bones, 2½ to 3 inches in length, and two spines of some big fish, 1¼ inch in length, may or may not have been used as pins or borers, but they are not artificially fashioned for this purpose; and three bones, apparently of birds, which were pointed out to me by Mr James Simpson, are flattened on one side.

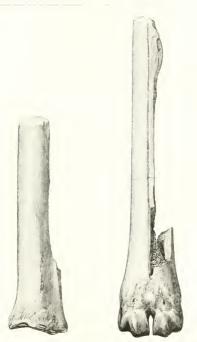
Figs. 3 and 4. Bone Pin and Borer. [.)

The round-nosed, chisel-ended implements are the principal features of this cave. Their number is very great, and their likeness to cach other extraordinary. One of deer-horn and two of hone are shown in figs 5, 6, and 7. One hundred and forty of these implements were found, all single-ended except two, which had bevelled or rubbed surfaces at both ends. One of these is shown in fig. 8. They varied in size from 3 inches to 1½ inch in length, and were all formed in the same manner of a splinter of leg-bone or of deer-horn, the one end of which was left with the fractured edges untouched, and tapering to a rough, uneven point; while the other was shaped to a rounded or more or less bevelled edge, of the width of the splinter. All show much wear, as if from rubbing on the bevelled end, but none whatever on the unshaped end of the splinter. Some, made of a very dense bone, have a high polish



Figs. 5, 6, 7, 8. Implements of bone and deer-horn. (1.)

on the rubbed end; and the chisel-like edge is worn quite round, like the edge of an ivory paper-cutter. The widest is fully $\frac{3}{4}$ inch at the broad end, the edges of which are rounded and polished for $\frac{1}{2}$ inch back from the working face of the tool. The rounded end, of course, is the working end; the other end, with the tapering form, and bearing the rough edges and irregular



Figs. 9, 10. Bone Implements made from leg bones of deer. $-\gamma_s \lambda$

point of the original fracture, presents no sign of use, and it is impossible to imagine any kind of use for it of sufficient importance to warrant the trouble of rounding off the other end as a butt. That the apparent butt-end is really the end for use, and that its form is the result of use, and not merely of fashioning, is plain from a study of the objects, and from comparison with the two largest implements found (figs. 9 and 10), which have worn and bevelled ends similar to the smaller ones. Both are made from the leg-bones of deer, which have been broken across at a distance of 5 and 7 inches from the joint, and split longitudinally, the end of the split bone furthest from the joint being then turned into an implement of this kind. The beyel on its rubbed and polished end, with the wear and polish at the corners and sides, is exactly that of these shorter implements formed from a triangular or tapering splinter. But if you were to haft one of these by inserting the tapering unworked end into a handle of soft wood 3 inches in length, you would have the exact counterpart of the two larger implements on which the joint end of the shin-bone is left as a handle.

The use of these implements is not suggested by anything beyond their form and characteristics, but it is plain that they have been subjected to much use, and use of a kind that has smoothed and sometimes striated their ends, rounded off their corners and edges. and imparted to the densest bone of which they can be made a high degree of polish. I know no tool that comes nearer to them in modern use than the bone tool, not very dissimilar in shape and construction, with which the country shoemaker used to finish the welts of his shoes. We have, however, in the Museum a series of tools almost similar, and similarly made from the shin-bones of oxen or deer, which through long use have acquired a similar high polish at the ends; and a similar, and in some cases even a greater, smoothness and saponaceous feel, suggestive of the absorption into the bone of much animal fat in the process of dressing and working in skins. These bone tools have been found in greatest numbers in primitive prehistoric dwellings, or in refuse-heaps of shells and split bones, chiefly in the Orkney Islands. Similar tools have been found in the Swiss Lake-Dwellings, and are still made and used for dressing skins by the Esquimaux and other skin-clad tribes of the Arctic regions.

The harpoons or fish-spears are seven in number. They are all made of deer-horn. Of the seven, only two are entire, the others being merely fragments of the point-end, showing from two to four barbs. The largest (fig. 11) is in the butt-end for the line, which is used either to attach it to a float or to be retained in the hand after the fish has been struck, and the head of the harpoon disengaged from the shaft. It is 6 inches in length, and flattish on the under side, which shows the cancellated structure of the horn, but the other part of the horn, presents a kind of ridge, or midrib, running from the point to within about an inch of the butt, which is tlattened and rounded off. There are four barbs on each side, the first within half an inch of the point, and the others alternating, so that the points on one side come nearly in line with the middle of the space between the points on the other. The barbs do not stand free from the shaft of the implement entirely, but are cut



Figs. 11, 12. Harpoons of deer-horn. 14.

the edge, and only about a quarter of an inch of the extremity of the

barb is free. The cuts appear to have been made by the sawing backwards and forwards of a sharp, rough-edged tool, which thickened rapidly towards the back. They are apparently such as would be made by working with a splinter of flint or other sharp stone.

The second harpoon (fig. 12) differs from the first only in being smaller in size and having no perforation in the butt. It is 4½ inches in length, and has four barbs on each side, similarly made, and placed almost opposite to each other.



Fig. 13, Small Harpoon of deer-horn, (3.)

The third harpoon is merely the point-end, $2\frac{1}{4}$ inches in length, with two barbs on each side, not placed opposite to each other, but alternately.

The fourth and lifth have merely about 1½ inch
of the point-end, showing the bases of two barbs.
The sixth and seventh (fig. 13) are 2 inches in length,
with two barbs each, and have the butt-end rounded
off, as if made from a broken portion of a longer
implement, the marks of the incisions of another pair
of barbs being still visible at the base.

These harpoons are extremely interesting, as being the first specimens obtained from a Scottish cave.

Similar harpoons have, however, been found in a large mound known as Caisteal nan Gillean in the

island of Oronsay, as recorded by Mr Symington Grieve, F.S.A. Scot, in his monograph on "The Great Auk, or Garcfowl." This mound was explored in 1879-82 by Mr Grieve and Mr Galloway. It was nearly circular in form, 150 feet in diameter, and about 30 feet high, composed in its upper and lower parts of blown sand, but having a refuse-heap of shells and bones nearly 8 feet thick intercalated near the top of the mound. The contents of this refuse-heap were the usual edible shell-fish of the sea-shore (the limpet being the most abundant), remains of the wrasse, grey mullet, dog-fish, and skate, and remains of crustacea. Of marine animals there were the rorquat, the grey seal, and the common seal. Of land animals, chiefly the red-deer and swine. The ox was not represented, and the sheep by only a single bone, which may have come from the surface. The implements

were eleven bone harpoons or barbed fish-spears; bone pins or borets:
"also a number of bones rubbed at one end, some on both sides, so as
to form an edge, and others only on one side," made chiefly of the bones
of the red-deer. These last appear to be of the same character as the
rubbing or skin-dressing implements from the Oban cave. A few hammerstones and a few chips of flint were also found, but no finished implements
of flint or other stone. Here and there throughout the mass were the remains of fire, consisting of embedded patches of ashes, charcoal, and wood,

Unfortunately, no detailed description of these implements from Caisted nan Gillean has been published, so far as 1 can ascertain, but I am informed that the harpoons resemble those found in the Oban cave, both in their general character and in being made of deer-horn.

The only other example which resembles them in its general character is that found in the neolithic stratum of the Victoria Cave at Settle, in Yorkshire, which is described and figured by Professor Boyd Dawkins. It lay upon the grey clay at the base of the accumulated deposits near the entrance of the cave, and from the same stratum were taken a bone bead with linear ornamentation, three rude finit-flakes, and broken bones of the brown bear, stag, horse, and Celtic shorthorn. This harpoonhead is 3 inches in length, and has two barbs opposite to each other on either side, and two opposite to each other but pointed the reverse way, near the butt, which has the same broad, flattened, elliptical shape as those from the Olan cave. The barbs are cut into the shaft in the same manner as those of the Oban harpoons, though they stand out somewhat more freely from the edge.

A doubly-barbed harpoon-head of bone was also found in Kents Cavern, near Torquay, in Devonshire, along with other two which were barbed on one side only. They were found in the cave-scarth under the stalagnitic floor, and associated with implements of palacolithic types. The Kents Cavern harpoon, however, differs from the Scottish examples, and from that found in the Victoria Cave, in having its barbs cut free on both sides of the shaft, and standing at a much less acute angle. In character it therefore resembles the French and other Continental examples of palacolithic times.

1 Care Hunting, p. 112.

Harpoons barbed on both sides, made principally of reindeer-horn, have been abundantly found in the caves of Dordogne and other parts of France. They also occurred in the cave at Kesslerloch, 1 near Schaffhausen, and at Mont Saleve, near Geneva. As before observed, these pakeolithic harpoons are characterised by their free-standing barbs, and the great majority of them are unperforated. Some, however, do possess perforations in the butt-end; and while they are styled by some writers harpoons,2 and by others spear-heads, M. Lartet has remarked that "without definitely limiting the use of these weapons to the ancient fishermen, it may be stated that remains of fish are found in the stations with the barbed implements, and none occur with the lanceolate spearheads." A harpoon of reindeer-horn, from the paleolithic station of Laugerie Basse,3 in the Dordogne, now preserved in the museum at Toulouse, is, however, very similar to the Oban ones in the way in which the slanting barbs are cut, and has also a rounded and flattened butt. with a perforation made in the same manner. But it is described as of a type extremely rare in Perigord. Another, 83 inches in length, also with a flattened and perforated butt, and the barbs standing free, but slanted backwards at an acute angle and slightly curved, was found in the neolithic lake-dwelling station at Latringen, in the Lake of Bienne, in Switzerland. Others have been found in other lake-dwellings.4

The fishes speared, both by the paleolithic fishermen of the French caves and the neolithic fishermen of the Swiss lake-dwellings, were exclusively of fresh-water species—chiefly salmen, trout, carp, bream, and tench. But sea fishes were apparently taken in this manner by the fishermen of the Danish kjökkenmödblings,⁵ in which bone fish-spears have been found with remains of flat fish, mackerel, &c. The fishremains found in the refuse-heap at Caisteal-nan-Gillean, with harpoons

¹ Exercations at the Kesslerloch, near Thayngen, Switzerland, by Connad Merk, Lee's translation, 1876, p. 38, and plates vi., vii., viii., and xiv.

² Reliquire Aquitanica, p. 100.

Materiaux pour l'Histoire de l'Homme, vol. xiv. p. 96.

⁴ Materiaux, vol. xv. p. 10, pl. ii, See also vol. xviii, p. 360 and p. 527, and vol. xxi, p. 60 and p. 93.

Madsen's Danske Oldsager, Steenalderen, pl. xl.; Montelius, Antiquites Suedoises, vol. i. p. 14.

of bone similar to those of the Oban cave, were the wrasse the grey mullet, the dog-fish, and the skate.

There is one very curious statement on record of the existence of the practice of spearing sea fish on the West Coast of Scotland which brings it down to the beginning of the last century. Martin, who has recorded more obsolete customs than all the other travellers in Scotland put together, has the following passage in his account of the Western Isles, under the head of Skye:—

"The Grey Lord, alies Blackmouth, a fish of the size and shape of the salmon, takes the limpet for bait. There is another way of angling for this fish, by fastening a short white down of a goose behind the hook, and the boat being continually rowed, the fish run greefilly after the down and are easily explit. The Grey Lord swims on the surface of the water, and then is easily explit with a spear, a rope (line) being tied to the further end of it and secured in the lisherman's hand."

Unfortunately, Martin has omitted to describe the precise kind of spear by which the natives of Skye were accustomed to catch the grey lord (which I take to be the saithe or coal-fish) when swimming on the surface; but there is little doubt that this spearing of sea fish in 1700 on the West Coast was a direct survival of the ancient custom, and not a new invention.

The Fauna of the Cave.—The human and other osseons remains from the cave have been submitted to Professor Sir William Turner and his assistant, Mr James Simpson, from whom a detailed report will be subsequently obtained; but Mr Simpson has kindly supplied me with a provisional list of the fauna, which is sufficient for the present purpose. The animals whose presence has been determined are the red-deer and roe-deer (the former of great size), the ox (los longifrons) or Celtic shorthorn, the pig (also of large size), the dog, the badger, the otter, and the cat. The bos primipanius, the large long-horned ox, is not present; and neither the horse nor the sheep has been determined. Fishbones are numerous, but usually in bad preservation. They indicate, in many cases, lish of very considerable size, such as might have been captured even by the large-of of these harpeons; but the species have not been determined, although I thought I recognised the lower jaws of a wrasse and a saithe among the number of better-preserved ones. The large edible crab or partan was represented, curiously enough, by no portion of the shell except the great claws, which were, however, very plentiful. Bones of birds were few, and these apparently sea-fowl, but the species undetermined.

It is thus evident that the fauna of the cave is the ordinary recent fauna of the district. There are no extinct animals; and the only feature of the refuse-heap which calls for notice is the great preponderance of shell-fish as compared with other food supplies, whether derived from the land or the sea.

The age of the Refuse-heap.—The inquiry into the age of the refuseheap does not include an inquiry into the age of the cave itself, which is a purely geological question. The cave was obviously there, and accessible, when the human beings first took possession of it. But it is a question pertinent to the occupation of the cave, whether the sea had wholly and finally left it when they first took possession; and this question may be answered in the affirmative or in the negative according to the interpretation that may be given to certain facts connected with the manner in which the refuse of the people's food is found to be deposited in relation to the gravel-bed which overlies the rocky floor of the cave. This gravel-hed itself is ages younger than the cave, because, at the time when the wash of water within the cave was sufficiently deep and strong to do the work of excavating the rock, little or no gravel would remain within it. The gravel-bed therefore does not belong to the time when the land sat so low in the water as to permit the free influx and reflux of the waves in volume over the cave-floor, but rather to a time when the sea was retiring, and a beach was being formed in front of the cave. Then the work of filling up the floor with gravel would be performed by the heavier storms driving into it the lighter gravel from the beach. That beach, however, was not the present beach, which is fully 100 yards off, but a beach on a much higher level, or fully 30 feet above the level of the present beach. That the gravel-bed in the cave is really the inwash of the sea when it stood at that level I think there can be no doubt; but that any of it was thus washed in subsequently to the first occupation of the cave by man requires to be substantiated by evidence of the clearest and most irresistible kind, because it involves the question of the alteration of the relative levels of sea and land by fully 30 feet since the neolithic period in the West of Scotland. For, as I have said before, there can be no question of the character of the fauna of the cave, which cannot be considered as having any relation to palæolithic times. Even if we had any proof of the existence of palæolithic man in North Britain, he could hardly be associated with a fauna of a character so totally distinct from that with which he is always found to be associated in South Britain, unless on the hypothesis of some special reason for the difference of the fauna. But the evidence of the mere superposition of the upper layer of the gravel over the lower shell-bed is not decisive enough to carry the inevitable consequences. The lowest point reached by driving an iron bar to the bottom of the gravel was 34 feet above the Ordnance datum line. The cave is nearly as broad as it is long, and consequently, when the gravel was being washed in, there would be a tendency in the reflux to wash out the centre, and leave it heaped up towards the sides. Probably, also, when the washing-in power was nearly exhausted, a bank would be thrown up towards the mouth of the cave. Finally, it would be left with its gravel bottom quite uneven, and higher towards the sides than at the centre, and probably higher at the mouth than further in. When, therefore, the cave was taken possession of by the people who brought to it daily such provision of shell and sea fish and such land animals as they obtained for food, and cooked and consumed their common meals within it, the refuse of their food and occupancy would fall into and fill up the lowest levels of the hollows in the gravel floor, and the higher portions being so loose and mobile would be trodden down over it, so that it would be intercalated in the gravel in patches and pockets, as it was found, while the gravel so levelled down would also be mixed with refuse and implements.

On the other hand, I must allow that it did appear to some of us, while the excavations were in progress, that the upper portion of the gravel-bed at least must have been washed in over the deposit of foodrefuse which was intercalated within it, and consequently that the occupants were for the time driven out, but afterwards resumed possession, and retained it without further disturbance from the sea, In that case the upper deposit of shells and food-refuse above the gravel and beneath the black earth would be the only part of the contents of the cave accumulated since the sea retired from the higher level, while the deposits of refuse intercalated in the gravel would indicate the occupation of the cave during the time when the sea stood at the higher level, and occasionally washed into it. But it seemed to me that the force and volume of the waves that would carry this gravel into the very back of the cave would necessarily lift and disperse or carry out with the reflux at least the lighter parts of the deposit of refuse—empty shells, charcoal, and ashes. Nevertheless, the patches of shells intercalated in the gravel still retained among them the smaller and lighter shells as well as the heavier, and occasional deposits of ashes and charcoal. But there is no absolutely decisive evidence for either of these suppositions; and even though my objection be found to have little value, there is no escape from the conclusion that, if the upper gravel was washed into the cave after its occupation by man, it must have been during or subsequent to neolithic times, for archæologically the fauna and implements of the cave must be classed as neolithic at the earliest,

other Cares at Oban.—This cave is the fourth that has been discovered at Oban in the range of cliff which rises over the old raised beach behind the town. They are situated as follows, proceeding from south to north:—(1) behind the Gasworks, a small cave with shells and bones; (2) behind the Distillery, a much larger cave, with a very considerable refuse-heap, explored by Mr J. W. Higgin in 1890, also contained a quantity of human remains, including one small skull and eight lower jaws, some flint chips and bone implements; (3) the present cave in Mr MacArthur's feu near St Columba's Church; and (4) at the corner where Xursery Road enters Strathaven Terrace was a considerable cave, containing human remains, flint implements and flakes, and the bones of existing animals,—which is described by Sir William Turner in the Report of the British Association for 1871. [A detailed account of the human and animal remains found in these caves is given by Sir William Turner at p. 410 of the present volume.]

II.

NOTE ON THE "BANNOCKBURN" BAGPIPES OF MENZIES. By D. P. MENZIES, F.S.A. Scot.

The office of pipers to the chiefs of Clan Menzies was held hereditarily by a family of MacIntyres, a name which means "the sons of the curpenter." Traditionally they are said to have been the pipers to The Menzies since before the days of Bruce, and to have headed Clan Menzies playing the bagpipes at the battle of Bannockburn. The pipes preserved in their family, and handed down from father to son until the time of the late Sir Neil Menzies, Bart, are now known as "The Menzies Bannockburn Bagpipes." They are referred to by MacIntyre North.\(^1\) Three portions of them remain:—

- (1) The chanter, which has the same number of finger-holes as the modern chanter, but there are two extra holes on each side. These holes are much worn away round their edges. The chanter measures over all 13¼ inches, and gradually tapers for 12 inches, ¼ inch at the reed socket to 1 inch diameter at the point, from where it is gradually convexed outward for 1¼ inches to form the horn-shaped or trumpet end or mouth, which measures 2 inches diameter over all, with three turned lines on its bottom surface. The inside core tapers from ½ inch in diameter at the horn end to ¼ inch diameter at the reed end.
- (2) The blowpipe, which is square, but graduates to the round at the month-piece, measures 9½ inches long over all, with male seeket at wide end 1½ inches deep by ¾ of an inch diameter; it is 1 inch square at this end, and tapers for 5¾ inches to ¾ of an inch square, then graduates on
- ³ Back of the Club of True Highlanders, in which is a plate of them (No. 56), as the remains of the oblest known hagpines. But the oblest known bagpines that can be really authenticated as to date are the set bearing the date 1409, the property of Mr Robert 60-n, F.S.A. Scot., which are described and figured in the Proceedings, vol. xiv. p. 121.

to the round, having a male socket for mouth-piece $1\frac{1}{2}$ inches deep by $\frac{5}{6}$ of an inch diameter, tapering to $\frac{7}{16}$ of an inch diameter.



Fig. 1. The Menzies Bagpipes.

(3) The drone. The top half only of it remains. It measures 91 inches over all, and is bored out inside for 6 inches by 3 of an inch diameter bore, then other 3 inches by 3 of an inch diameter bore, which forms a female socket: the outside at this part is 1½ inches diameter 3¾ inches up, it then tapers towards the centre from 2 inches diameter to 3 in, diameter; here there

is a rudely formed band, \(\frac{3}{4}\) of an inch broad and 1 inch diameter, having two small bands at its edges; from this it tapers for \(3\frac{1}{4}\) inches to \(1\frac{3}{4}\) inches to \(1\frac{3}{4}\) inches diameter at the end of drone; at the socket end it is mounted with a horn band \(\frac{3}{4}\) inches deep, which has three small lines round it.

The bag and bag-sockets, as shown in the reproduction (fig. 1). are restorations, and were executed by Fipe-Major Duncan MacDongal, Aberfeldy, who, on completing them, played a selection of Highland tunes. To get them to play, however, it was necessary to fill up the wormcaten holes, but after much trouble and care he was successful in restoring them to a playing condition. Their tone is somewhat loud and harsh: from their having only one drone, the air or melody is heard more distinctly than in the modern bagolipe. He also sent me the following identification of them by an old pupil of the MacIntyres:—

"I have interviewed Alexander Menzies, Aberfeldy, with regard to the old relies of bagpipes, said to have belonged to the MacIntyres, hereditary pipers to The Menzies of Menzies. Alexander Menzies, now over eighty years of age, lived next house to the MacIntyres in Rannoch, 1820–1840, and was a pupil learning pipe-music with them. He well remembers seeing the pieces of the old bagpipes with the MacIntyres, who put great value on them, from their having been in their family for several hundred years."

These Menzies pipers lived at Rannoch in later times. They seem to have been sent by the chiefs of the Menzies from time to time to the MacCrimmons, the well-known teachers of pipe music at Dunvegan, Isle of Skye. The first of them of whom we have any note is Donald Mor MacIntyre, as having returned from the Isles, as the piper to Sir Alexander Menzies, first Baronet of Menzies, about 1638. His son. John MacIntyre, also completed his knowledge of pipe music under Patrick Oig MacCrimmon, piper to the chiefs of the MacLeods. He is known as the composer of the piobaireachds, "The Field of Sheritfmuir" and "The Menzies Salute," Failte na Meinerich. Mackay says, in his Collection of Ancient Pipe Music, 1838 :- "This fine, bold piobaireachd is the composition of John MacIntyre, son of Donald MacIntyre, in the Brae of Rannoch, who was, at the time of the battle of Sheriffmuir, piper to Menzies of that Ilk, chief of the name about 1715." His son, Donald Bane MacIntyre, succeeded him as hereditary piper to Sir Robert Menzies, third Baronet of Menzies; Sir John, fourth Baronet; Sir Robert, fifth Baronet; and Sir Neil, sixth Baronet of Menzies, some years after whose succession to the chiefship Donald Bane died, and left two sons, Robert and John. Robert had become piper, before his father's death, to the late W. Robertson MacDonald, chieftain of Clan Ranald. On the death of his father, being the elder son, the "Menzies Bannockburn Pipes" came into his possession. He, on the death of

chieftain MacDonald, went to America, but left the old pipes in Scotland with the MacDonald-MacVicar of Invermoidart, and they were sent to me by Mrs MacDonald-MacVicar of Invermoidart, and have now been identified by his father's old pupil, Alexander Menzies, who herded the piper's cattle when a boy. John MacIntyre, the brother of Robert, lived in the Menzies Rannoch country, where he died about 1834–5, leaving a son, Donald, who had a farm called Alaxich, at the top of Loch Rannoch. Robert MacIntyre, the last of the race of Menzies pipers, unfortunately having gone to America, the chief, Sir Neil Menzies, appointed Alexander Dewar as piper to Clan Menzies, but he went to Mid-Lothian about 1842–3, when John MacGregor was appointed to the office, which he held under Sir Neil and Sir Robert, the present chief, until 1890, when he died, and was succeeded by his son, Neil MacGregor, who is now piper to Sir Robert Menzies, seventh Baronet.

[The Society is indebted to Mr D. P. Menzies for the use of the block of the Menzies Bagpipes from the Red and White Book of Menzies.]

III.

NOTES ON A SWEDISH STAFF-CALENDAR, PRESENTED TO THE MUSEUM BY THE HOS. JOHN ABERCROMBIE, F.S.A. SCOT., DATED 1710. BY H. F. MORLAND SIMPSON, M.A., F.S.A. SCOT., RECTOR OF ABERDEEN GRAMMAR SCHOOL.

This staff is hexagonal, 2 feet 5½ inches in length, of a light brown (stained?) wood, smooth in grain. At the two ends knobs have been attached subsequently (!), rude in form, evidently intended to save the carving from rubbing. The runes, symbols, &c. are well but not finely cut.

This staff is remarkable, and, within my observation, unique in several conspicuous details:—

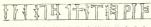
The forms of the runes employed for the Sunday letters.

\$130714

2. The commencement of the year with January 8 (unique !).

The reading, if we go by the symbols, is from right to left, —.
 This is not uncommon on older staves.

4. The use of 15 symbols or letters occurring regularly to every other Sanday letter. These occupy the position usually assigned to the Golden Number Runes or Prime; but I have failed to discover their meaning, or find anything like them on any other staff-calcular. Beginning with the one attached to January 8 (small-knob end) these 15 signs are:—



(here inverted or "stuped" for convenience).

 $\label{eq:constraints} J_{\rm eff} \approx ~10 - 12 - 14 - 16 - 18 - 20 - 22 - 24 - 26 - 28 - 30 - 1 - 3 - 5 \\ {\rm Feb.}$

Some of these are Runes; others apparently Roman letters; others again, neither. Undoubtedly they are numerical, and probably contain some method of finding the movable feasts; but I know of no cycle of 15, except that of the Roman Indiction, with which I cannot homologate the above 15 signs.

The prominence given to certain more peculiarly Romish festivals (note those for the B.V.M., and "All Souls," November 2), and the absence of the Protestant November 6, Gustav Adolf, seem to indicate that this staff was made by or for a Roman Catholic; but this evidence is very inconclusive. Even the modern Protestant almanacks retain feasts abolished in practice; and probably November 6 was occasionally marked on the staves in commemoration of 8t Leonard.

 The vigits preceding the festivals of the Virgin, Apostles, Holy Rood, Vule, John Baptist, All Saints, and S. Michael are prominently marked by a cross, sometimes slanted, to make room for the symbol of the feast following.

6. The symbols are often merely initials, or the first two or three letters of the saint's name, e.g., the Tiburtius; NI = Nichelas; ca = Catharine, &c.

The staff is dated Anno 1710.

8. This is the first staff I have seen which bears the "Black-Days" or "Dies Ægyptiacas," days on which it was unlucky to commence any

undertaking. Such days are regularly indicated in the old Abbey Calendars of Scotland, in the famous Colex Membranaceus of Worm, a Runic church calendar, dated 1328, and in the calendar attributed to Bede. The observance of these days, which was very wide-spread, perhaps universal, though local and personal circumstances seem to have introduced great varieties into the lists usually found in the above. I have noted marks, undoubtedly indicating "Black Days," on several calendars of which I have photographs or illustrations. Frequently the day is marked by a small nail or brass-headed tack driven in above or below the day-letter. Here they are marked by [= , finely scratched, but perfectly distinct. There are in all 24 such marks, occurring to—

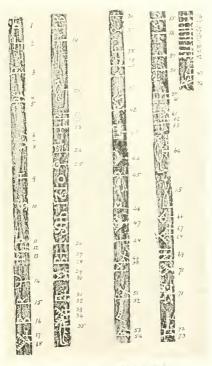
Jan. 1, 2, 4, 29.	Jul. 9.
Feb. 11, 17, 18, 29.	Sep. 10, 18
Mar. 1, 4, 14, 16.	Oct. 6,
Apr. 10, 17, 18.	Nov. 6, 10.
May 7.	Dec. 11, 18

Those in italic type I find in the lists of such days observed in "Gaul" and Denmark, in Worm's "Fasti Damici." The whole subject is a curious study in itself; but as I propose to examine it fully on some future occasion, it will suffice to remark here that the above agreement with Worm's lists renders the explanation given quite certain. The three exceptions, January 29, February 29, and July 9, were perhaps personal and private.

The first rune of each month is indicated by three strokes to the right.

The "Mark-days," their symbols and meanings, are as follows:-

D:	Date. Jan, 8-9		l, as on 7.	Meaning and Saint, &c. Perhaps owner's initials; not attached to these days.	
Jan.			I		
	13	12	2	Tiugunde Day, or 20th day after Yule.	
22	19		3	S. Henry BD.	
	24	22	4	The cross marks the Vigil to the 25th. Possibly the A,	
				to this, the first of the Vigils, is for Alten = Evening. The day is (rarely) marked in honour of S. Erik's	
,,	25	31	5	Translation. S. Paul's Conversion: usual symbol of the sword. The popular of the hill is about to form the initial P.	



Symbols of Mark-days on Swellish Statt Calcular. From a rubbing.

Date		Symbol, as in Fig. on		Meaning and Saint, &c.
		P. 2	37.	
Feb.	1	No.	6	Vigil
	2	22	7	Parification (R = "Renelse") B.V.M.
12	3	33	8	Blasius.
**	9		9	Apollonia?
	tō.	27	10	Sigfrid Bp.
	22		11	S. Peter at Antioch.
	23	**	12	Vigil.
	24	4.1	13	Matthias Ap., "Leap-Year's Day."
37		11	14	Gregory. Is the symbol meant to denote the Equinox
Mar.	12	12	14	(O.S.)?
",	17	,,	15	Gertrude? Not very often marked. I suspect the R is for some abbreviation of the name, e.g., "'Rude"?? (in German, "Trude").
	21		16	Benedict.
"	21	**	17	Vigil.
	25		18	Annunciation B.V.M. "Mary mass the former," or in
**	20			Annunciation B.V.M. "Mary mass the former," or in Spring (i Vaar). The same symbol recurs to her other days, e.g., July 2, &c., with varying number of points and dots. Is it a fameiful V for Virgo?
Apr.	14	,,	19	Tiburtius. "The first day of Summer," hence its pro- minence. The symbol is suggestive of a sun and rays?
11	25		20	Mark and his "Gowk" (Cuckoo). "Cuckoo-Day."
19	30	12	21	Vigil.
May	1	12	22	Philip (and James), "Apostles Twain."
22167	3	17	23	Finding of the Holy Rood. "Cross mass in Spring."
**		'',		Cf. September 14.
27	18	22	24	Erik, King. Urbanus. Frequently marked by a Grain, especially
22	25	11	25	of maize.
June	11	22	26	Barnabas. Not often marked.
22	15	12	27	Vitus (and Modestus). Not often marked. The symbol
				is not attached to the day, and may belong to the B of June 17th, q.v.
1.	17	12	28	S. Botolph, of Ikanhoe, or Ivanhoe.
22	23	11	29	Vigil.
*2	24		30	S. John Baptist. "Midsummer's Day."
11	28	11	31	Vigil.
11	29	- 17	32	S. Peter. Key.
July	1	17	33	Vigil.
11	2	22	34	Visitatio B.V.M. Cf. March 25, &c.
**	5		35	? The modern Swedish almanack gives Melcher. The
				Cm. of Worm (1328 a.d.) marks it merely as the octave (of S. Peter's Pay).
	10	12	36	Knut, Lee Knud (Danish). Knut, the Reaper. Scythe,
27	10	33		as usual.

Date	Symbol, as in Fig. on p. 237		Meaning and Saint, &c.		
July 13	No.	37	Margaret. Usually marked to the 20th.		
22		38	Mary Magdalene,		
21		39	Vigil,		
-29		40	(?)		
		41	Olaf. Axe, as usual.		
Aug. 5	**	42	Dominic? Oswald?		
., IO	12	43	Lawrence, Gridiron.		
., 15		44	Assumption B.V.M. Cf. March 25, July 2, &c.		
., 24		45	Bartholomew. Note the absence of a Vigil to this and		
			S. Barnabas. Much less prominence is usually given to their days on the Scandinavian calendars than to the other Apostles.		
31		46	Key? Arwid!? (modern Swedish Almanack).		
., 31 Sept. 8	**	47	Nativity B.V.M. (7. August 15, &c.		
	**	48	Elevatio S. Crucis, "Holy Rood in Autumn." ()		
	**		May 3.		
., 20	22	49	Vigil.		
21		50	Matthew Ap. Ev.		
., 28	11	51	Vigil. Michael. The symbol probably denotes a graduate		
29	32	52	steel-yard, in allusion to S. Michael's scales.		
Oct. 6	**	53	Eskil. Rarely marked. (f. my article, Proc. Ant. Scot 1892, p. 365. The Modern Swedish Almanack give "Bruno." The two side strokes to the unexplaine symbol are the marks of an "unlacky day," ref.		
_			above, p. 236.		
11 7		5.1	Birgitta, Specially Swedish, Gereon ? Barely marked, Symbol unintelligible		
,, 10	77	55	About this time (October 14, Calixtus), the winter half of the year begins. The omission of Calixtus remarkable.		
13	**	56	(?) An error for 14th. St Callixtus; almost always give		
18		57	Luke Ev. An inverted L?		
. 21		58	S. Ursula and 11,000 Virgins.		
27		59	Vigil.		
. 28	"	60	SS, Simon and Jude. "Apostles Twain in Autumn The day was commonly called Fyribod = Forebode vide Proc. Ant. Scot. (1891), sub die p. 325. Henc the F.		
21		61	Vigil.		
Nov. I	.,	62	All Saints. Hallowmass, "Helgerne."		
,	11	63	All Souls. A Roman Catholic festival, abolished:		
., 2	*7	174)	the Reformation, but retained in the modern Pre- testant Calendar, though not frequently marked o		

Dat		e.	Symbolin Fit p. 2	c. on	Meaning and Saint, &c	
	Nov.	11	No.	64	Martin and his Goose,	
	"	23	"	65	Clement. Pincers and Nail? Symbol unexplained. Usually an Anchor.	
		25		66	Catherine, CA.	
	71	29	77	67	Vigil.	
	3*	30	17	68	Andrew,	
	Dec.	6	11	69	Nicholas.	
		8		70	Conception B.V.M. The varying number of points	
	21	O	11	,,,	and dots to her symbols (cf. September 8, &c.) may be intended to denote varying degrees of sanctity attached to her days.	
		13	39	71	Lucia. The symbol perhaps intended in some way to denote the solstice (old style).	
		2()		72	Vigil.	
	77	21	22	73	Thomas Ap.	
	.,	24	12	74	Vigil, (Extra large.) Christmas Eve.	
	44	25	77	75	Yule. Here and in the succeeding days, including	
	11	20	"	10	January 1st the octave, we have what is probably intended to denote the Julchys, Yule Tide Candles.	
					The special sanctity of this to other days is empha- sised by the double stroke at the base of the vertical	
					stroke or "staff" of the symbol. Cf. December 21 and passim.	
		26	- 11	76	Stephen,	
	21	27	12	77	John Ap. Ev.	
	12	28	22	78	Innocents. "Bairns' day."	
	22	29	12	79	"Thomas Bishop," i.e., Thomas à Becket, not very often	
					marked, and perhaps only as one of the Yule-week days,	
	13	30	12	80	Sabinus of Assisi. David (modern Swedish Almanack), but cide sub December 29,	
		31	- 11	81	Sylvester Pope, but ride sub December 29.	
	Jan.	1	.,	82	Circumcision. Octave of Yule, vide sub December 29.	
				-	The two fine horizontal strokes to the right mark an unlucky day, vide p. 236 above.	
		5		83	Vigil.	
	* 9	5	12	84	Epiphany. Holy Three Kings. "Heligtrekonger."	
	- 7	6	7.0	01	Symbol probably TR for Trekonger,	

Monday, 8th April 1895.

REGINALD MACLEOD, Vice-President, in the Chair,

A Ballot having been taken, the following Gentlemen were duly elected Fellows:—

Charles E. S. Chambers, Editor of Chambers's Journal, 7 Glencairn Crescent.

A. W. Chisholm, Goldsmith, 7 Claremont Crescent.

Sir George Douglas, Bart., Springwood Park, Kelso.

Andrew Granger Heiton, of Darnick Tower, Architect, Perth.

The following Donations to the Museum and Library were laid on the table, and thanks voted to the Donors:—

(1) By Rev. William Telford, F.C. Manse, Reston.

Small Jug-shaped Vessel of brown earthenware, 1²₄ inches high by 1¹₄ inches diameter at the mouth, and glazed only on the inside, with remains of flat projecting handle at the rim, found in excavating the foundation of the Free Church at Reston, Berwickshire.

- (2) By W. G. T. Watt, of Skaill, Orkney, Corr. Mem. S.A. Scot. Six old West African Trade Beads (varieties).
- (3) By William Laurence Young, F.S.A.Scot, Anchterarder. Portion of a large Cinerary Urn, with twisted cord ornamentation, found at Drumturk, parish of Trinity Gask, Perthshire.
 - (1) By D. P. Menzies, F.S.A. Scot., the Author.

The Red and White Book of Menzies—The History of Clan Menzies and its Chiefs. 4to, Glasgow, 1894.

(5) By the Committee formed to promote the erection of the Drummond Memorial, through A. P. Purves, W.S., F.S.A. Scot.

Memorial to William Drummond of Hawthornden, Svo, Edinburgh. Privately printed.

VOL. XXIX.

(6) By J. T. Brown, F.S.A. Scot.

Caledonia, or a Historical and Topographical Account of North Britain. By the late George Chalmers. New edition, Vol. VII. Now printed from the hitherto unpublished MSS, in the Advocates' Library, 4to, Paisley, 1894.

(7) By Brigade-Surgeon Lieut.-Col. Wm. Johnston, of Newton Dec, the Author.

A Genealogical Account of the Descendants of James Young and Rachel Cruickshank, 1697–1893. Privately printed, 1894.

(S) By the Master of the Rolls.

Historians of the Church of York, Vol. III. Acts of the Privy Council, 1575-77.

(9) By the Society of Antiquaries of London.

Proceedings of the Society of Antiquaries of London. Second Series. Vol. XV, parts 1 and 2. Archæologia, Vol. LIV, part 1.

(10) By the British Archeological Association.

Journal of the British Archæological Association, Vol. L. parts 1-4.

(11) By the Archeological Institute.

The Archæological Journal. Vol. L. parts 1 and 2.

There was also Exhibited :—

By Walter J. Kaye, F.S.A. Scot.

Rubbing of the Brass of Sir Roger de Trumpington (1209), in Trumpington Church, Cambridgeshire.

Mr Kave supplies the following notes on the rubbing :-

The memory of Sir Roger de Trumpington is perpetuated by a monumental brass laid down on the upper surface of a canopied altartomb in the Church of SS. Mary and Michael, Trumpington, Cambridgewhire. In point of age it stands second on the list of English brasses, being preceded alone by that in memory of Sir John Daubernoun, at Stoke d'Abernon in Surrey, date 1277. The knight is represented with his hands in the attitude of prayer and his legs crossed. He is clad in a hauberk of chain-mail, with coif de mailles or hood, chausses or stockings, gloves, and genouillières, while a linen surcoat hangs from his shoulders to a point below the knees. His shield, supported by a guige passing over the right shoulder, is convex, and bears the coaf-ofarms of the wearer, which is repeated on the ailettes which formed the protection for the shoulders and neck. The label of five points only occurs upon the ailettes: marks on the shield show us that the engraver had left his work unfinished. Sir Roger's head rests upon his tilting-helmet, which is attached by a heavy chain to his girdle. His sword hangs from a broad belt on the left-hand side, its scabbard being adorned with four small shields, whereon are emblazoned the arms before mentioned; the lower end of the sword terminates in the mouth of a hound which crouches at the feet of its master. Straps across the insteps of the feet serve to retain in position very formidable

Additional interest is imparted to this brass by the fact that Sir Roger de Trumpington's is the only brazen elligy extant on which the tilting-helmet is portrayed.

The following Communications were read:—

T

AN OGAM INSCRIPTION AT ABERNETHY, 1895. BY THE RIGHT HON. THE EARL OF SOUTHESK, K.T., LL.D., F.S.A. Scot.

Introductory Notice.—In the Scotsman of January 30th, 1895, there appeared a letter from the Rev. Dugald Butler, M.A., minister of Abernethy in Perthshire, reporting the discovery of an inscribed tablet in the churchyard of that place,—"a sculptured stone . . . [about] 19 inches in length, 13 in breadth, 4 in thickness," which was exhumed "a little north of the foundation-wall of the ancient Celtic church [demolished in 1801], about 4 [5] and a half feet under the soil, very mear the spot where a sculptured stone with excised cross was found a year ago." This newly discovered stone, continued Mr Butler in the same narrative, offers interesting traces of primitive art, bearing on its face an inscription in Ogams, accompanied by symbolic devices, consisting of a crown-like object above the groups, and a bird below them (see the diagram on p. 249).

A few days after this discovery, the stone was sent for inspection to the Museum of Antiquities in Edinburgh, where, owing to peculiarities to be presently discussed, doubts arose as to the character of its inscriptions, which, if not fictitious, appeared to have been tampered with in modern times.

For a few days more the stone remained in Edinburgh, from which place Mr Butler, with a courtesy which 1 gratefully acknowledge, was good enough to forward this relic to myself, inviting my opinion in regard to it, and in several letters very amply supplying me with information to assist the inquiry.

With these aids and advantages, I have considered the question in all its bearings, and have devoted many hours to a study of the stone; but I regret to find myself still unable to arive at any certain conclusions, and my only course is to set down what I have heard, seen, and noted in the matter, without expressing an opinion on either side.

Narrative of the discovery.—The stone was found on Tuesday, January 29th, 1895, in the situation already described, by the sexton and his son, who were opening a grave in the churchyard at Abernethy, in presence of one spectator—Mr Marr, the discoverer, some five years ago, of an Ogam-bearing fragment, and another ancient fragment inseribed with a representation of the crucifixion. The soil, on which the men were working with pick-axes, could not have been recently moved, being "as hard as a rock" from long-continued frost; it bore no traces of disturbance, and, as far as known, had not been moved for any purpose within the memory of man; an interment, however, had taken place some fourteen years ago in a contiguous grave, which since then had been undisturbed. On reaching a depth of five and a half feet (as the sexton states) the stone was noticed, lying among boulders supposed to belong to the ruins of the old church, and so tightly packed with earth that it was difficult to raise it from its bed. The inscribed face lay downwards, and the right edge, which was overgrown with short green moss, was in touch with the adjacent grave, and near to the coffin. "Each [of the three men] saw the stone in its position when buried in the soil, and helped to unearth it."

A messenger was then despatched to Mr Butler, who at once went to the churchyard. On his arrival he found the Post-master and the Parochial Board Inspector—who had arrived inmediately after the discovery—engaged with the finder in clearing the stone from earth and scrubbing it over with a wet brush. "I at once saw the birdsymbol," writes Mr Batler, "the crown-symbol, and the central line of Ogams." After this, the stone was taken to the Parochial Office, and

Extract from Letter to Rev. D. Butler from Mr James Bennet, Parochied Board Inspector, Abernethy, dated March 6th, 1895;—

[&]quot;I was not present when the stone was uncarthed, but was so shortly after, and as I thought it was a genuine sculture, I surf for yon. In the bir where it was found the gravedigger had broken through what looked to me like an old foundation, principally of rubble, with lime. This rubble, so far as my memory serves me, was no both north and south sides of the hir (litat was) being dag, and on the north side, where the stone was found, the edge or side of a colfin of a recent [some fourteen years ago, as since explained] burial, a little below the rubble building, ansexpassed to view. It was possible the stone may have been standing in its edge, with the green portion of the stone next the surface: this is the only way the growth of greenness can be accounted for. There have been some stones found, on the same line, north and south from this, about which there is no doubt they are accient.

there, continues Mr Butler, "unknown to me, it was again scrubbed, and the inscription run over with the finger-nail of the tinder." On the following day, in Mr Butler's absence, "a gentleman came from Dundee to take a rubbing from the inscription for Dr Anderson." Shortly afterwards, as mentioned, the stone was sent to the Edinburgh Museum, whence, after it had been inspected, Mr Butler, being then in Edinburgh, was good enough to send it to the present writer, who has returned it to Abernethy, where it now rests.

Arguments against the Inscriptions,-1. In general character these inscriptions resemble no existing example. The stem-line, exactly one foot in length, is horizontal, and as straight as if run on a ruler, instead of being irregularly hand-drawn and vertical, as in practically all similar cases.1 Nothing resembling the arcs on the line, or the crown and bird above and below it, occurs elsewhere. The symbols, both in style and character, are unlike any that are found on the sculptured stones of Pictland, though the Ogams are framed on Pictavian models. The letters are practically all vowels, and seem to yield no definite meaning. On no explanation can the legend be viewed as embodying proper names in the manner of all other Ogam epitaphs. 2. The workmanship is suspicious. Some of the lines and scores are mere seratches, such as a common iron nail might produce, while some, rather deeper, are square at the top, as if cut with a small gouge or chisel, Two (accidental?) nicks made by the same instrument appear to the left of the X formed letter below the crown, 3, The fresh whiteness of the lines and scores is so glaring that, for the most part, as they now appear, they cannot but be modern-sometimes altogether so, sometimes as regards their interior surfaces. The hardness of the stone ("sharp silicious grit," as I am informed) proves that the clearing of the scores by wet brush and finger-nail could not have affected their interior surfaces, nor could these processes have left any markings on

¹ The only examples within my recollection of Ogams on a horizontal stem-line are these: I. One word, in company with a Hilberton Roman inscribed name, on a Nord at Chomanenois (Stokes, Chr. Lus, vol. i. pl. ii.); 2. A few groups on small objects (Brash, thg. Mon., pl. xii.); 3. A few brief inscriptions in M88, (Brash, do.); 4. An Ogam fragment, of some three letters, found at Abernetity about five years ago, All these, from their style, are of late origin.

such a material. As the lines have unquestionably been more or less lately retouched with hard instruments, it is clear that an unknown person at an unknown time has tampered with the inscriptions, and doubt is cast upon the whole; for either the stone was buried somewhat recently after renovation of its lines, or the full story of its treatment after the present uncarthing remains to be told. 4. The presence of moss growing on an edge of the stone shows that that part of it must have been not long ago exposed to the air. Such vegetation could not exist on a stone that had been buried for centuries, 5. The whole design is suspicious. The neatly balanced arrangement; the affectation of novel Ogam forms (the arcs—suggested perhaps by diphthong characters in the Ballymote "key") amidst commonplace groups; the easy symbolism of the crown and dove; the triteness of the initial capital beneath the crown;—all are suggestive fundering revery.

Asymments in farour of the Inscriptions,—1. The inscription is much later than any other lapidary Ogam yet discovered. The horizontal stem-line and the style of the scoring suggest familiarity with manneripts, on the engraver's part. 2. Granting—what cannot be denied—that, as a whole, the surface of the work is modern, granting that it is mostly impossible to judge how far the lines are new and how far they are restorations of older lines, there yet remain some cases (to be presently specified) where the old graving can be distinguished from the new.

3. The moss appeared only on the stone's edge, where it approached a coffin in the adjacent grave, and it has been suggested that some chemical action may have generated the growth. The soil, I am informed, is not a clay, though it was hard and firm when excavated. I. The stone may have been found, and the inscriptions retouched for examination when the old church was demolished in 1801, then thrown saide and buried with other fragments among the ruins. But after minety-four years' burial could the restorers work appear so fresh? Farther, would any one have troubled himself over the inscriptions at a period when antiquities were little cared for and Ogams practically unknown? Questions hard to answer. Even in 1801, it is possible that, from mere curiosity, some one might have cleaned out the scores and

figures, and not unfaithfully refreshed their lines. These, however, are mere surmises, and the mystery seems likely to prove insoluble, for the character of those concerned in the present case frees them from all suspicion of concealment or duplicity; and, were it otherwise, their unacquaintance with recondite antiquarianism forbids the idea of forgery on their part. 5. If this work is fictitious, one question strongly suggests itself,—The forger having knowledge enough to frame so plausible an imitation, why did he fail to better it by the easy process of following the style and plan of authentic inscriptions? If he sought for effect, why refrain from composing a sensational legend, illustrated with mystical symbols, instead of running vowels in an improbable sequence, and portraying common forms of almost laughable simplicity? 6. On ordinary lines the legend seems meaningless, but it may be mediaval and non-Celtic, and, as might be shown, not beyond an explanation that would fairly account for some of its peculiarities.

Analysis of the Inscriptions.-No. 1. Arc of circle, below stem-line, inscribed with three dots. No. 2. Are of circle, above stem-line, apparently inscribed with three dots, but they are not very clear. No. 3. Arc of circle, above stem-line and near centre of groups, inscribed with one dot. No. 4. A. No. 5, U. An angled vowel, but the first score is nearly straight. No. 6, U. Might be N6, but (on analogy of Pictish inscriptions) the slant is insufficient, and though the "key" sanctions this NG group, it occurs in no example known to me. Might be ABHA, the central score being broken, but spacing, group-character, and general considerations discourage such a rendering. No. 7. A. The "refresher" has not marked this score, and it is barely visible. It shows (faintly) under a strong light, and the space seems to require it. Nos. 8, 9, 10, OHA, Angled scores, The lower central score standing nearly midway between the two central upper scores, it is hard to say whether these numbers should not be read as AllO. A dot or point above the line follows here, and a corresponding hollow beneath the line may perhaps be the remains of another dot. Nos. 11, 12, 13, AHO. The lower strokes of No. 13 are doubtful, for scarcely any depression exists beneath the modern scratchings. On the whole I accept them, on grounds of probability. Nos. 14, 15, A,O. Angled

vowels on a separate stem-line. Possibly U, but the spacing or in favour of division. An unrefreshed curved line continuing the upper line of the third score suggests by its direction the idea of a leaf-shape-I enclosure of this independent part of the inscription; it is more probably an accidental mark.

No. 16. A seven-rayed Crown. Has been thought to represent the sun, but in that case the body would be round, or at least its convexity would turn upwards. The four central rays seem to meet at the points in pairs, forming leaf-shaped figures, but the terminal lines that produce

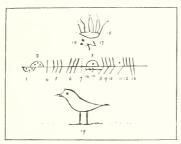


Diagram of Inscription and Symbols on Stone found at Abernethy, 1895.

this effect are modern scratches, as likewise is a faint outer line designed to give the right-hand ray a similar appearance. This crown is shown in perspective, and looks modern; some of its lines, however, are older than the restorations near them. No. 17. N or Z. A capital letter beneath the crown, very doubtful and not well defined, being perhaps a mere fracture refashioned. No. 18. Two modern, square-headed indentations formed by a small goage or chisel, the same that has been used in cutting the heads of scores in group No. 6. It is hard to account for these marks: they seem to be intentional, but form no part

of a device. No. 19. A Bird. Might be meant for the Christian dove, but more resembles a crow or a sea-gull. The restorer has substituted a scratch for the real beak, which is just above it, and he has omitted to refresh the eye. The actual legs are hard to determine, as likewise the ground-line beneath, which (if existent) is not above 3 inches long, though the restorer's scratches extend it widely on either side.

Summary of the Legend.—AU UA [AO] OHA AHO.

Conclusion.—The object under consideration bears no resemblance to any Ogam relie in Ireland, England, or Wales. Its letter-forms are Fictavian, but not so its symbolism, which rather approximates to the Mithraic, Gnostic, or Semi-Christian type. Its text, moreover seemingly meaningless if viewed either as Celtic record or modern forgery, the preponderance of vowels forbidding the supposition that common words are indicated in it either by contraction or initialling—undoubtedly bears a likeness to some of the Hebrew-gnostic legends of Alexandian origin. But though numerous Mithraic remains of the Roman period have been found in Britain, we could not assign the present inscription to so early a date, for it is evidently later in style than any of the Ogam legends of Pictavia, some of which almost certainly belong to the eighth or minth centaries.

It might, nevertheless, be a product of that mediæval revival or survival of Gnosticism, examples of which abound in the form of inscribed rings and other talismanic objects, and occur among the marks of ancient and modern Masonry. Whatever the date of his work, the inscriber seems to have had some acquaintance with Gnosticism and Ogam-writing as well as Christianity, but to all appearance he has used his knowledge incongruously, the legend being confused and the symbolism dubious; while the Ogams, besides being ill-cut, and strangely jumbled in groups 6, 8, 9, 10, are drawn horizontally, manuscript fashion, instead of vertically, are arranged on a ruled stem-line, and are of a mixed type and crowded character, which neither please the eye nor compare satisfactorily with any authentic example.

Under the circumstances of doubt and difficulty yet attaching to these inscriptions, it would be idle to attempt an interpretation of the legend. I will merely, in conclusion, point out that each main section of it (accepting No. 7 as a score) reads forward and back—AU UA—OHA AHO. This, taken with the rest, goes far to indicate that the inscriber, whether ancient, mediaval, or modern, worked not entirely at random, but with a certain definite intention, whatever might be his object and design.

Н.

TRACES OF THE CULTUS OF ST FILLAN AT KILLALLAN, RENFREW-SHIRE. By J. M. MACKINLAY, M.A., F.S.A. SCOT.

Houston and Killallan now form one parish, but were separate till 1760, when they were formally united by a decree of the Court of Teimbs.\(^1\) Their real union, however, did not take place till eleven years later, when the Rev. John Menteith, minister of Killallan, became incumbent of both parishes on the death of the Rev. John Carrick, minister of Houston.

One of the most interesting traces of the cultus of St Fillan at Killallan is in the name of the parish itself. This name means the church of Fillan. It is derived from the Gaelic *iil*, a cell or church, and *Faolan*, better known as Fillan, the F having been lost through aspiration, according to a familiar rule in Gaelic. Of the three forms of the name, *Killidlan*, *Killidlan*, and *Killidlan*,² the first has now disappeared. The second is still in use in the district. The third is the one best known beyond the parish.

There must have been a place of worship at Kiliallan at a very early date, but concerning it we have no information. The date 1635 is inscribed on the linted of the ancient parish church. After the church of Houston became the church of the united parishes, Kiliallan Kirk was allowed to go to decay. From the Old Statistical Account of Scotland we learn that, though no longer used as a place of worship in 1791, it had still its roof on. The structure is now an ivy-clad ruin, and forms the burying-place of the Barochan family.

I am informed by the Rev. D. Kirkwood, minister of Houston and

Origines Parochiales Scotia, i. 81.

² The name has sometimes only one I in the first syllable.

Killallan, that when Killallan Kirk was unroofed, the bell was removed to Barochan House. Wishing to get further information, I wrote to Mr C. B. Renshaw, M.P., of Barochan. Mr Renshaw was from home at the time, but Mrs Renshaw courteously supplied the following facts: -" The bell of Killallan, about which you write, now hangs in a tree in the gardens here, and is in daily use. It has been recast. The original inscription was no doubt copied, and runs in a plain band round the upper part of the bell. It reads thus :- "Caroles-Hong-Me-Ferit-1618-, Then, on the opposite side,- 'Killal'an-Bell-Darid Burges, Founder, Glasgow, 1844.' The bell is an ordinarily shaped one, and no doubt was cracked at the time that Mr Fleming had it recast." There is still a difficulty requiring to be met. Chalmers, in the third volume of his Caledonia, says, "The inscription on the church bell records the name of the saint to whom the church was dedicated, and who was regarded as the tutelar saint of the parish." The saint's name is not now on the bell. The most likely explanation is that the bell of 1618 was itself reeast, like the one of 1844, and that the original one bore St Fillan's name. The stone font belonging to the church stood, for long after the Reformation, outside the door, but was, at a later date, built into the wall of the surrounding graveyard,2 In the neighbourhood of the church, and deriving their name from it, are the farms of High and Low Kirktown,

The question arises, who was the saint to whom Killallan church was dedicated? In reference to St Fillan, Bishop Forbes, in his Kalendars of Scottish Saints, remarks, "the Scottish saint of this name must be either the saint whose commemoration is found both in the Scottish and Irish Kalendars on the 9th of January, or a saint whose day is on the 20th of June." The second of these is commonly known as Faolan, the Stammerer or the Leper. He was a disciple of St Ailbe in the 6th century, and, along with several others, was despatched by his master on a missionary tour. He settled at Ratherran, i.e., the

Page 837, note.

² Old Statistical Account of Scotland, vol. i. p. 316.

This name is spelt in a variety of ways.

⁴ Page 343.

Fort of the Earn, now Dundurn, in Comrie parish, Perthshire, and gave his name to the village of St Fillans, at the lower end of Loch Earn. That this is not the saint who gave name to Killallan is proved by the fact that St Fillan's festival was celebrated here not on the 20th of June, but on the 9th of January. In 1824, Chalmers, when describing Killallan, says, "Saint Fillan's Fair is still held annually at this place in January." This fair has long been discontinued, but its former existence is of value in settling the point in dispute. We have therefore to turn to the other St Fillan in our search for the patron saint of Killallan. This saint is still remembered in the name of Strathfillan, forming the upper part of Strathdochart, and in the river Fillan flowing through Strathfillan into Loch Dochart. The dates of his death and his birth are not known, but he is believed to have flourished in the early 8th century. According to the Aberdeen Breviary, quoted by Bishop Forbes, the saint came of a noble family of the Scoti in Ireland, and had for father, Feriach, otherwise Ferodach, and for mother, Kentigerna, who afterwards betook herself to a solitary life on Inch Cailleach in Loch Lomond. The saint's legend states that he a lake, where he was ministered to by angels for a year. He was then found by Bishop Ybarus, who brought him up and instructed him in the Christian faith. The saint received the monastic habit from Abbot Mundus, who is still remembered in the name of Kilmun, on the Holy Loch, in Argyllshire. On the death of Mundus, Fillan was appointed his successor. It is not certain where this monastery was. At a later date, Fillan is said to have gone to Lochalsh, where he built a church in honour of his uncle St Congan, founder of the monastery of Turritl in Aberdeenshire. In fact, as Bishop Forbes remarks, "at the present day Kilkoan and Killellan, the churches of Congan and Fillan, bear testimony to the truth of the legend." 2

The chief seene of St Fillan's work was in Strathfillan and its neighbourhood, probably in the district extending from Tyndrum to Killin,

¹ Calcalonia, vol. iii. p. 837, note. Vide also Origines Parochiales Sectia, vol. i. p. 81.

² Kalendars of Scottish Saints, p. 341,

where the church was dedicated to him, and where he was held in such reverence that the mill was left idle on his festival till well on in the present century. The saint built a church somewhere in Strathfillan, on a spot miraculously indicated to him. The site is not now known, but the ruins of St Fillan's Priory, founded by King Robert the Bruce, are still to be seen about half-way between Tyndrum and Crianlarich, Not far from the ruins, in the river Fillan, is the Holy Pool, resorted to for the cure of insanity, from a very early date till within quite recent times. St Fillan's bell and erozier, now in the Society's Museum, require only to be named to recall much familiar antiquarian lore.

There is a spring sacred to St Fillan at Killallan. It is situated in a field close to the church. Though now neglected, it was once regarded with considerable reverence. The writer of the article in the Obl Statistical Account of Scalland 1 observes:—"There is a spring-well called Fillan's Well, issuing from under a rock, shaded with bushes hanging over it, to which it is reported that the country-women used to bring their weak and ricketty children and bathe them in the water, leaving some pieces of cloth as a present or offering to the saint on the bushes. This custom continued till about the end of the last (i.e., the 17th) century, when one Mr Hutcheson, who was then minister, caused the well to be filled with stones."

The water used at baptisms in the church is believed to have been drawn from this well. There are now no bushes hanging over it, but some 20 feet higher up the field is a hawthorn bush, crowning another small rocky height.

In the same field is an earth-fast boulder, known as St Fillan's Seat.
On the top is a circular hollow about 14 inches across, forming quite a
comfortable resting-place. To the right, as one sits, and near enough
to be within reach of the hand, is another hollow, irregularly oval
in shape, 9 inches long by about 3\frac{1}{4}\text{ broad. According to a
local tradition, St Fillan sat in the seat and performed the rite of
baptism with water out of this cavity. St Fillan seems to have had a
liking for stone seats. He had one that long stood beside the mill at
Killin, but unfortunately it was cast into the river Dochart, flowing

hard by, and was thus bost. His namesake, the other Fillan, dready referred to, is said to have sat in a rocky seat on the top of Dunfillan, near Comrie. The stone received the name of St Fillan's Chain, and till the end of last century was associated with a superstitious remedy for rheumatism in the back. The person to be cured sat in the chair, and was then dragged down the hill by the logs, the saint's influence guaranteeing recovery. To sum up the traces of St Fillan's cultus at Killdlan, we have his church, his bell, his spring, his seat, and the name of the parish, in which is embedded the name of the saint himself.

111

ARCHÆOLOGICAL NOTES ON DUNVEGAN CASTLE. By LOCKHART BOGLE, F.S.A. Scor.

The statement of Dr Johnson and others that "MacRailt, the Dane" had built a castle at Dunvegan in the 9th century is one upon which it will not be difficult to form an opinion. The carliest date that can be assigned to the original keep now existing on the top of the rock goes back to the 14th century. It is possible, however, that the summit may have been originally crowned by one of those mysterious brochs, of which there are the ruins of five in the neighbourhood, on the shores of Loch Dunvegan, viz., Duns Thotaig, Osdale, Colbost, Borreraig, and Corlorach.

In his description of the castle, Boswell (1773) says:—"There is a very large unfinished pile, four storeys high, which, we were told, was here when Leod, the first of this family, came from the Isle of Man, married the heiress of the MacRailts, the ancient possessors of Dunvegan, and afterwards acquired by conquest as much land as he had got by marriage." The above-mentioned ruinous building is shown

¹ Ordnance Gazeteer of Scotland, sub-roce Dunfillan.

² On the other hand, Skene, in his account of Clan Leod Skene's Hoddlanders, vol. ii. p. 273), states that for the Norwegian origin of the Macleods there is not the vestige of authority, and, so far from this account of their origin being sanctioned.

by Grose in his view of the castle (1790) (fig. 1), and is undoubtedly the oldest part of the castle as it stands. It was simply a massive oblong keep, with a small but lofty tower embedded in the north side. From its structure we know it to have been built in the 14th century, and it was restored to use again about the end of last century. The Macleods of Glenelg, otherwise styled of Harris and Dunvegan, had charters of David II. (1329-71) so this part of the castle which belongs to the 14th century must have been built by them. I give a drawing, founded on measurements and research, of the probable appearance of the castle about this time, with its sea-wall girdling the rock. All is suggestive of nothing but vast strength and isolation (fig. 2).

Any vestige of what might be supposed to have been Macrailt's fortress (except, perhaps, what seems a curious elevation of the sea-wall to the north) does not exist. Secular building in stone and lime was introduced into England, and later into Scotland, by the advent of Norman influence; and the statement made by 19 Johnson and others that the present keep was built in the 9th century by the Danes is quite untenable.

In the sea-gate is presented an interesting study. A drawing, looking towards it from the sea, is given (fig. 3). The larger original arched gate-way can easily be discerned, enclosing the smaller door-like entrance, which, from its appearance, I attribute to the time of Rory More (15th century). The dimensions of the original entrance are 7 feet 3 inches wide by 8 feet 6 inches high. Until the time of the 19th Macleod (about 1750) this entrance was the only means of access to the eastle,

by the Chronicle of Man, that record is destitute of the slightest hint of any such origin, or even of any passage which could be assumed as a ground for such an biech Nor does the tradition of Norwegian descent appear to be very old, for in a manuscript genealogy of the Macbeds, written in the 16th century, there is not a tracofit. From the calliest period in which they are mentioned in history, they have been divided into two great families of Macbed of Glendg or Harris, and Macbed of Lewis, the former being of old the proper chief of the clan. They are said to have acquired the extensive bands in Skye (which they still hold) by marriage with the daughter of Macraild or MacArailt, one of the Norwegian nobles of the Isles, and from this connection, and the succession which was obtained by it, arose probably the tradition of their being descended from the Norwegian Kings of the Isles.



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and to it a rude flight of steps led up from the edge of the sea. A somewhat similar arrangement existed at Eilan Donan Castle, in Kintail. Boswell says the only approach to the castle, before the opening of the land-gate, was by boat to the sea-gate.

In the drawing (fig. 3) can be easily seen the large triangular keystone of the arch, the other stones of which radiate but little. At one side are two large vertical stones forming the checks; those on the



Fig. 2. Dunvegan in the 14th century.

other side have been removed in reducing the entrance to its present size, which is 6 feet 4 inches high by 3 feet 8 inches wide. The cheeks of the smaller entrance, though now so much worn, have been nicely carved, faced, and beaded.

Let us now look at another drawing, showing the same gate from the inside (fig. 4). Here is additional evidence of the gateway having been built up. On the right, part of a wedge-shaped mass of masonry has fallen away, revealing a very large beam- or bolt-hole (9 inches square), which I sounded to the depth of 10 feet. This hole was intended for the bolt of the original wide arched entrance. During the hours of night, or whenever a surprise was possible, the massive beam would be drawn from its recess and the end inserted in a hole

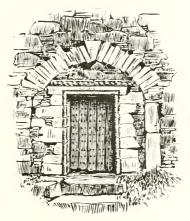


Fig. 3. The Sea-gate, Dunvegan.

on the opposite side of the gateway, thus effectually securing a door which must have been of enormous size and strength. The present door and bolt are modern. Two sets of former hinges for this smaller door are still visible.

Above the door can be seen the lower fringe of the outer arch, and

between this and the horizontal lintel across the door stones have been loosely built. On the left side, the arch has been also built into the masonry brought to the portcullis grooves. I suggest that these alterations were carried out in the time of Sir Roderick Macleod, a

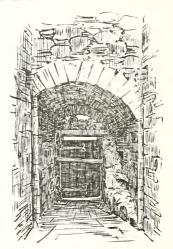


Fig. 4. The Sea gate, Dunvegan, from the inside.

chief who flourished in Queen Mary's period. This old ponderous door may have been an iron "grille" or grating, such as is to be seen in Fyvie Castle and others. I now give a plan of the ground-floor of the castle. What is black is of ancient date (fig. 5). The walls of what are now the cellars in the north and oldest part of the building are of the thickness of 11 feet, and originally they formed one large hall, presumably the servants' hall, with arched roof, and a beautifully arched fireplace (now bricked

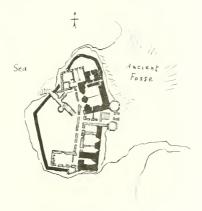


Fig. 5. Dunvegan Castle-plan of ground-floor.

up) at the south end. The modern cellar-doors would be windows to the hall. Immediately above it was another hall of the same size, which would be for the chief and his guests. The entrance to the keep itself was through the thickness of the north wall on a higher level than the ground-floor (as 1 have shown it in fig. 2). The passage is a yard wide in a wall 9 feet thick, and is still used, leading into the chief's hall. On looking at the plan, a primitive stair will be seen passing through the thickness of the north wall, communicating on the way with the dungeon by a narrow slit in the wall (near which is a bricked-up aperture, which might repay exploration). This stair has a loop-hole at its angle, and communicates between the hall above and the lower hall.

The dungeon, as seen on the plan, is the ground-floor of the small tower. It is 4 feet 4 inches by 6 feet, and can only be entered through a square opening in the small chamber above, secured by a large stone with iron ring, and it extends into the gloom below, where it has been excavated out of the solid rock to the depth of 16 feet. It has a narrow loop-hole facing the north, but high up near the arched roof, so that the inmate of this horrible prison must have been enveloped in darkness or semi-iswilight on the brightest day. Here it is known "Ian Dubh," one of the early chiefs, who waded through the blood of his nearest relatives to attain the chieftainship, had imprisoned some of his victims. The bottom of the dungeon was strewn with the bones of sheep, which may in bygone times have been thrown to the prisoners.

From the elevated entrance represented in fig. 2 there enters a flight of steps already mentioned through the thickness of the north wall to a high arched space, 5 feet wide, which enters the upper hall. Off this arched space, and as a continuation of the steps, is an opening only 21 inches wide entering a chamber above the dungeon 6 feet by 11 feet, furnished with two loop-holes, and the stone and iron ring before alluded to. Entering the upper hall again at the south-west corner is a curious chamber in the wall, 4 feet 6 inches by 3 feet 6 inches, which has finely dressed cheek-stones, hinges for a good door, and a small loop-hole, and recess opposite. This probably was a place for concealment of valuables in times of danger, -in fact, a kind of mediæval safe. The upper hall had, no doubt, the four windows it now has, but they must have been much smaller. The two storeys above it are now fitted up as bedrooms. Each chamber of the small turret above the dungeon has loop-holes, and communicates with the corresponding storey of the keep. In one chamber is a well-contrived latrine-

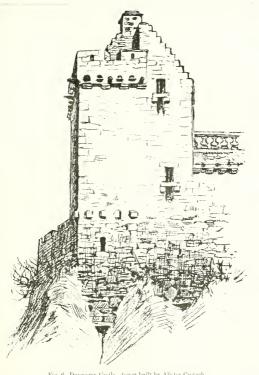


Fig. 6. Dunvegan Castle—tower built by Alister Crotach.



this latter alone going far to determine the date of erection. It seems that an epidemic of building strong square keeps raged in the Isles in



Fig. 8. Carved fragment, Dunvegan.

the 14th century, when the Scots began to raise their heads after the battle of Bannockburn.

" Alister Crotach," or The Humpbacked, built early in the 16th century



Fig. 9. Carved fragment, Dunvegan.

a very strong square tower, of which I give a drawing (fig. 6). It remains to-day outwardly as it was raised by this chief, a beautiful piece of mediaval castle building. A very steep and narrow winding stair communicating with the three chambers of the tower ascends to the crow-stepped roof. There is a passage round the edge of the roof, within the raised outer wall of the tower. There are peep-holes to look through, and embrasures to fire through, if necessary; the wall is high, and there is a sense of practical security from the enemy below, which



Fig. 10, Carved figure, Dunvegan.

does not pertain to the modern crenellations on the adjacent roof. Small stone cannon serve as gargoyles,

Fig. 7 is a view from land of the castle as it would have appeared in Alister Crotach's time; a grand specimen of compact strength,

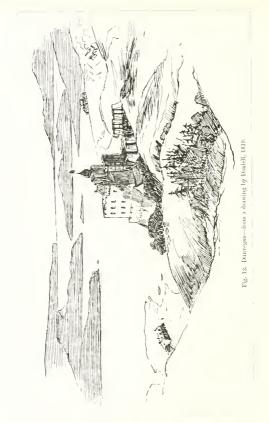
John Breac Macleod made many alterations and additions on the castle, as set forth on a slab of stone, of date 1686, now lying in the court-yard. He was the last to keep up the old feudal style of life in the Highlands, and retained his harper, jester, lard, and piper, who, with numerous retainers, thronged his halls, and contributed to foster among his people the fame and glory of their chief.

There is in the court-yard a fragment of stone, containing a carving of the early form of the thistle of Scotland (fig. 8), and another fragment containing a curious representation of what must be a bird (fig. 9).

In the court-yard, placed against the seawall, is a singular effigy in stone of a lady

(fig. 10), which undoubtedly came originally from the chapel on the mainland at hand, of which building the mere shell now stands. The shoes, with pointed toes and high heels, belong to the time of James II.; as also do the bunchy skirt, divided in front, and the high compressed bodice. The tight sleeves and head-dress are peculiar, perhaps Scottish in fashion, but belong to that period. I have little hesitation in putting her down as the wife of John Breaz Macleot,





whose name was Flora, daughter of Sir James Macdonald of Sleat. The slab setting forth the restoration is of date 1686, and has a moulding carved on it, which shows it to be of a piece with the slabs (figs. 8 and 9), on one of which occur the initials F M D for Flora Macdonald, and on the other, J M L for John Maclocod.

Norman Macleol, the 19th chief, Boswell says, opened out a doorway on the land side, probably about 1750, placing beneath it a flight of steps which reached to the bottom of the rock.

The next view (fig. 11) is taken from an old water-colour drawing in the castle. It represents the castle after Johnson's time, when some alterations had been made. The handsome stone balastrade, with stone cannon to correspond with those on the tower, is of considerably older date. In this drawing we see that the old keep has been renovated, and the small turret furnished with a dome-like roof. In all probability, General Macleod, 20th chief, carried out these alterations about the end of last century.

In the next drawing (by Daniell, 1819) there are great changes (fig. 12). The moat or ditch is filled up and bridged across, where two octagonal towers, with an arched doorway between them, form an inposing entrance. The stone steps leading down the rock from the former smaller door still exist in the entrance to the servants' portion of the building. There is also a pair of wooden drawbuilges.

In fig. 13, I give a view of the present castle, which has had some alterations effected on it by the late Macleod of Macleod.

It is known that there once existed in Dunvegan Castle numerous priceless relies, which were long cherished by the Maelcods. Though it is not within the scope of this article to enumerate those which are still preserved, I cannot refrain from mentioning some which have disappeared amongst them—the harp of Roderick Morrison, the blind harper of John Breae Maelcod. Boswell speaks of Rory More's bow, "which hardly any man now can bend"; and of his caken bed, with this inscription, "Sir Rorie Maelcod of Dunvegan, Knight. God send good rest." He also mentions "some old pieces of iron armour, immensely heavy." Pennant speaks of a "round shield made of iron, that even in its decayed state weighs near twenty pounds."

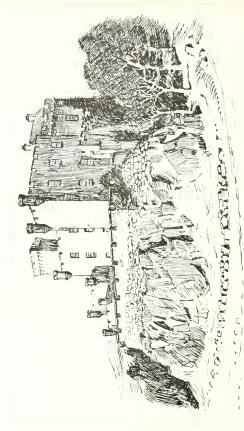


Fig. 13, Dunvegan Castle, Skye.

The late Macleod of Macleod most courteously afforded me every opportunity and facility for making the above notes on that interesting



Fig. 14. Drinking-Horn, Dunvegan.

stone-and-lime record of feudal power in the Highlands—Dunvegan Castle.

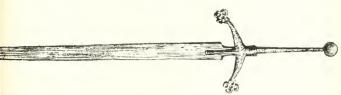


Fig. 15, Two-handed Sword at Dunvegan.

Monday, 13th May 1895.

THOMAS GRAVES LAW, Foreign Secretary, in the Chair.

The following Donations to the Museum and Library were laid on the table, and thanks voted to the Donors:—

(1) By Francis Tress Barry, M.P., Keiss Castle, Caithness.

Sculptured Stone, being a slab, of irregularly oblong shape, from the pavement beds of the Old Red Sandstone of Caithness, 3 feet 2 inches in length by 21 inches in breadth, and bearing incised sculpturings on one side only. The stone, which is exceedingly friable, had been broken through the middle, and a triangular space of the upper or sculptured face separated into many small

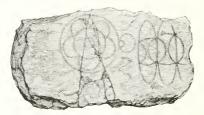


Fig. 1. Sculptured Stone, from the Birkle Hills, Keiss, Caithness. (12.)

fragments, which were, however, carefully preserved by Mr Barry, and after the receipt of the stone at the Museum the whole were pieced together and the stone bedded in eement. It was found on the smaller of the two sand-hills known as the Birkle Hills, at the mouth of the Water of Wester, on the estate of Keiss. These sand-hills are thus

described by Mr Samuel Laing, who made some superficial examination of them in 1864 :- "They stand amidst the hillocks of blown sand, about 200 yards from the sea-shore on the raised beach of sand and flat shingle stones which can here be traced distinctly for some distance, The larger mound is roughly conical, about 40 feet high and 120 yards in circumference at the base. The lower mound commences about 100 yards north-east of the other, and is a long irregular mound, which may be taken roughly at 30 feet high, 100 yards long, and 10 yards wide. The surface of both mounds is of sand, covered with small stones from the adjacent raised beach, and, in the case of the smaller mound especially, with a vast number of limpet or periwinkle shells, and animal teeth and bones,"-(Laing's Prehistoric Remains of Caithness, 1866, p. 30, and Proceedings, vol. viii, p. 47.) Mr Barry's recent excavations have disclosed the existence of the lower part of a very well-preserved broch on the larger Birkle Hill, which is titled Castle Linglas on the Ordnance map. The smaller mound has also been shown to bear the foundations of a dry-built structure, apparently of an oblong rectangular outline, and the sculptured stone was found among a number of other slabs laid flat in the area within these foundations, having been placed there apparently as pavement. The incised sculpturing is on one side only, and consists of two of the peculiar symbols of the early sculptured monuments, viz., (1) a disc or mirror-like figure, with a smaller disc at one side, answering to the handle of the mirror, and the body of the disc ornamented with two concentric circles, surrounded by five ares, not unlike a five-petalled flower figure; and (2) a figure of three ovals placed side by side, and each intersected in a peculiar way by four curves in the centre. The mirror-like figure, or mirror-case as it has been called, occurs on a good many of the sculptured monuments of the early incised class, from Aberdeenshire northwards, and one bearing on the disc a four-petalled flower-like figure very similar to this occurs at Inverury. The triple oval symbol is only known in Caithness, however, Until quite recently it was altogether unknown, the first example having been discovered at Sandside in 1889, and the second having been detected on the back of the Skinnet stone by Mr J. Romilly Allan shortly thereafter. This example from Keiss is therefore the third known of

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these northern stones bearing the new symbol, and is consequently a most welcome addition to the National Museum.

Circular Disc of red sandstone, 1½ inches in diameter and § inch in thickness, found in the course of the excavation by Mr Barry of the Road Broch at Keiss. The disc has been artificially shaped and smoothed, and bears on one side (fig. 2) some obscure markings like incised letters, and on the other (fig. 3) a number of incised markings within a border of two parallel lines, which have a suggestive resemblance to runes. Enlarged photographs of these have been submitted to Professor Stephens



Figs. 2 and 3. Disc of Sandstone, from the Road Broch, Keiss-(slightly enlarged).

of Copenhagen, Professor Bugge of Christiania, Dr Soderberg of Lund, Dr Bernhard Saline, of the National Museum, Stockholm, and other authorities, but without eliciting any decisive contribution towards the chucidation of the nature and significance of these inscriptions, if such they be. They certainly present more of the appearance of inscriptions than of ornament, and in this respect they can scarcely be classed with the discs of similar form and material, but slightly larger in size, from Scatness, near Sumburgh Head, in Shetland, which were also found in the ruins of a broch, and present ornamental designs on obverse and reverse.

(2) By Thomas John, 18 St Bernard's Crescent,

Perforated Wedge-shaped Stone Hammer, 11 inches in length, found in a moss at Auchencairn, Kirkcudbrightshire, in 1859.

(3) By Dr R. de Brus Trotter, Perth.

Small Stone Hammer of gneissose stone, found ten years ago at a tumulus on the farm of Toft Hill, parish of Tibbermore, Perthshire.

By John Graham.

Two Arrow-heads of reddish chert, from Louisiana, United States of America.

(5) By J. Maxtone Grahame, F.S.A. Scot.

The Stool of Discipline of the parish of Monzie. This "Stool of Repentance" was the seat upon which the delinquents found guilty by the Kirk Session of offences implying church discipline were placed to receive their rebukes from the pulpit in face of the congregation. In this case it is an ordinary oblong stool of pinewood, 21½ inches in length by 8 inches in breadth, and standing 17 inches high. Its supports are two boards joined to the seat near the ends, and having a triangular piece cut out of the lower end of each so as to make the stool stand, as it were, on four feet. A round hole in the top of the stool serves to put the finger through for carrying it. But for its height, it might have been an ordinary kitchen stool.

(6) By Francis J. Grant, W.S., F.S.A. Scot., Carrick Pursuivant, the Author.

The Grants of Corriemony. Privately printed, 4to, 1895.

(7) By V. Busuttil, Head-master, Government School, Vittorioso, Malta, the Author.

Holiday Customs in Malta. 12mo, 1895.

The following Articles for the Museum and Books for the Library, acquired by the Purchase Committee during the Session 30th November 1894 to 4th May 1895, were also Exhibited:—

Eight polished Stone Axes, and seven oval Knives of Porphyry, part of a hoard found at Modesty, Bridge of Walls, Shetland, in 1894. [See the previous Communication by Mr Kinghorn.]

Polished perforated Stone Axe, with hollowed sides, found at Lough Erne, Ireland.

Small Whetstone found at Leswalt, and another found at Markinch, Wigtownshire.

Twelve Discs of shale, from Portpatrick Churchyard.

Stone Axe, from Dunedin, New Zealand.

1ron Floor Candlestick, from Corsock, Dumfriesshire.

Polished Stone Axe, from Giffnock, Dumfriesshire.

Collection of Flint Implements, from Culbin Sands.

Report of the Commission on the Ober Germanische Ractische Limes. Heidelberg, 1894, 4to, Part I.

Antiquités de la Russie Meridionale. By Reinach, Kondakoff, and Tolstoi. Paris, 1891, 4to, Parts II, and III.

Spurrall's English-Welsh Dictionary. Carmarthen, 1872, 8vo.

Memoirs of John Napier of Merchiston, his Lineage, Life, and Times; with a History of the Invention of Logarithms. By Mark Napier, Edinburgh, 1834, 4to.

Memoirs of the Marquis of Montrose. By Mark Napier. Edinburgh, 1856, 8vo, 2 vols.

Memorials illustrative of the Life and Times of John Graham of Claverhouse, Viscount Dundee. By Mark Napier. Edinburgh, 1859, 8vo, 3 vols.

Nugae Derelictae: Documents illustrative of Scottish Affairs, 1206– 1715. By James Maidment. Edinburgh, 1888, 8vo.

Genealogical Fragments. By James Maidment. Berwick, 1855, 8vo, pp. 15. Printed for private circulation.

Scotland and Scotsmen in the Eighteenth Century. By Alexander Allardyce. Edinburgh, 1888, 8vo, 2 vols. History of the Burgh Schools of Scotland. By James Grant. London, 1876, 8vo.

Memoranda of the State of the Parochial Registers of Scotland. By William B. Turnbull. Edinburgh, 1849, 8vo.

The Origins of Invention. A Study of Industry among Primitive Peoples. By Otis T. Mason. London, 1895, 8vo.

Satan's Invisible World Discovered. By George Sinclair. Edinburgh, 1871, 8vo.

Ancient Lives of Scottish Saints. By Rev. W. M. Metcalfe. Paisley, 1895, Syo.

The Rude Stone Monuments of Ireland. By Col. W. G. Wood-Martin. Dublin, 1889, 8vo.

A Survey of the Antiquarian Remains on the Island of Innismurray. By W. F. Wakeman. Dublin, 1893, 8vo.

The Evil Eye: an Account of this Wide-spread Superstition. By T. T. Elworthy. London, 1895, 8vo.

There were also Exhibited :-

(1) By James Patten MacDougall of Gallanach,

Collection of Animal Bones, and Implements of Stone, Bronze or Brass, Iron and Pottery, from the refuse-heap at the base of Dun Fheurain, Gallanach, Argyllshire. [See the subsequent Communication by Dr Joseph Anderson.]

- (2) By James Curle, jun., F.S.A. Scot., Librarian.
- Six Early Iron-Age Brooches, from the Island of Gotland, Sweden. [See the subsequent Communication by Mr Jas, Curle.]
 - (3) By William M'Laren, Architect, Perth, through A. G. Reid, F.S.A. Scot.

Stone Cup, with handle of steatitic stone, 6\frac{3}{4} inches in total length, the hollow of the cup being 3 inches by 2\frac{3}{4} inches, and 1\frac{1}{4} inches in depth, the handle broken, the interior ornamented with a band of irregular oblique lines, apparently cut with a knife, found on the farm of Lochlane, near Crieff.

I.

NOTES ON THE CONTENTS OF A REFUSE-HEAP AT THE BASE OF THE FORTIFIED ROCK KNOWN AS DUN FHEURAIN AT GALLANACH, NEAR OBAN. Repersity Ex-avaired by Mr. J. PATTEN MACDOUGALL OF GALLANACH. BY JOSEPH ANDERSON, LL. D., ASSISTANT SECRETARY AND KEFFER OF THE WASEIN.

The object of this paper is to describe certain relies exhibited to the Society by Mr J. Patten MacDougall of Gallanach, Oban, Argyleshire. They consist partly of a large collection of animal remains, and partly of a collection of artificial objects, all found in the course of the excavation of a very large refuse-heap, accumulated at the base of an isolated stack of rock which seems to have been occupied as a prehistoric fort, and is known in the locality and shown on the Ordnance map as Dun Fheurain. This dun is referred to by Dr Christison in his description of the Duns and Forts of Lorne as follows:—

"Dun Fhenrain, pronounced by a native Alirea, with an emphasis on the first syllable, 100 yards north of the head of Port Lathoich, and 60 south of Kerrera Sound, is an irregularly shaped rock fortalice of conglomerate. The ascent on the only accessible side is by a tortnous, dangerous path, commencing on a tongue of grass, and continued over slippery rocks and grass. The only evidence of fortification is at the entrance, on each side of which stones have been piled to heighten the little natural chifs. The available space on the level top is only 63 by 45 feet."

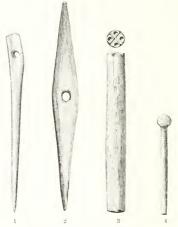
I have not seen the place, but Mr Patten MacDougall informs me that he is satisfied of the existence of some kind of defensive construction on the top of the rock, and that the refuse-heap below appears to be the accumulations of a long period of occupation of the fort. Some idea of the extent of this accumulation may be formed from the fact that, from first to last, somewhere about 800 cartloads of earth have been removed from the talus in which the remains occur, and that the refuse extends to a depth of between 15 and 20 feet from the upper surface of the talus, although at that depth the bones are almost completely decayed. The bulk of the bones and other remains sent to me for examination were found at a depth of about 10 feet, and are for the most part in fairly good preservation. The domestic animals represented appear to be the ox, horse, sheep or goat, and swine; the latter, however, judging from the very large size of the tusks, may in some cases have been the wild-boar. The red-deer is also abundantly represented, and the roebuck is present, though not in such numbers. The bones are all more or less broken and split up for culinary purposes. This breaking and splitting of the bones "for the marrow" or fat which they contain is a modern as well as an ancient custom, and has therefore no special significance as an indication of the time of the deposit. The manufactured objects found in the refuse-heap are not numerous, but they include articles of stone, hone, bronze (or brass), iron, and pottery.

Stone.—Several quern-stones were found, the most interesting of which is a broken upper stone, 131 inches in diameter, formed from a naturally rounded boulder of a greenish chloritic rock. The upper side presents the natural and irregularly rounded surface, the lower side being flattened, and the centre, which is 34 inches in thickness, pierced with a hole 14 inches in diameter, widening towards the upper surface into a cup-shaped orifice 4 inches in diameter, by which the corn was fed into the mill. There was apparently no provision for a birt being placed in the eye of the quern to enable it to revolve freely, and the upper stone must therefore have ridden upon the lower one, with or without a "washer" between them. The most remarkable feature of the stone, however, is that, after it was broken irregularly across, and thus rendered useless for grinding, the part of the flat grinding face left was converted into a mould, for what at first sight looked like a rather long and narrow tlat axe-head of bronze. The cavity of the mould, however, does not conform to the shape of a flat axe so closely as these founders' stone moulds usually do, and the probability is that it was a blacksmith's mould for fashioning a triangular crusic, by heating into it the red-hot plate of iron from which the shell of the crusic is formed. The cavity is 63 inches in length, 24 inches broad at the wide end, and 3 of an inch in depth, the bottom being quite flat.

Whetstone or burnisher of fine micaceous claystone, $3\frac{3}{4}$ inches in length by $\frac{3}{4}$ inch in breadth, and $\frac{1}{4}$ inch in thickness, finely polished by use. Bone.—Needle of bone (fig. 1), $3\frac{1}{8}$ inches in length, with flattened head, bent to one side, and a circular eye.

Needle of bone, $2\frac{1}{4}$ inches in length, with flattened head and circular eye.

Netting-needle (fig. 2), or similar implement of bone, 31 inches in



Bone Implements found at Gallanach.

length, slightly curved both ways in the same direction from the middle, where it is perforated by a circular eye, and tapering equally to both ends.

Stamp of bone (fig. 3), being a cylinder 23 inches in length by 1 inch

in diameter, with one end cut into a stamp formed like a cross, with a pellet in each of the four quarters. Similar stamps, but of larger size, have been found on Romano-Gaulish pottery.

Pin of bone (fig. 4), 13 inches in length, part of the point-end broken off, the shank straight and about \(\frac{1}{8} \) inch diameter, the head globular and \(\frac{1}{4} \) inch in diameter.

Broken portion of a bone pin or needle, 2 inches in length.

Bodkin or borer of bone, 3¼ inches in length, pointed at both ends, but thicker and less tapering towards the one end than the other.

Bodkin or borer of bone, 3½ inches in length, pointed at one end, the other end broken, and roughly flattened on the under side.

Portion of bodkin or bone tool, 3 inches in length, one end broken, the other of spatulate form.

Three teeth of a heckle or wool-comb, made of bone, 4 inches in length. They are quite slender, regularly rounded and tapering equally to very fine points, the bases square in section, and presenting the appearance of having been fixed in wood.

Two slender bones, $3\frac{1}{4}$ and $4\frac{1}{4}$ inches in length, the articular ends remaining, the shafts scraped down, the points broken away.

Brown or Brows,—Penannular ring, slightly oval in shape, 1 inch by $\frac{3}{4}$ inch in diameter, made of a rounded wire somewhat less than $\frac{1}{8}$ inch in diameter, expanding slightly towards the extremities, which are close together, but not joined.

Pin of bronze or brass (fig. 5), 3 inches in length and less than \(\) inch
in thickness, having the upper part bent at a right angle so as to project
about \(\) of an inch, and then bent to the left and upwards, so as to
form a complete circle, the end being again bent forward in the line of
the projecting part and cut short off. Except that it is made of a wire
of bronze bent into shape, this pin bears much resemblance to a pin of
iron (fig. 6) found in the Broch of the Laws, Monifieth, Forfarshire,
Another pin, with the upper part projecting forwards, and carrying an
ornamented circular head, found in the Broch of Bowermadden, Caithness,
is of the same type, but has been cast in a mould. A clay mould for
casting this form of pin was subsequently found in the Broch of Lingrow,
near Scapa, Orkney.

Pins with an open circular head, carried on a forward projection, are not uncommon both in Scotland and Ireland. They are, however, later than those of somewhat similar form, with discs carried in the same manner, which belong to the Bronze Age.

Iron.—Pin of iron, 3 inches in length, with part of an open circularly twisted loop at the end opposite the point. Along with it is







Fig. 6. Pin of iron, from Laws.

a flat slender bar of iron, $2\frac{1}{2}$ inches in length by $\frac{1}{4}$ inch in width, and somewhat less than $\frac{1}{8}$ inch in thickness, which is bent towards one end. Patting the two together, they suggest the broken remains of one of those bow-shaped fibulae of simple form with a spring-pin, the partial twist remaining in the head of the pin being part of the usual spiral spring. Fibulæ of this form in iron have not hitherto been found in

Scotland, so far as I am aware, but they occur in the South of England in association with remains of the period of the Roman occupation.

Flattened and slightly bent skewer-like pin of iron, $6\frac{1}{2}$ inches in length, with the butt-end rounded off to an expansion of $\frac{3}{4}$ inch in diameter, and tapering thence in a long curve on both sides to the point. The thickness is scarcely more than $\frac{1}{4}$ inch throughout.

Portion of an iron implement, 4 inches in length and 2 inches in diameter in the upper part, which has been turned over at the sides as if to form a socket, widening to 2½ inches at the lower part, which is flat. It may have been part of the sock of an old plough or a cus-chrom.

Portion of thin iron or steel, $1\frac{1}{2}$ inches in length and $1\frac{7}{8}$ inches in width, with straight sides and rounded end, the sides and ends having an equally fine edge, and the thickness in the middle not exceeding $\frac{1}{8}$ inch. It resembles nothing so much as the broken point-end of a large broad-bladed sword.

Portion, 9 inches in length, of the point-end of a double-edged swordblade, 1\frac{3}{5} inches wide at the upper end, tapering to 1 inch in width at the part where it begins to taper rapidly to an acutely shaped point, which is 1\frac{1}{2} inches in length, baying the angles at the junction with the line of the edge somewhat rounded.

Polivry.—Part of the upper portion of a vessel of unglazed pottery which has been at least 6 inches in diameter, and of somewhat globular bowl-shape, with a slightly constricted neck and everted rim, which shows the finger-marks of the potter beneath the turned-over part. It is made of a fine and rather saudy paste mixed with mica, and has not been thrown on the wheel, but moulded by hand. In some parts the outside retains the irregularly impressed markings of the stalks apparently of grasses, impressed when the clay was soft. It has been burned in an open fire, and in shape and general character it bears considerable resemblance to some of the pottery of the brochs.

Small triangular fragment (about 2 inches by I inch) of the upper part of a bowl-shaped vessel of the red Instrons ware commonly called Samian, showing remains of the characteristically rounded lip, and a peculiarly arranged pattern of fine linear ornamentation impressed on the surface underneath the rim. The same variety of ornamentation occurs on fragments of Samian ware found in London, and now in this Museum.

In regard to the antiquity of this deposit, there are no very definite indications to be derived from the general nature of its contents. It is clearly a refuse-heap or kitchen-midden, consisting chiefly of the shells of mollusca and the bones of animals that have been apparently consumed for food. The shell-fish are the common edible varieties of the neighbouring sea-shore, and the animals are the common domestic and wild animals of the district. Their bones have been utilised, however, for the manufacture of bone implements of various kinds, as well as for culinary purposes. Some of the long bones of the larger ruminants have been split up in a peculiar manner, which seems to imply an intention of using them as currying tools. Bones similarly split by removing the larger portion of one side are still used for cleaning skins by some tribes of North American Indians, and are said to be quite well adapted to their purpose. Portions of the split bones have also been manufactured into needles and pins, borers, &c., and the deer-horns are sawn or cut across, apparently for conversion into tools or handles of tools. Some of the rib-bones bear marks of cuts with keen-edged implements such as axes or knives. Some of the sawcuts on the deer-horns, however, are so rough and wide that they appear to have been done with a more clumsy instrument than a properly made metal saw. These indications are, however, too vague to possess any chronological value.

On the other hand, there are no stone implements of Stone Age types or that the deposit may be assigned to some period well within the Iron Age, so far at least as its manufactured relies are concerned. And this is certainly borne out by the few indications of correspondence with a definite period which the characteristics of some of these relies supply. If we take the pottery, for instance, we find that the small fragment of Samian ware limits the period to some time after the Roman invasion of Britain. This ware can scarcely be supposed to have come into Scotland before the time of the Roman occupation. On the other hand, it is plentifully found on almost all the Roman sites in Britain; and it occurs occasionally as far north as Caithness and Orkney, where it can hardly be supposed to have been carried by the Romans. Like other articles of luxury and display with which the influence of the Roman civilisation had familiarised the inhabitants of Britain, its possession was no doubt an object of ambition in places to which the Romans themselves had never penetrated, and where, though their power was neither felt nor feared, their merchandise was coveted for the profit it brought to the adventurous trader, and the local importance its possession conferred on the fortunate possessor. It has been found occasionally in the brochs of Caithness and Orkney, in circumstances which suggest that it was both rare and highly valued, the few pieces found rarely implying the presence of more than one vessel in the same broch, and the fragments themselves sometimes showing by old breaks clamped with lead that they were considered more than ordinarily precious. The other piece of pottery from the refuse-heap has also a considerable resemblance to broch pottery, and may well be of that period. It cannot, at all events, be classed with any variety of pottery known in this country to be of the Stone or Bronze Age, and must therefore be assigned either to the Iron Age or later. On the other hand, it is not wheel-made, and has not been glazed, so that it does not go with ordinary mediæval pottery.

The bronze and bone pins accord with forms in use of the same period. Bone pins with globular heads are plentiful among Romano-British remains, and also in the brochs. A pin of bronze, with an open circular head carried on a forward projection of the stalk, was found in one of the brochs of Caithness, and a clay mould for making the same form of pin in one of the Orkney brochs. The whetstone and the querns are not decisive of the period further than that their presence prevents any higher antiquity being assigned than that already given, although they might go well enough with a much later time of the occupation, which is thus shown by the relies to have lasted from some time in the early centuries of the Christian era till some time in the Middle Ages.

II.

SKOTLANDS RÍMUR. ICELANDIC BALLADS ON THE GOWRIE CONSPIRACY. By W. A. CRAIGIE, M.A., F.S.A. Scot.

The above rimur are found only in one MS, that numbered "146 a, 8vo" of the Arna-Magnaean Collection in the University Library, Copenhagen. This manuscript, now in an unbound and defective condition, is a huge collection of such poems, containing somewhere about 25,000 lines in all, and belongs to the first half of the 17th century. It is in the small and beautiful hand of Jón Finnsson of Flatey, the island in Broadfirth from which Bishop Brynjölf obtained the famous Flatey-book. In its present state it has 434 pages, but some of these are blank; the rimur being written straight on like prose, the number of lines to a page averages from 50 to 70, according to metre.

Of the 24 sets of rimur contained in the MS., the one here dealt with is the eleventh, beginning on page 210. It was the heading Skotlands rimur in the printed catalogue (vol. ii. p. 411) that drew my attention to them. The Icelander Jón Sigurdsson, in the catalogue of rimur compiled by him, thought that they related to the Gunpowder Plot, from noticing that King James VI. was the hero, but on perusal it soon became evident that the subject of them was the Gowrie Conspiracy. Though it could not be expected that they would throw any fresh light on this event,—the author indeed was simply following the Latin account published under royal sanction,1—it was interesting to find an Icelandic priest putting the story into verse so soon after its occurrence, the date of the rimur being probably about 1610.

From the middle of the 14th century down to the present day rémur have been the favourite popular poetry of Iceland. While they may be described as ballads, they differ from those of other countries in the greater exactness of the metre (alliteration being strictly observed, and combined with rhymes which are often very complex), in the use of beamings or circumlocutions after the style of the old Skaldic verse, and in the way in which they are connected in cycles. The oldest rimur, indeed, are single poems, but as a rule the story is told in several, which are nearly always in different metres: thus a modern poet, Benedikt Grandal, has lately published Gaunga-Hodfs rimur, 48 in number.

"Skotlands rimur" are six in all; and although some leaves are wanting after page 236 of the MS., it seems that only one line and a word has been bot. The total number of lines is thus 1762; the lengths of the individual rimur will be given below. The title is perhaps not original, as the heading in the MS. is simply

Rijmur sem Siera Einar Gudmundz Son hefur ordt

i.e., "Ballads, which Sir (=Reverend) Einar Gudmundsson has composed," and in the last verse (vi. 42) the story is called Skotta páttur.

According to the usual practice, each rima is preceded by some introductory verses, which, being originally addressed by the poet to his ady-love, are technically known as the mansing, or "love-song." In many cases the original idea has quite disappeared from the mansing, but a conventional trace is retained in some slight mention of a fair one to whom the rima is supposed to be addressed. To this class belong Sir Einar's, which are properly didactic moralisings, and lay special stress on the necessity of giving due respect to the clergy.

The rimur themselves, with their respective introductions, run as follows:—

1. Meansimpr of 30 verses: "Once I read a story which a doughty master had written in clever words. He tells of Scotland and its mighty King, and how two brothers plotted against him. Their attempt did not succeed, for the hand of the Lord protected him. Their fate is a warning to all who seek to deal falsely, for the traitor always comes to shame, and yet he goes on blindly. It beepan is always ill ended. This is shown by the fates of Julian the Apostate, killed by an arrow from heaven; Nero, whose own dogs tore him to death; Antiochus and Herod; Cyrus, who fell by a woman; the accusers of Daniel, whom the lions devoured. So must all other false men perish: the same God will visit the same God will visit the same God will visit the same sin with the same punishment, but it would be too long

to reckon up all the instances. My dull examples grow tedious to the dear maid, so I shall pour out the wine of song and go on with my story,"

The rima proper then tells in 72 verses how there was a King Jacop in Scotland, who had a queen named Anna, daughter of the King of Denmark. One time he went round his kingdom and came to Falkalawl. While at the chase one day he is met by Alexander, brother of the Earl of Goiver, who tells him the story of finding the strange man with the gold. The King refuses to have anything to do with it, and rides after the chase.

The metre is simple, as may be seen from verse 35 :-

Alexand hjét sá orfa grér, itran kvaddi stilli, Greifans bróðir af Góivér, gótt var þeirra í milli.

II. Headed Önnur skotsk. Mansöngr of 28 verses:—"Young folks ought to give heed to the matter of this poem, and not mind the metre of it. From youth upwards fear God and love knowledge; rise early; give no heed to spac-wives, who only want to get money. Practise good conduct and industrious habits. Be content with your own position in life. Saul and Usias lost their kingdom for interfering with religious matters. Never wish for any man to be disgraced. Arius tried to bring Athanasius into disrepute, but utterly failed. Such practices are common; men falsely accuse others, but Achitofel's ill counsels do not always succeed; the Lord can confound them, and envious men are paid back with full measure. This is proved by our story, if I can only get on with it."

Alexander sends his servant Andries to his brother to tell him that he may expect the King. The King finally decides to ride to Perth (Johannis Stadur, i. 36), accompanied by the Earl of Mar (Greifi af Mayr) and sixteen others, of whom Lennox is referred to, but not by name. Alexander tries to persuade him to dismiss these, without success; the King asks Lennox what his opinion of Alexander is. At Perth the Earl comes to meet the King, and leads him to his hall. (66 verses.)

The metre is one of three lines: verse 3 is-

Frá úngdom skaltu óttast Guð og elska fræði, Foður, móður, og frændur bæði ; Frægur er sa er brifnað mæði.

III. Managing of 17 verses: "Though the ring-decked maid might wish for a love-song, I have but little poetry from Odin. But a little seent of the fruit of song he gave me once: I have no need to be grateful for his generosity. Let those rejoice who have been more successful. Friendship is not shown to every man, and I was never good at winning favour with the great. True friendship is rare over all the land; most men look for some advantage, and are envious of all others who get wealth or fame. Seek not, then, to be praised by the world: disgrace and loss may follow. He that sees in secret will reward you, and He will come one day to sit in judgment. May I be able to see Him with joy, though my works are not so good as they might be. I have not the Mansings art to speak about the fair maid, but I must try to give her the third ballad now."

The entertainment of the King and his followers is then described.

After dinner Alexander leads off the King by himself through four
partments, locking each door behind him: in a small room they find an
armed man. Alexander threatens the King, who is defenceless, but
Christ protects him, and Alexander lays aside his weapon. The King
makes a long speech, promising him pardon for his attempt. (72
verses.)

The metre is difficult: verse 17 is-

Mêr er ei lent ¹ sû mansongs meant að mæla um sprundið ljósa, þriðja hatt fyrir þorna gátt þó mun eg verða að glósa.

IV. "The last ballad left the King in a strait: now we shall begin a new one." (3 verses.)

Alexander goes off to fetch his brother, after making the King promise to keep quiet. The armed man swears that he will do him no harm. Meanwhile the company have missed the King, and are told that he has ridden off, but the porter denies this. The Earl calls him

The italics show the internal rhymes.

liar, and, going away as if to make certain, comes back and says the King had gone long ago. The rest prepare to follow him. In the meantime Alexander returns and attacks the King, who defends himself as best he may. (57 verses.)

The metre is still more complex; verse 12 nms-

Min til þín er mjákust bón. mætur spjóta ¹ beitir, forðast morð og falskligt tjón við Froða saða veitir.

V. Headed Finita skotska. The mansongr contains 35 verses. cannot offer men a feast of poetry : little of that has Odin given me that will please fine folk or young maidens: rather it is for the old wife in her hut, yet I shall make a mansingr that will contain old instances worth hearing. Ahab had a wife, fair and false, who stirred him up against God and his servants, while she sheltered the wicked. For this they both perished miserably. She tried to kill Elias, but the Lord delivered him. Let all women then avoid evil, love peace, and follow virtue. 'Cold sometimes are women's counsels,' 2 a fact that men often forget. No one ought to do harm to a servant of God, but rather prize him highly, for God's anger is sometimes quick; therefore beware of opposing him. Prosperity often brings pride, but it is best to be moderate: a man may be ruddy with health to-day and dead to-morrow. When I see people proud of themselves, I think what folly it is to deck out the body and neglect the soul. Let the inner man be adorned with virtue: that is the best ornament. It is this that God will reward at the last day; therefore let all keep themselves free from deceit. He that lives a pure life becomes both king and clerk in God's kingdom. Here I end the mansingr, and turn again to the story,"

The King finally reaches the window, and calls out just as his men come past. They all turn back, and try to gain entrance to where he is.

Alexander is unable to wound the King, and is himself stabled thrice by Ramsay, who enters the room, and then thrown into the courtyard

¹ Metur : spjota and Froda : sida are half-rhymes, or skot-hending,

² An old proverb: Kold era krenna råð.

by the King. The armed man walks off, terribly afraid. The Earl in the courtyard had pretended he had heard no cry: he is now seized by "Tomas Eskinn," but manages to get away. The King's men rush up and find Alexander nearly dead, and despatch him, he protesting his innocence. The Earl comes up with five men and there is a fight at the chamber door, but "Christ gave the King's men strength and courage," and Ramsay runs the Earl through. Meanwhile the other 13 of the King's followers are breaking down the other deor. (52 verses.)

The metre is fairly simple: verse 40 is-

þegar að heyrðu harma sút Herra síns í garðinn út, inn um portið allir senn aptur snèru kóngsins menn.

VI. Mansangr of 5 verses: "Now we shall row the dwarf's beat (poetry) for the sixth time, if men and women will deign to hear. I am not very skilful at it, but I shall again essay it, if the maid will listen. Ohlin's ship (poetry) has but a slight breeze, yet I shall not give in until the song is ended."

The King and his men offer thanksgivings for his delivery. The town's folk assemble to average the Earl, and the tunual tasts four hour. The King has the leading men brought to him, and explains all. In the Earl's breast is found a piece of parchment covered with runes, on the removal of which his wounds bleed. The King and his men go to Falkland, and thence to Edinburgh: there is universal rejoicing at his escape. (37 verses.)

A fairly difficult metre : verse 38 is-

Firðar vitja Falka-lands og fara til Ædinborgar; þar réð sitja beitir brands, ber nú ei til sorgar,

The subjects of Icelandic rimur are mainly taken from the fictitious sagas, and comparatively few are based on historic incidents. It is therefore not a little curious to find such an event as the Gowrie Conspiracy selected for this purpose by the clerical poet, who has thus produced what is perhaps the only attempt to adorn with poetic colouring a highly romantic occurrence. What led Sir Einar to select his subject it would be useless to inquire; he probably thought it a good one both for the incidents and the lessons to be drawn from them. In point of technique his rimar are very fairly done; and, from their date and the place of their composition, are interesting as a literary curiosity.

III.

NOTES UPON THREE EARLY IRON AGE BROOCHES FROM THE ISLAND OF GOTLAND, SWEDEN. BY JAMES CURLE, JUN., W.S., F.S.A. Scot, Er Lond, Libeahla,

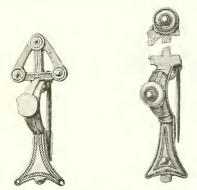
Throughout Europe, with the disappearance of national costume, there are gradually passing away many national forms of personal ornaments—the brooches, the clasps, or the necklaces which before the days of Savings Banks often represented the earnings of many years; and in their place the modern goldsmith displays an immense number of patterns brought together from every source inaginable, patterns which are centinually being changed or laid a-ide as fashion alters. We are apt to forget, as we watch the change, how in earlier times a race would identify itself with a buckle or a brooch form, or a series of ornament patterns, retaining them through the course of nany centuries. We are apt to forget how gradual was the process by which a new ornament was evolved from a simpler earlier form, or an old pattern changed and altered by a gradual degradation.

It were an easy matter to illustrate this; but my purpose is rather, with the knowledge of these facts before us, to endeavour to determine the position of three brooches of a somewhat rare type in the long series of ornaments which have come to us from the graves of the Iron Age people of the Island of Gotland.

I purchased in 1892 and 1893 in Wisby the two brooches, figs. 1 and
2. Both were described as having been found at Levide, in Gotland.
In neither case did I obtain information as to the objects, if any,
found in association with these brooches, which might have helped to
definitely fix their position. Both of them, as well as the third specimen,

to which I shall refer later, are practically of the same type, and I do not remember to have seen it in Stockholm, or elsewhere in Swedish collections.

The two broaches from Levide are of bronze, overlaid with thin plates of silver; they belong to the type often described as bow-shaped from its curved stem. They present so many features of resemblance that there can be little doubt that they belong to the same period. The lower end



Figs. 1, 2. Brooches from Levide, Gotland.

is expanded in the shape of a fish's tail. The upper end of the broach is fa-shioned in a peculiar triangular shape; fig. 2 being somewhat imperfect, this feature is not fully shown, but enough remains to prove that it possessed it. The highest part of the bow is ornamented with a circular enlargement. In fig. 1 the lower end is decorated with lines of niello, which has also been employed to ornament the triangular piece of the upper end. The ends of the base and the apex of this triangle, as also the bow, have been further ornamented with small round projections, now lost, but we may reconstruct these from the ornaments which remain in fig. 2. At the lower end of this brooch a small silver projection, or pin-head, forms the centre of a triangular space, edged with a gilt beaded wire; this is enclosed by a plain band of silver, and the whole brooch is edged with a beaded silver wire. The enlargement of the low carries a round, button-like ornament of silver, with a gilded centre, edged with a beaded wire; a button-like ornament of similar form,



Fig. 8. Brooch from Gotland, (1.)

which ornamented the apex of the triangle, is preserved; and doubtless ornaments of a similar kind were placed at the ends of the cross-bar which forms the base

Both brooches are of a somewhat complex form. We may safely infer that they have been evolved from a simpler type, and that they have had as their ancestor a brooch of which the fundamental parts were a simple curved stem and a cross-bar, terminated with two knobs of bronze, which was attached at right angles to one end. Round this bar the wire was wound which formed the pin. Such a brooch existed in Gotland. Fig. 3 represents a Gotlandie brooch which appears to occupy a position midway between this older, simuler form and

the type represented by the Levide brooches. It possesses, in common with them, an expansion of the lower end. It shows the same circular enlargement of the bow. The end of the stem has been prolonged at right angles to the cross-bar, and in one specimen of the same type, in my collection, this prolongation is of equal length with either of the cross-arms. All three are terminated by small bronze knobs cut in facets. Now, if we add two pieces of metal so as to join the end of the stem with the cross-bar, we practically arrive at the type of the Levide brooches. The object of the

¹ Hildebrand, Lidustrial Arts of Scandinavia, p. 22, fig. 10.

cross-bar, as I have already indicated, was to give a fastening to the pin, which was formed of a piece of wire, one end of which was wound round the bar, thus forming a spring. In fig. 3 it is employed in this way. The knobs at the end were originally designed to keep the bar in its place. On comparing figs, 3 and 1 we find that the cross-bar in the latter is merely an ornament; and that the terminal knobs having ceased to be a necessary part of its construction, their place is taken by circular ornaments. From this transition from an useful to an ornamental function we may infer that the Levide brooches are of a later type than tig. 3, and it is highly probable that they are directly developed from it. This evolution of the upper part of a fibula is by no means uncommon, and we may trace it in Central Europe as well as in the North. Not infrequently the upper part becomes a semicircular plate, from which, in the earlier examples, the terminal knobs of the stem and cross-bar still project; gradually these terminal projections disappear; and as the decorative skill of the metal-worker increases, this semicircular plate becomes rectangular, so as to afford wider scope for ornamental treatment. This latter phase of development is very marked in the later Gotlandic forms of the Teutonic bow-shaped fibula,

The type of brooch represented by fig. 3 is of frequent occurrence in Gotland; it belongs to the Early Iron Age, and to the period when the direct influence of Roman culture was still felt in Scandinavia.

The resemblance between this brooch and figs. I and 2 is so close that I do not suppose any long period clapsed between them; and this probability is further strengthened by the fact that the method of decoration which we see on the brooches, especially on fig. 2, is in itself characteristic of the period of Roman influence. At this period the distinct characteristics of Gotlandic art had not as yet asserted themselves, but rather there existed a close relation between the ornament patterns of the island and those of Denmark or the Scandinavian mainland.

It is in the Danish graves, as might be expected, that we find the greatest number of objects bearing the stamp of Roman culture, and it is among the ornaments taken from these graves that we find the method of decoration of the Levide brooches.

Hitdebrand, op. cit., p. 23.

The characteristics of the ornamentation of this period are the overlaying of surfaces with plates of gold and silver, the decoration of these plates with lines of beaded wire and small rosettes, or larger button-like ornaments, of which the centre is formed by a projecting pin-head of silver, surrounded by a band of metal with vertical flutings. In the Torsberg find we see this particular method of ornamentation employed on a shield-plate, in association with heads and figures which display a classic origin,1 Still more markedly do we see it in the large fibulae in the form of a syastica found at Nordrup 2 or Varpelev, 3 in Zeeland, in association with glass vessels of Greek or Roman origin, or at Sanderumgaard,4 in Fven. The Nordrup fibula has had seventeen of these button-like ornaments, the Varpelev fibula had twenty-one, that of Sanderumgaard has had twenty-nine, though many of them have been lost. These brooches may be considered as being the products of the northern art of the 4th century. One of them was found in a grave at Nyrup,5 in the north-west of Zeeland, with two gold solidi of the years 308-350 a.d., while in Norway a specimen was found at Aak Gryten. in Romsdal,6 with a barbaric imitation of a gold coin of Magnentius 350-353 A.D. In Sweden the same fibula is found in Skane,7 and the same button-like decoration occurs in a large tibula found in Wester Gotland,8 associated with a glass cup, usually an indication of the Roman period. It is this button-like decoration that we have in fig. 2; and when we find it associated with the same silver plating and beaded wire ornamentation as that employed in the syastica-shaped fibulæ, I think it may be assumed that both belong to the same period,

Having thus in a measure fixed the period of these brooches, let us pass to the third (fig. 4). I purchased this specimen in 1893 from a dealer in Stockholm who informed me that it had been found in Gotland. It is entirely of silver. The type is the same as those already described, only that the circular enlargement of the stem is awanting, and

- Mestorf, Voraeschichtliche Alterthümer aus Schleswig-Holstein, Fig. 672.
- 2 Petersen, Nordiske Fortidsminder, 1. Hefte, pl. ii. fig. 1.
- Memoires des Antiquaires du Nord, 1872-77.
- Nordiske Fortidsminder, I. Hefte, p. 17.
- 6 O. Rygh, Norske Oldsager, fig. 238.
- Montelius, Antiquités Suédois s, fig. 338.
- 8 Ibid., fig. 320.

the lower end of the brooch has been rounded off somewhat differently. There are not wanting signs, however, that it belongs to a rather later stage of development than figs. 1 and 2; the cross-bar has departed more from its primitive form. The two arms are no longer extended at right angles to the stem, and it is to be observed that the prolongation of the stem, which in fig. 1 bisects the triangle, has become in fig. 4 the orna-

mental centre-piece of what is really a foursided figure. The beaded lines have disappeared, and the button-like ornaments are cut out of the solid metal. In the lower part of the stem, and continued over the curve, we have, instead of the beaded lines or niclo decorations, an ornament which is derived from plants, and probably is a degraded representation of the leaves or tendrils of the acanthus or vine.

This ornament is characteristic of the early Northern type of bow-shaped brooches, which belong to the epoch of the great Teutonic migrations: indeed, it is scarcely to be found in Scandinavia associated with any other class of ornaments. These bowshaped brooches which display this method of ornamentation are not found in the Danish graves with the svastica-shaped brooches; they belong to a rather later period. Professor Montelius, in a recent chronological study of the Northern anti-



Fig. 4. Brooch from Gotland,

chronological study of the Northern antiquities prior to the coming of Christianity, has grouped together some of the most characteristic specimens of these brooches, and assigned them to the 5th century. The six specimens which he illustrates are all of them more highly developed than fig. 3, and 1 should feel inclined to attribute it to the earlier part of the 5th century. The brooches, figs. 1, 2, and 1, thus appear to me to exhibit the transition which must have

Scenska Fornminnesforeningens Tidskrift, vol. viii. p. 148.

taken place about the end of the 4th century, from the method of ornamentation based upon the imitation of filigree work characteristic of the ornaments from Torsberg, Varpelev, and other Danish cemeteries, to the ornament derived in a measure from classical designs, which, under the influence of the Teutonic migrations, found its way into the North.

How this plant ornament came to the North is in itself an interesting problem. As I have already indicated, it appears in Scandinavia only in connection with a single group of early brooches which are attributed to the 5th century. In all the specimens illustrated in which it occurs we note this point of similarity—the twining tendrils never break into leaves or flowers. I think we may infer from this that the Northern metal-worker did not seek, in using it, to reproduce any form of plant with which he was familiar, but rather that he had borrowed it from some foreign source, and copied it in ignorance of its signification. There can be little doubt that it came from the South. It is characteristic of the phase of art of the Teutonic migrations; and, in association with the bow-shaped fibula, we may trace it across Europe, from the Crimea to Hungary, through Southern and Western Germany to Scandinavia, or across France to England. Only we must note this difference, that whereas in the North the fibula is associated with a plant ornament in a state of degradation, we find it in the South side by side with ornaments bearing graceful representations of leaf and tendril.

This association doubtless resulted from the mingling of the traditions of the Byzantine or the Roman art with the arts of the barbarians, and it is at those points where the barbarian tribes must have come in contact with the higher civilisation that we find it best exemplified.

One of these points is the Crimea. When Dr Macpherson published his Antiquities of Kertch in 1857, the importance of accurate records of excavation was not so widely recognised as it is now, and we may search his pages in vain for any exact statement of the association of the various objects which he figures. He makes it, however, sufficiently plain that in the so-called Varangian tombs, rock-cut chambers, in themselves indicating an advanced civilisation, he found side by side this bow-shaped fibula, typical ornament of the barbarians, with delicate

¹ S. Muller, Die Thier-Ornamentik im Norden, p. 20.

vessels of glass, the forms of which are no less typical of Southern manufacture. And here we find figured among the personal ornaments a little buckle of bronze, now in the British Museum, which is ornamented with a well-executed leaf design.

In Hungary we meet with the same mingling of the two cultures: designs characteristic of the Kourgan finds of Southern Russia are mingled with patterns which display a classical origin; the bow-shaped fibula is found side by side with belt-classes, ornamented with vine or acauthus patterns. Not only do we find these designs carefully and gracefully executed, but beside them we find the degraded forms of the ornament, as we see it in fig. 4.

From the cemeteries of Kesthely in Hungary we have some admirable examples of belt-clasps and belt-mountings ornamented in this way with rich foliage patterns, or the strange griftin-like animals which form a connecting link with the Russian Kourgan finds.¹ Fig. 5° represents a belt-mounting from Kesthely, showing a well-executed leaf design. Beside it let us place a buckle found in 1882 at Szilagy-Somlyo³ near Grosswardein in Hungary (fig. 6). Comparing these, there can be no doubt that the origin of the two patterns is practically the same; but while in fig. 5 the leaves are comparatively well designed, in fig. 6 we have an unsuccessful attempt to reproduce them; the design has degenerated, and instead of leaves we have meaningless spirals, approaching to those with which the Gotland metal-worker has decorated his fibula. In fig. 7 ⁴ we have another belt-mounting from Kesthely, showing a degraded leaf pattern, much as we have it in tig. 4.

It would be unwise to assert that all these leaf patterns, which are characteristic of the epoch of the Teutonic migrations, had their origin in Hungary or the Crimea; the same process of copying and the degradation of a pattern can no doubt be traced further West, but I think it is probable that from Hungary the leaf patterns first found their way into the North. Dr Lipp, from the evidence of the coins found at

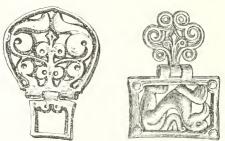
¹ Lipp, Die Graberfelder von Kesthely, Buda Pesth, 1885.

Lipp, op, cit., fig. 69.

^{*} Hampel, Der Goldfund von Nagy-Svent-Miklos, p. 175, fig 118.

⁴ Lipp, op. cit., fig. 187.

Kesthely, attributes the cemeteries there to the latter half of the 4th century. Now, we know from the evidence of coins and the close



Figs. 5 and 6. Buckle from Kesthely, and belt-mounting from Szilagy-Somlyo.

similarity of objects found in both countries that at this period Southern products were finding their way through Hungary into Denmark, and doubtless into Scandinavia. Dr Hildebrand, in his Arkeologiska



Fig. 7. Belt-mounting from Kesthely.

paralleler, has described some interesting finds which afford proof of this. It will be sufficient to cite one of these, ¹ In 1797 there was ¹ Mēnadsblad, 1872, p. 118. found at this very Szilagy-Somlyo, from whence comes the backle, 62, 6, a chain of golden wire, from which there hung a number of monature golden charms—a sword, a shield, an axe, a plough-share, and a vine-leaf; also a ball of rock topaz mounted in gold, and ornamented with two lions drinking from a circular vessel. Together with the find were twelve large gold medallions struck for the Emperors Maximinian, Constantius II., Valens, Gratian, and Valentinian, covering thus the period from 290–380 a.b.

In 1865 a find of coins and ornaments was made at Bangstrup, in Fyen: in all forty-seven gold pieces were recovered: the earliest was coined for the Emperor Trajan, the latest for Constantius II., thus embracing a period from 249-351 a.b.; and with the coins there was discovered a little golden vine-leaf, with its ring for suspension, and a small golden plate, also fitted with a loop, upon which we have again the same design of the two lions drinking from a cup: the execution is ruder than the mounting of the Szilagy-Somlyo topaz, but the common origin of both designs is unmistakable.

IV.

THE STONE CIRCLES OF THE STEWARTRY OF KIRKCUDBRIGHT. BY FRED. R. COLES, Core, Mem. Soc. Antiq. Scot.

In the Proceedings, vol. vii. p. 335, there is a passing mention of the existence of a Stone Circle on the farm of Nether Torrs, Kelton; and in vol. xiv. p. 284 the late Mr M'Diarmid describes the circle of stones at the Holm of Daltallachan, in Carsphairn. These are the only notices of remains of this kind in Kirkeudbrightshire hitherto brought before the Society.

In working out the distribution of the stone circles of any district, one is at the outset confronted with statements made by former observers, especially the compilers of the Statistical Accounts and the author of Culculonia, in whose minds a very clear conception of the use and purpose of such relies has crystallised itself, to the effect, in short, that all circles, the stones of which were conspicuously large and massive, especially if also tall in proportion to their breadth, were of necessity "Druidical temples."

The writers above mentioned seem not to have been aware of the existence of numerous more or less circular groups of stones, possessing, it is true, none of the characteristics named more conspicuously than other groups, and yet, for want of better evidence, fully as much entitled to claim the honour—if it be so—of that favourite appellation. And, as a corollary to this, neither do the same writers appear to have noted that many a half-rifled cairn is to this day surrounded at its base by lunge stones, which, if their interspaces were thoroughly cleared of smaller stones, would stand out upon many a bleak moorland as noble examples of stone circles.

It is a matter of conviction now, since working out this record of our stone circles, that had the cairns been left alone, in Galloway at least, the myth of "Drublical temple" had never gained adherents. For, as I shall presently show, there is scarcely one instance in the country bounded by the Nith and the Cree of a stone circle which at least may not have been the base-stones of a cairn.

My research leads me to classify these remains under three groups:— Circles wholly destroyed; Circles partially destroyed; and Circles still apparently complete.

1. Circles wholly destroyed.

The six examples once, on fairly authentic record, existent, have been made away with between the years 1790 and 1870 or thereabouts.

- (1) Near the "Roman Camp," Bombie, in the parish of Kirk-endbright. According to Dr Muter, the stones "were seized by some vandal for the building of Buckland Bridge."
- (2) Λ small Circle, also mentioned in N.S.A. as being some two hundred yards distant—direction not stated—from a mote on Boreland of Parton.
- (3) Near the manse of Kirkgunzeon; according to my informant, Rev. J. Gillespie, not now discoverable.
 - (4) Also in Kirkgunzeon, and stated in N.S.A. to be close to "the

site of the very large cairn at Glaisters." Now, at this spot there are three sites of what I took to be eairns. Two are neat and circular, the third oval and very much larger—evidently the site of the cairn mentioned in N.S.A. Had the compiler of the parochial notice really seen these remains, I do not doubt that all the three rings would have been described as the sites of cairns.

For better elucidation of this point, I append a plan (see fig. A.) of these three groups of stone remains. All these spaces are slightly hollow, deepening towards the centre; the large oval one is not clearly

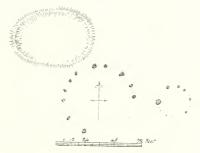


Fig. A. Glaisters.

marked out by stones, but its grassy rim is more defined than in the others. Its two diameters are 66 feet by 15 feet. On the north are of the middle circle are nine well-defined and large stones, lying as shown, and two others on the S.W. are. The spaces between are also stony, but these eleven stones are conspicuous. The diameter of this circle is 60 feet; and a level space of 21 feet separates it from the small circle, exactly its counterpart in general features, but with one very massive stone on its western are. This small circle is 60 yards

distant from Breckonside Burn, and the group is nearly two-thirds of a mile north of Glaisters farm, about 300 feet above sea-level.

(5) and (6) In Kirkbean; one on the farm of Airdrie; but though mentioned by Harper in Rambles in Galloway, Mr G. Arnott, in the Trans. Dis. and Gall. N. H. and Antiq. Soc., says, "at present no trace of these can be found, and tradition fails to give even a hint of their probable sites, for which a careful search was made during the Ordnance Survey of 1893,"

If the surveyors were searching for a circular group of prominent monoliths, disappointment was almost bound to follow. It is possible that these stones, both of which figure in the books as "Druid temples," are now overgrown by whin and briar, and would evade all but enthusiastic searching.

II. Circles partially destroyed.

(1) S.E. of Little Balmae, Kirkendbright. This was insufficiently



Fig. I. Drummore.

examined by Mr E. A. Hornel and myself in 1887, and found to consist of five granite boulders, all of them large, in situ, and the ridgy grassy hollows of five others-removed, no one can say when. In the centre of this nearly true circle, 90 feet in diameter, is a slight mound, possibly

(2) W. of Balmae House, and near the base of Knockshinnie, four stones in situ, all, I think, granite, and the sites of six others as distinctly observable as in the last instance. A mas-

sive stone lies outside the circle on the S. Diameter 72 feet.

(3) Drummore.—Close to the fine, massively ramparted fort there, and in a hollow between it and Drumber, there are four great stones, all that now remain of a circle of nine which was so far destroyed, much to the late Lord Selkirk's indignation, in 1867, by one Samuel Jolly, then tenant of the farm. The former completeness of this circle is attested



Fig. 2. Park of Tongland,

by Mr J. Blacklock, late of Kirkeudbright Academy, and Mr J. Watson of Twynholm, who supplied me with the above name and date. Of the

four stones now remaining (see the plan, fig. 1), that at the S.E. point is quite that and stands 2 feet 6 inches above ground; the S.W. one, rough and ridgy, is 2 feet high, while the others, also flat, are a bare 12 inches above ground. The 5 lost stones were very much higher,—about 5 feet above ground, say my informants. The probable diameter was about 80 or 90 feet. A line continued due 8, from the S.W. stone would bisect the N. ramparts of Drummore Fort. This circle is not named or shown on the O.M.

(4) Park, Tongland,—On a ridge of Tongland Hill, 325 feet above sea-level, and 208 yards W, of the steadings,



Fig. 3, Park of Tongland

there are three stones which at once arrest the eye—they are so you xxix,

unlike any others near by. Two of them (see fig. 2, sketch from the S.W., and C and B on the plan, fig. 3) are conspicuous by size and form C is 3 feet 5 inches high and in girth 5 feet 4 inches, B 3 feet 2 inches by 6 feet I inch in girth, and overhangs towards the central space 11½ inches. Xear the middle is a prostrate stone (A) measuring 4 feet 2 inches by 2 feet 10 inches. On examining the ground carefully, the remains of another stone S.E. of the centre and the grassy ridges of the sites of five others are clearly discernible, as shown in the plan. The two main diameters are 36 feet and 21 feet 6 inches. These stones are neither named nor drawn upon the O.M.

- (5) Balanman, Tomplanch.—In a field called the Cowpark, S.E. of the steadings, on a high hillock, is a grassy rim full of embedded stones, not mentioned on the O.M., nor, so far as I know, definitely claimed as a stone circle, but as much entitled to that designation as many others. Its diameter is 44 feet; the stones are mostly small and irregularly placed; it is evidently the base of a caim.
- (6) Torrs, Kellon, at the eastern base of Erne Hill, about 215 feet above sea-level, and distant from Ernespie House only ith of a mile. The O.M. names it "Druidical circle," and shows three stones. At the date of my visit to the spot in 1891 there were only two stones, and there were no further indications to suggest the sites of the others.
- (7) Torkivra, Kirkgunzeon.—Between the railway and the road, about 300 yards E. of the fortlet at Torkirra, is an irregular circle of large granite boulders, the stones themselves being very irregularly placed, and the contour broadly oval, the curved sides bounded on the S. by a braight one. This site, which was but cursorily examined during a long day's exploration of the forts, measures some 84 feet across its greatest width. It does not appear on the maps, nor is it called either a stone circle or a cairn, but it is most obviously the remnant of a good-sized cairn.
- (8) High Aucheularie, Annoth.—There is here, at 500 feet above sealevel, and about 230 yards E. of Auchenlarie Burn, one mile from the sea, a well-defined grassy rim, circular and stony, evidently the outer vestiges of a cairn. Its diameter is 36 feet. On its N. and N.E. are five earthfast stones, the highest of which is 4 feet 10 inches above ground (B in

the plan, fig. 4), the next is 3 feet 8 inches, the third 3 feet, and the other two prostrate. Measured in the same direction, the interspaces are 12, 18, 12, and 6 feet respectively. At a point 24 feet due X. of stone C is a stone of about the same size, and at 27 feet S.S.W. of the tallest stone stands a tall, tapering stone 4 feet 6 inches. To the S. of this same stone B, at a distance of 51 feet, there juts out a piece of rock bearing

the cup- and ring-markings described and figured in my record for Kirkcudbrightshire.¹

These stones are shown on the O.M. under the usual name of "Druidical circle,"

III. CIRCLES APPARENTLY COMPLETE.

(1) Glemquicken Moor, — The rather small circle here extant is one of three named and drawn on the O.M. It is exactly \(\frac{1}{2}\) mile W.S.W. of Cairnywanie: N.W. of it 217 yards is the site of a second, and beyond that, in the same line, about 60 yards, the site of a third; S.W. by W., 217 yards off, is an



Fig. 4. High Auchenlarie.

exposed and empty kist-vaen. This last I have seen, but the two stonecircle sites must have become totally obliterated since the Survey, as there is no trace of them now. The site of the one remaining is a grassy level, 522 feet above sea, $\frac{3}{4}$ of a mile S.S.W. of the farm, and 118 yards east of the Englishman's Burn, in a rectangular space cut off by its current. There is no trace of a raised central mound nor of an earthen ridge in the line of the stones, which are twenty-eight in number on the circumference. These are nearly all rather rough water-worn boulders; none of them is large, and all are quite low, the two highest

¹ See Proceedings, vol. xxix. p. 90.

(shown on the plan shaded, fig. 5) being but 3 feet above ground, and the only stones that are narrow and slightly rectangular. The stones are set with evident attempt at regularity, one markedly wide space of 8 feet intervening between the two on the S.W. are, and two very narrow spaces dividing the north stone from the north-east one and the fourth and lifth stones on the same are. The circumference taken through the



Fig. 5. Glenquicken Moor,

centre of the stones is 225 feet. The diameters also are unusually equal:—

N.	and	S.	centre	to centr	e of stones	51	fee
E.	.,	W.			.,	53	- 11
N.W.	,,	S.E.	-5		,	51	
$X \to$		sw				5.0	

The whole interior area is covered with smallish stones, five of which (shown in plan), though considerably larger and heavier than the rest, are easily moved, and even raised up,—a task impossible of performance by any man single-handed with any of the earth-fast stones of the circumference. The centre of the circle is occupied by a tall, massive granite boulder, 6 feet high by 12 feet in girth.

(2) Hills, Lochrutton,—Drawn on the O.M. as a circle of nine stones, on the 500 foot contour-line, I mile almost due S. of Cullochan Castle, and nearly I mile S.W. of Castle Hill Mote; it is named "Pruidlied circle, supposed." At the date of the N.S.A. there were nine.

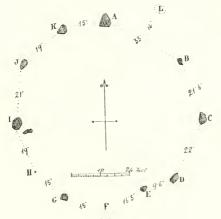


Fig. 6. Hills, Lochrutton.

stones, though the circle went by the name of The Seven Grey Stanes. Probably it had some connection, now forgotten, with The Grey Stane in Dumfries. Some of its stones seem to have been moved about, and one other removed altogether, and, 1 think, somewhat recently, as its site (see F in the plan, fig. 6) clearly bears the shape and impression of a large stone materially different from the small nondescript hollow of II, which is supposed to be the site of another stone, and also quit markedly distinct in character from the rudely oval hollow, some 15 feet within the circumference, and which is probably the result of a little digging done here some years ago by Canon Atkinson. Outside the circle at L there is another probable site of a stone. The two main diameters are 81 feet N. and S. and 78 E. and W. The interspaces measured in line with the width of the stones gives a circumference of 232 feet. None of the stones stand more than about 3 feet above ground. The circle occupies the flat summit of a slightly raised artificial mound, and there is no trace of any former accumulation of small stones within the space enclosed by the stones.

A further interest attaches to this circle from the fact of two of its stones bearing what I believe are genuine artificial cup-marks. These are found on the east stone (a flattish "whin," much smoother than the majority), and are three in number, in a perfectly straight line, 10 inches long, the direction being east and west. These cup-marks are the smallest known to me in the district—scarcely more than half an inch wide.

(3) Holm of Dallallocham.—Close to the farm, almost midway between the Water of Deugh and Carsphairn Water, at the base of a mound called Holm Moat. It is dotted on the O.M. as a true circle at a point a little over 600 feet above sea-level, and is named "Druidical circle, supposed." Daltallochan Cairn is about a third of a mile away on the N.E.

The circle consists of thirteen stones, irregularly placed around the summit of a slight elevation. Three of the stones (M \(\) \(\) \) B on the plan, fig. 8) lie in a nearly straight line, the others forming a deep semi-oval. They vary much in size: but only the two which mark the limits of the greatest diameter (M E) can compare with the stones in, e.g., Holywood Circle. My sketch, exactly copied from that taken on the spot (see fig. 7) shows at a glance this variety in size of the stones on the S.E. are. The circumference measured through the centres of the stones is 210 feet. The greatest diameter, centre to centre of stones M and E, is 74

feet; its contrary diameter is 63 feet; the N, and S, diameter, A to II, and the E, and W., D to L, are 65 feet each.



(4) Cauldside, Annoth, almost in contact with the base of a cairn. It consists of fourteen stones, ten of which are rather thin whinstone dags

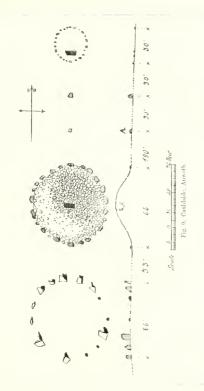
set up on edge, and, with the four others, which are small boulders, forming an almost exact circle 66 feet in diamete. See fig. 9. The diagram has been compressed so that the space N. of the carin-base to a solitary stone (Λ) represents on the ground 180 feet. Thirty feet further north is a second stone, and again 30 feet is the edge of the small cairn-site.¹

(5a) Lairdmannach, Tongland,—This, the Park Circle, and the circle at Glenquicken are the only three examples having a central monolith. It is drawn on the O.M. on the 400 foot contour-line as a circle of five stones with a sixth in the centre; and in the N.S.A., Rev. D. S. Williamson writes (Dec. 1843), "there are eleven stones, with a twelfth in the centre, the summits of them all just appearing at the surface of the ground."

This circle, which stands close to a cairn which is S.W. by W. of the farm of Upper Lairdmannach a little over half a mile, now consists of ten stones, all smallish granite boulders, equidistant from each other, on a circumference of only 63 feet; and its central stone, also of granite, has fallen prostrate into the peaty ground which year by year is covering the stones and rendering their identification a very difficult matter. The shape and size of the ten stones cannot be determined, as only a portion about the size of one's head is visible; but the monolith measures 5 feet 6 inches in length by 3 feet broad, and rests 14 inches above ground.

- (5h) Lairdmannach.—At 78 yards N.E. of the base of the neighbouring cairn is a group of stones, which I take to be part of a very small stone circle, the diameter of which is only 12 feet.
- (6) Lochrinnie,—This very peculiar group occupies the summit of a hill in the very extreme north-eastern corner of the Stewartry, midway between Lochrinnie Farm and Lochrinnie Mote, about 700 feet above

¹ This group of remains at Caulbiside forms a good illustration of the point I have endeavoured to prove. Originally, there is no reason to doubt, all the three circular sites were cairus. We have no testimony proving the date at which the site, now called Stone Circle, on the south, was cleared of its heap of stones; but the small ring of stones on the N, was, up to forty years ago, a csiru, a dike close at hand having absorbed its stones; while it is quite clear that, should the same fate befull the great cairn in the centre, we should then have three stone circles.



sea-level, and on the north of the Blackmark Burn, which here joins the Castlefern Water, forming the boundary between the Stewartry and Dumfriesshire.

The holed stone (see H in the plan, fig. 10) has been placed on the



erown of this hill, the sides of which for some distance descend very gradually; and, at the ten points shown, there are stones forming an irregular circle, the greatest diameters of which are 200 feet by 172 feet, the N.W. and S.E. being 167 feet, the circumference 588 feet.¹

None of the stones are prominent, some only just showing above the surface of the ground. The holed stone, a thin broad slab of hard "blue whin," stands very nearly on the E. and W. diameter. Its dimensions are 3 feet 2 inches by 2 feet 6 inches by 6 inches. The hole measures about 5 inches in width. We were told by the old

¹ This diagram is drawn to a scale of 62 feet to the inch; but the stones are purposely shown on double that scale. The circle was measured by Mr T. R. Bruce and myself in radii with the holed stone as centre.

gardener at Craigmuie (Thomas Todd, who remembers the stone when perfect) that the upper part had been wantonly destroyed (see fig. 11). Within the circumference, at a point 63 feet X.W. of the holed stone, lies a large flat stone, about 5 feet by 2 feet, and 30 feet W. of it is a small, low heap of stones (B and S on Plan).

During my earlier antiquarian rambles in Galloway, many other



Fig. 11. Holed Stone.

partly circular relics, of much the same character as these at present described, were casually observed, especially in the moorland districts of Tongland, Girthen, and Anwoth; but in the following summary I have placed the names and characteristics of the remains now passed in review, in the hope of its being useful as a record of ancient structures only too rapidly disappearing from the face of the earth.

SUMMARY OF STONE CIRCLES.

I. CIRCLES WHOLLY DESTROYED.

1.	Near "Roman Camp," Bombie	Kirkeudbright.
2.	Boreland Mote, Parton.	
3.	Kirkgunzeon Manse.	
4.	Glaisters, Kirkgunzeon.	
5.	Airdrie, Kirkbean.	
6.	In Kirkbean.	

11. CIRCLES PARTIALLY DESTROYED,

				Diameters.
1.	S.E. of Little Balmae, Kirker	adbright	,	90 × 90 feet.
2.	W. of Balmae House,	,,		72×72 ,
	Drummore,	**		? 90×90 "
4.	Park, Tongland (with central	l stone),		36 × 21 ft, 6 in.
5.	Balannan, ,, .			44×44 feet.
G.	Torrs, Kelton,			?
7.	Torkirra, Kirkgunzeon,			84×74 "
8.	High Auchenlarie, Anwoth,			36×36 ,,

111. CIRCLES APPARENTLY COMPLETE.

1. Glenquicken Moor, Kirkmabreck (with central stor	ne),	53×51 fe	et.
2. Hills, Lochrutton,		81×78	
 Holm of Daltallechan, Carsphairn, 		74×63	
4a, Cauldside, Anwoth,		66×66	,,
4h. ,,		30×30	11
 Lairdmannach, Tongland (with central stone), 		21×21	22
5h, ., .,		12×12	,,
Near Lochrinnie Mote, Dalry (with holed stone),		200×172	11

V.

NOTES ON THE "ROMAN ROADS" OF THE ONE-INCH ORDNANCE MAP OF SCOTLAND. By JAMES MACDONALD, LL.D., Vice-Presi-DENT.

4. The Roxburghshire Roads.

From the English Border two old roads enter Roxburghshire, named on the map Watling Street and the Wheel Causeway. The former is regarded by writers on the antiquities of the district as a continuation of the Northumberland road of the same name; the latter, of the Cumberland Maiden Way. Both are popularly believed to be Roman.

1. Watling Street. - About a mile after crossing the sources of the Coquet at Chew Green, this old road leaves English soil and proceeds in a north-westerly direction across the Cheviot Hills. In penetrating this range its course winds considerably, as it has to accommodate itself to the nature of the ground. Its breadth varies from 6 to 10 or more feet. Its track, which has been skilfully chosen, is level and covered with grass, having sometimes low mounds bounding it on either side.

A mile or two further on, and at some distance from the road on the right, is the remarkable Mote or Fort of Buchtrig. On the left, a little in advance, is Woden Law (1398 feet), crowned by two closely adjoining rectilinear forts, which are defended on three sides by triple ramparts, but are open on the west-the side most distant from the hollow in which the road runs. The traveller has now reached a pass in the last of the Cheviot heights. Suddenly the southern Scottish uplands burst on his view. To the north-west the three conical summits of the Eildon Hills are seen rising abruptly from the plain. Further west, and more distant, are the peaks of the Ettrick Hills; north of the Eildons, but still farther away, are the Lammermoors; while the picture is filled up by that succession of low, rounded hills and fertile vales, varied by the presence of intrusive masses of trap, such as the Dunion, near Jedburgh, that give to these uplands a character of their own,

At the end of the pass, on the right, is the "Streethouse" of the Ordnance Map, once a shepherd's dwelling, but now bare, roofless walls. Thence there is a rapid descent towards the Kale Water, which is crossed just below Towford schoolhouse. Here the ground begins again to rise, The road then bends somewhat to the north. Soon it passes, on the left, a large rectilinear enclosure, within which is a smaller one, both having traverses "in front of the openings or gates." Near them stood the "Streethouse" of Roy's plate, but it has long since disappeared. The larger camp is of the same type as that on Torwood Moor, Dumfriesshire. Following the road, which here separates the parishes of Oxnam and Hownam and is still in use, though kept in bad repair, we gradually ascend to Pennymuir, where large sheep-fairs were formerly held. So far, there has been nothing to distinguish our road from old or partially used roads in other parts of the country. Whether the Romans had any share in its construction must depend on considerations apart from the appearance it now presents.

From Pennymuir to Cunzierton Hill and onwards to the Oxnam and Hownam road—a distance of about 3 miles—the traveller continues to ascend in the same direction as before. Here the road, now all but disused, is of greater breadth than at Towford. Though its course is not that of a straight line, the windings are not very marked. The roadway is much cut up and in wet seasons parts of it are swampy, especially just above Pennymuir. On the left it is fenced by a stone dyke, while the right is unprotected at first, except by a slight mound here and there. The whole ridge along which it runs is uncultivated, and pastured by sheep. Rather more than half-way between Pennymuir and Cunzierton Hill, on the top of which is a British fort, we pass a so-called Druidical circle on the right, and further on a smaller one on the left. North of Cunzierton Hill the character of the road continues the same. A wire fence runs on the right for some distance, replaced, where the footpath to Chatto branches off, by a stone dyke. At intervals here and there it is raised in the centre by what seems to be a line of large stones. In one or

¹ To Mr J. W. Thomson, lately schoolmaster there, I am indebted for much information regarding the antiquities and place-names of Roxburghshire,

² Military Antiquities of the Romans in North Britain, plate xxii.

³ Proceedings of the Soc. of Antiq. of Scotland, vol. xxviii. p. 308.

two places they have the appearance of having been fitted into each other artificially. By-and-by it may be observed that there are similar ridges or layers of the same kind elsewhere than in the centre, and even beyond the line of road altogether, as if the stones are either natural to the soil, or else decayed portions of the uptilted rock still in situ. Along the sides of the roadway small pits are to be seen, from which material had no doubt been taken to repair it at the time it was in use; but most of this has since been washed out of the hollows that now render its surface uneven. Shortly before reaching the Hownam road, its contour becomes more distinctly and somewhat regularly rounded. But, as in the case of the ridge of stones already noticed, the curve is now in the centre, now towards one side, now towards another, -evidence, apparently, that the roundness of surface is due to the operation of some natural causes, and not to the hand of man. At one spot, indeed, the raised centre has been exposed, to some depth, by the unceasing action of a tiny rill, and shown to be solid rock. It would thus seem as if the present hollows had been softer parts of out-cropping strata on which the road had been laid down, which, worn away by the rains and frosts of winter, were left unfilled after the road ceased to be used for traffic; while the higher portions, whether occurring in the centre or at either side, are of a texture hard enough to withstand better and longer these destructive agencies. For some time the roadway has been from 20 to 24 feet wide.

On reaching the spot where the road to Hownam, already mentioned, branches off to the right, we turn somewhat sharply to the left and find that this road-that leading from Jedburgh through Oxnam to Hownam-occupies for about 2 miles a portion of the track of "Watling Street." At first the latter bends slightly to the left, running thereafter due W.N.W. to Jedfoot Bridge, a distance of 7 or 8 miles. Its surface, now grassy and almost level, is separated on both sides from well-cultivated fields by mounds, ditches and sometimes rows of trees. This marked change of scene is easily accounted for, "Watling Street," not far from its first contact with the Hownam road, leaves the comparatively barren Greywake of the Cheviot range and enters a fertile tract of country, the under-

lying rock of which is the more kindly Old Red Sandstone, Smiling fields accordingly succeed the less luxurious herbage of the hilly uplands. Here portions of the road are still made use of by the farmers through whose land it runs, and at whose hands it receives occasional repairs. In constructing it, the ground had, where necessary, been levelled, and a shallow trench sunk in it to receive stones or gravel. In the middle, extending to a breadth of 18 feet or so, is a track for horses and cattle, lined with a broad margin of grass on either side. To keep the whole level seems to have been the chief object of those who last used it. There are no kerbstones, no pavement of flat stones, no raised line of stones set edgeways in the centre. It has been said, indeed, that the roadway was once paved. but that the stones were long since removed and used for building. Of this, however, there is not a shadow of proof. That, in a district abounding in stone, it should have been everywhere completely denuded in this way of a stony covering, may be conceivable, but seems highly improbable. On the portions of it still in use for farm purposes a flattish stone may occasionally be seen filling some hole made in the track, though unbroken stones or metal is oftener now used in doing so. Its great breadth, and the care with which its sides had at one time been fenced, deserve attention. In addition to a normal breadth of 24 feet, often exceeded, there is sometimes a ditch 6 feet wide on one side of the road and a mound 12 feet broad at the base on the other,-making, in all, a breadth of 42 feet. In some places there is a ditch inside this mound, and a mound outside the opposite ditch, so that the roadway has a ditch and mound on either side. This may be seen at the top of the ridge near Renniston, where the descent to Oxnam Water begins; and such was probably at one time its form wherever it passed through highly cultivated soil. Its almost perfect straightness and its borders of trees render the "Roman" road from Shibden Hill to Jedfoot a very prominent feature in the landscape of that part of Roxburghshire.

Just before the Oxnam is crossed, there is a bluff of some extent, formed by the junction of a small rivulet with that stream. It is steep on the side next the latter, but less so where it abuts on the "Roman" road. On one of the remaining sides is a field, of which it was till lately a part. Here is a slight depression which may mark what was once a ditch. Along the fourth side runs the Cappuck road. The bluff is on the farm of Cape Hope or Cappuck, belonging to the Marquis of Lothian. When it was being ploughed, eight years ago, foundations of buildings were discovered. Excavations, then ordered by Lord Lothian, were carried out under the supervision of Mr Walter Luidlaw, Jedburgh Abbey, of which an account, with plan, has been published. The lower courses of walls, supported by buttresses, were revealed; a portion of a Roman inscribed stone was found, together with some articles of Roman manufacture, chiefly pottery. These, with other indications, place it beyond doubt that Cappuck had been the site of a Roman or a Romano-British settlement, for a longer or shorter period. No trace of a surrounding rampart or wall seems to have been got, but the excavations were only partial, a great part of the station still remaining unexplored.

From Oxnam ford the road again rises till it reaches the watershed between that river and the Jed. During the lirst part of its descent hence it is little used, even by the neighbouring farmers, and is consequently so much cut by the rains that in wet weather it is hardly passable even on foot. As it approaches Jedfoot railway station, however, it passes into a road in daily use. After this, "Watling Street" is lost for a time: but it is evident that it had passed through the grounds of Mount Teviot, one of the seats of the Marquis of Lothian, for two miles further on it reappears a little to the north-west of Ancrum House, running in exactly the same direction as it did from Shibden Hill to Jedfoot. Planted over with trees the road is again a conspicuous object. "For three miles and a half of this part of its course it forms the boundary between the parishes of Ancrum and Maxton," "disappearing in the present Ancrum and St Boswell's road, which keeps for a mile or two the same straight course. Beyond this, no traces of it are now visible

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Proceedings of the Berwickshire Naturalists' Club for 1893, pp. 382-9.

[•] In traversing the road last summer, I was favoured with the use of a Ms. "Journal of a walking tour over the line of the Roxburghshire Walting Street," by Mr Francis Lynn, F.S.A. Scott, Galashiels, which I found of great service.

Jeffrey's History and Antiquities of Roxburghshire, vol. i. p. 231.

in Roxburghshire; but it must have passed northwards between the Eildon Hills and the Tweed, crossing the latter into Berwickshire at Newstead, or, according to others, at Gattonside. Near Newstead, numerous Roman remains have been found on what there are good grounds for believing was the site of a Roman station.¹

As regards the history of the road, nothing can be founded on the name "Watling Street," applied to it by Horsley and others, as well as on the Ordnance Map. This epithet is, I believe, an importation from the other side of the Border, which, except from books, is quite unknown in Roxburghshire. Even in England, Watling Street is by no means synonymous with Roman road. It is a term of Anglo-Saxon origin, and of somewhat uncertain meaning; but the breadth of its application may be gathered from the fact of its being used by Chaucer of the Milky Way.

There are, however, circumstances which indicate that the route our road takes was that by which the Romans generally entered Scotland, and that part at least of its course, if not the whole, may have been laid down by them.

- (1) On the Northumberland Watling Street, leading from the Southern Wall towards the Cheviots, are two Roman stations—Habitaneum and Bremenium. Their position seems to show that they were intended to guard the great Southern Wall, as well as to protect the road traversed by the legionaries when they nearched northwards beyond the Cheviots. At York, as the military capital of the whole province, such expeditions would be usually organised; and communication with the seat of government in that city, would be kept up by the most direct route. There is thus every reason to believe that when the Romans invaded North Britain, they, for the most part, entered it by the east, and not the west side of the island. Although the road from Chew Green—the terminus of the Northumberland Watling Street—to Shibden Hill affords no evidence by its construction that it is a Roman work, and although no Roman antiquities have been found along it, yet we are not entitled, for
- ¹ For notices of the Roman antiquities discovered here, see various papers by the late Dr John Alex. Smith in the Proceedings of the Society of Antiquaries of Sectland, vol. i, pp. 28–38, 213–7; vol. v. pp. 107–8, 360–2; vol. ix. pp. 588–9, &c.

such reasons, to deny that the Romans used it, or even made it, if other facts seem to point to a different conclusion.

(2) From Shibden Hill to Melrose, the case for its having not only been used but even laid down by the Romans is much stronger. The markedly direct line in which it runs for a long distance differentiates it from all other old roads in Scotland; and the Roman stations of Cappuck on the Oxnam, and Newstead or Red Abbey near Melrose, appear to be satisfactory proof that this portion of the road had been planned by Roman engineers at a time when the Romans were masters of the country. For we can scarcely conceive of their having a line of stations that were not connected by a road with one another, and with some base of operations whence reinforcements could be drawn.

At the same time, it is equally true that the name "Drove Read," which was universally applied to it before the days of Horsley, and still the only one known to the unsophisticated shepherds of the Cheviots, denotes the purpose which it chiefly served during the sixteenth, the seventeenth, and the first half of the eighteenth century, and may account for some of the peculiarities of construction to which attention has been drawn. The original road was perhaps the track (18 feet wide) to which reference is made above, while the additional and abnormal extension at each side, covered with grass, was intended to afford the means of sustemance to cattle and sheep without their having to stray into the adjoining fields, from which the mounds and ditches were meant to exclude them. From Shiblen Hill southwards, where the land was moor or natural pasture of no great value, such precautions were not required.

2. The Wheel Causeway.—Jeffrey is the authority to whom we are chiefly indebted for a notice of this road. He considers it to be a continuation of the English "Maiden Way," a view shared by archaelogists south of the Border, who describe the course of "this great military way" as running from Overborough in Lancashire to Beweastle and thence onwards to Scotland, Jeffrey writes: "It...enters Scotlish ground at Deadwater, when it assumes the name of

¹ History of Rochurghshire, vol. i. p. 217 ff.

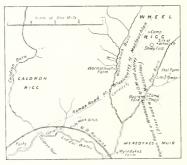
the Wheel Causeway. The appearance of the road between the wall and Beweastle [i.e., during part of its course through England] is described as being above 21 feet broad, and made with sandstone. The stones are laid on their edges, and generally in the centre; on the sides they are found lying tlat. Where streams of water cross the path, they are carried below it by means of culverts built on the sides, and covered with large flags. It presents the same features in this district [i.e., in S. Roxburghshire] where it has not been destroyed by the farmers converting the stones with which it is paved into fences for sheep walks," Then follows an account of the line taken by the road, which is said to cross the Peel Burn at a point where there is a strong fort. Turning to the right, it runs along the ridge known as the Wheel Rigg, passing close by the site of the old Wheel Church and making for the summit of Needslaw. Jeffrey is perfectly clear and consistent in what he says. He speaks only of one road-the Wheel Causeway, which he believes to be Roman, and as to the line of which, in this part of its course, he has no manner of doubt. His view is the same as that adopted in the Ordnance Map, which, indeed, furnishes the best possible illustration of his text.

In Maclauchlan's Notes on Camps in Northumberland (London, 1867, privately printed) we get a somewhat different account of the matter. The writer's main interest is in camps, and his reference to the road is more or less incidental. Probably this accounts for the want of clearness in what he says. On one point there can be no doubt. The road which Jeffrey calls the Wheel Causeway, Maclauchlan calls "the Prove Road." The description he gives of the line of this "Drove Road" corresponds exactly to that followed by the "Roman Road" of Jeffrey and the Ordnance Map. Our two authorities, then, are in agreement as to the course of this road, but they differ entirely as to its early history.

Maclauchlan, however, goes farther. At first, indeed, he is somewhat cantious about admitting the Romans to this district at all. "It is said that the Romans had a way from Jedburgh, over the Wheel Causeway, into both Northumberland and Cumberland. Part of the line over the Wheel Rigg looks like it; and there are remains of a small square camp on the side of the way, which possibly has been used by them as a post of observation. But, Roman or not, the line of communication, up by the sources of the Jed, and down by those of the Liddel and Tyne, could not have escaped the notice of the very early inhabitants; so that, for the passage of either people or cattle, the course of the Wheel Causeway must have been very early established as a Drove Road " (p. 56). So far there is no inconsistency. The "line over the Wheel Rigg" is apparently the Wheel Causeway, a Drove road, and a possible Roman road.

In a footnote to the paragraph just quoted a new view is put forward. There we are told that the author had examined the ground in company with a friend. They considered that they "could trace the line of Roman Road, about 80 yards on the west of the present Drove Road, when it reaches the Rigg from Bagrawford. It bends slightly to the westward, and appeared to us as crossing the Wormscleugh Burn. We came to this conclusion from seeing some stones on each side of the brook in the line we were examining. But, beyond this, we could trace nothing satisfactorily; though, if not Roman, there is a probability that a Drove or other road passed this way to the camps at Caldron Foot," In further references in his text, this theory of a second road is tacitly adopted. Jeffrey's road is definitely pronounced to be "an ancient British Way," and is called the Drove Road (p. 57). The (Maclauchlan) Roman Way is apparently identified with the Wheel Causeway, and is regarded as a separate line, also running along the Wheel Rigg (p. 58). A reference to "the oblique manner in which the Drove Road runs by the side of the Roman Way for some distance" completes the materials at our disposal for judging what Maclauchlan believed to have been the course of the roads.

Evidently he considers that the two reads, in passing from the head waters of the Jed towards England—for it must be borne in mind that he looks upon them as leading from Scotland into England, not rice versa —pursued a parallel course along the top of the ridge known as the Wheel Rigg, there being about 80 yards of an interval between them. On nearing the southern extremity of the ridge the Prove Road swerves to the left and leaves the Wheel Rigg by crossing the Peel Burn at Bagrawfood. This, it may be repeated, is the course followed by the Roman Road of Jeffrey and the Ordnance Map. Maclauchlan's Roman Road, however, which lies to the west of the Drove Road, swerves to the right at the point of divergence, and leaves the Wheel Rigg by crossing the Wormscleugh Burn. This burn, it should be explained, runs along the valley on the west side of the Rigg, while the Peel Burn runs along that on the east side. The following sketch map will make these statements clearer:—



A recent visit to the district failed to furnish any evidence that could support Maclauchlan's hypothesis of a second road. Even the "Drove Road" is now barely traceable at some points of its course. Careful inquiry among the natives established the fact that no tradition of any other road exists. The track which still survives is most commonly known as "the Drove Road." Some had heard it called "the Roman Road." A few of the older people recollected its being spoken of as "the Wheel Causeway." The only person who was familiar with all these names was quite positive that they applied to one and the same ""There are in the line some remains which are called a port of the Catrail or

Pict's Dike; but this has no authority beyond tradition." Maclauchlan, p. 57. note,

line of road. Maclauchlan's own statement to the "traces" he discovered is far from confident. Jeffrey, before him, had seen nothing of a second road, nor did the officers of the Ordnance Survey-who cannot be accused of scepticism in matters of this kind-leave any record of such a road upon their map. The balance of evidence, then, is certainly not in favour of the hypothesis of two distinct roads.

Returning now to Jeffrey's theory, we lind ourselves face to face with an altogether different question. The existence of the road is undoubted. What we have to ask ourselves is: "What proof is there that it was a Roman road?" The only evidence of any value in such a case, apart from the existence of Roman stations or similar remains close by, is that which can be derived from its construction; and this, we have seen, leads Maclauchlan to pronounce unhesitatingly against its being Roman. In matters of this kind it is perhaps unsafe to be dogmatic, but it may be said at once that the present condition of the road does not justify the conclusion that it was the work of Roman engineers. Owing to the changed circumstances of the country, Jeffrey's "Wheel Causeway" is For it is no longer used for communication of any kind. Where its track is still unmistakable, its most characteristic feature is a grass-grown, rounded ridge, somewhere about a yard broad, marking the centre of the road. At one point accident enables us to form a tolerably complete plea of its original structure. On either side of Bagrawford, where the Peel Burn is crossed, the line of the road is the easiest means of ascending the slopes of the valley formed by the brook. Elsewhere the banks are steep. And so the sheep, in passing from one hill to another in search of pasture, still follow the line of the old Drove Road for somewhere about 100 yards. This portion, which is bare of vegetation, exhibits no trace of anything but the most primitive engineering. Large stones of various shapes have evidently been laid down to keep the track solid in wet weather. But there is not much system in the manner they have Yet, so far as one could gather from farmers and shepherds, this was the part of the road that was in most perfect preservation.

One other point requires notice. Jeffrey alludes (p. 248) to "a strong fort" at Bagrawford, and seemingly would have us conclude that the fort was connected with the Wheel Causeway. Maclauchlan makes Jeffrey's "strong fort" a British camp, and places a second camp directly opposite it—the Drove Road passing between them on the southern (or eastern) bank of the Peel Burn, immediately before crossing the ford (p. 58). These he supposes to have been encampments built to defend the passage. It is certainly the case that where the road descends towards the burn, there are on either side of it sundry mounds of earth, which may be artificial. But such a description of the fortifications as we have in Maclauchlan can only be arrived at on the principle of expede Hereulem. So far as present appearances go, these "camps" or "forts" supply no data on which build positive conclusions as to the history of the Wheel Causeway.

These arguments are in no way intended to call in question the opinion of English archeologists that the Cumberland Maiden Way as Roman, or that the Wheel Causeway at one time led from it into Scotland. In mediaval and later days, when the Maiden Way, like other Roman reads, was in general use, an extension of it into Scotland as a drove road became both useful and necessary; and in this sense it can be freely admitted that the one road was a continuation of the other. But the evidence before us seems to forbid any definite statement as to their having formed part of one system constructed in Roman times.

VI.

THE MONUMENTAL EFFIGIES OF SCOTLAND, FROM THE THIRTEENTH TO THE FIFTEENTH CENTURY. By ROBERT BRYDALL, F.S.A. Scot.

The custom of carving monumental effigies in full relief does not seem to have come into vogue in Scotland till the thirteenth century—this being also the case in England. From the beginning of that period the art of the sculptor had made great progress both in Britain and on the Continent. At the close of the twelfth century, artists were beginning to depart from the servile imitation of the work of earlier carvers, to think more for themselves, and to direct their attention to nature; more case began to appear in rendering the human figure; form was more gracefully expressed, and drapery was treated with much greater freedom. When the fourteenth century drew towards its end, design in sculpture began to lose something of the purity of its style, more attention being given to detail than to general effect; and at the dawn of the sixteenth century, the sculptor, in Scotland, began to degenerate into a mere carver.

The incised slab was the earliest form of the sculptured effigy, a treatment of the figure in flat relief intervening. The incised slabs, as well as those in flat relief, which were usually formed as coffin-lids, did not, however, entirely disappear on the introduction of the figure in full relief, examples of both being at Dundrennan Abbey and Aberdalgie, as well as elsewhere. An interesting example of the incised slab was discovered at Greich in Fife in 1839, while digging a grave in the old clurrel; on this slab two figures under tabernacle-work are incised, with two shields bearing the Barclay and Douglas arms: hollows have been sunk for the faces and hands, which were probably of a different material; and the well cut inscription identifies the figures as those of David Barclay, who died in 1400, and his wife Helena Douglas, who died in 1121. This slab, like the one in relief at Aberdalgie, is designed more after the manner of a monumental brass, of which there seem to be no early examples left in Scotland, and only one or two of a later period. That of the Regent Murray in Edinburgh, it may be noted, is a palimpsest, the reverse showing part of an inscription.

The organisation of the Roman Church in Scotland at and for some time after the reign of Queen Margaret being so closely associated with that in England, we naturally find the few early Scottish efficies as similar to those in England as the ecclesiastical architecture of the two countries up to a certain period; and the monumental effigy being so intimately connected with church-building, examples probably have at one time or another existed wherever a cathedral, abbey, or church was crected. The existing examples are distributed between Dundrennan in the Stewartry of Kirkendbright, and Beauly, Elgin, and Fortrose, in the North; and westward as far as the island of Bute, &c., to Seton in the East. Doubtless the great St Clairs of Orkney were at one time represented in the far North, being connected with the Douglas and other more southern Scottish families, as we find some of the great island chiefs in the north-west attempting to perpetuate the memory of their ancestors after the manner of the descendants of the Norman knights. Those efficies existing in the districts where the Celt continued to hold his sway, including most of the western islands, are, with one or two exceptions, of a different type (as figs. 1 and 2), and are seattered over these localities. One of this class, which is pointed out as representing the mighty Somerled, lies on the ground at Saddell,-a mouldered mass, nearly covered with moss and lichen, -and in costume closely corresponds with that of Maclean of Coll at Iona,

While we have it upon safe authorities that certain tombs or effigies, such as those of the Bruce and Robert IL, were sculptured on the Continent and in England, doubtless the greatest number were excented in Scotland. The stone which has been used can frequently be identified with that found convenient to the locality, and the work was probably done by companies of carvers travelling from place to place, as their services were required. Thus, the fine effigy of the Bishop at Fortrose lies under a great arch, the carving on the mouldings of which are of such a high quality as to preclude the idea of such work being done by natives of that locality at that period; and the splendid effigy of the knight at Dunkeld is cut in a peculiar stone, still to be found not very far off.

When the total number of effigies now remaining in Scotland, of the



Fig. 1. Maclean of Ross of Mull, Iona.

1 1g. 2. Maelean of Coll, Iona.

period here dealt with, is summed up, their too often dilapidated condition taken into consideration, and the numerous recesses which

we now see vacant, there is deep reason for deploring the loss which Scotland has suffered from the many destructive causes which have made the country so poor, comparatively, in these interesting relics. The absence of any examples in the Abbeys of Dryburgh, Jedburgh, and Kelso, is easily accounted for by the fact that these edifices, lying in the very track of the wars between Scotland and England, could not fail to suffer injury and destruction from the Southern invaders, and the fierce vengeance taken by the Douglas on his country's foes for the destruction of the tombs of his ancestors in Melrose Abbey is part of the history of that beautiful ruin. In the Northern and other districts the quarrels between jealous and vindictive barons; the destructive march of Cromwell's troops at a later period; the disturbances during and after the Reformation; and the gradual decay consequent upon the long-continued neglect of such noble structures as Arbroath, Elgin, and Dunblane Cathedrals, as well as of the numerous churches erected by the feudal lords for the folk of their manors. sufficiently account for the small number left, as well as the condition to which they are reduced. In addition to these causes, it has also to be borne in mind that, while the ordinary carvings of cathedrals and abbeys were being ruthlessly torn down and used for insertion into the wall of a barn, the front of a cottar's house, and even a common dyke, the more valuable material of which some of the effigies were formed could hardly be expected to escape from the long-continued pillage and destruction. Even in the present day, unprotected effigies at Beauly, Dunkeld, Rothesay, Elgin, and Dalkeith are rapidly mouldering out of all interest; and as time goes on the number left will continue to diminish. The marble tomb of Mary de Couci, daughter of a long line of illustrious and chivalric ancestors, and second wife of Alexander II., "supported by six lions of marble, and a human figure reclining on the tomb," which stood "in the midst of the church" at Newhattle Abbey, is a thing of the past; of the tomb of the great Bruce, concerning which we read in the Exchequer Rolls that it was executed in Paris and sent to Scotland ria Bruges, to be erected in the choir of Dunfermline Abbey, only a few marble fragments, which were supposed to form a part of it, were unearthed in 1817-18; a

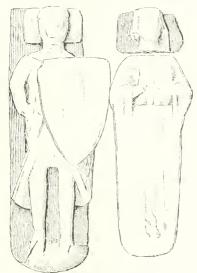
tombstone prepared in England for Robert II, during his lifetime, and decorated at Holyrood by Andrew the painter, for the royal burial-place at Scone; the tomb which the same Andrew wrought upon for the father and mother of Robert II; that of James III., for which the Exchequer Rolls show payments extending from March 1501 till July 1508; the efficy of Margaret, daughter of Robert III., and wife of Archibald boughas, once in Lincluden Abbey—all have long ago disappeared. If we except the fragment of the coffin-lid of William the Lion in Arbroath, the effigy known as Marjery Brace in Paisley, and the unidentified Stewart of Bute which claims alliance with royalty by the presence of the Scottish royal arms over the arched recess—we have no remains of royal efficies in Scotland.

Concerning the efficies of church dignitaries, a great number have also disappeared, while of those which remain, none have escaped severe mutilation or decay; not one of the almost featureless figures now retains the hand which was once raised in benediction, or the other with the sculptured crosier which it once bore. Of the tomb which is supposed to have been commemorative of Walter Paniter, abbot from 1411 till 1443, only a portion of the base remains among the ruins of the stately Abbey of Arbroath : the beautiful and elaborately carved black marble tomb of Bishop Kennedy, who died in 1446, after founding "ane triumphand Colledge in Sanct Androis, called Sanct Salvitouris Colledge, quheirin he made his lear verry curiouslie and coastlie," has long been void of its figure; two effigies, that of Bishop Leighton within a decorated recess, and that of Bishop Gavin Dunbar, who died in 1532, in the transept walls of the old cathedral of St Machar at Aberdeen, are decayed out of all interest, which is also the case with those of Bishop Winchester, who died in 1458, and Bishop Columba Dunbar, who died in 1435, in Elgin Cathedral. To these may be added one attributed to Bishop Ochiltree in Dunblane Cathedral; while broken fragments of similar figures are at Arbroath, Dunkeld, Fortrose, and other places. The rude colossal fragment, said to have been part of a figure of Bishop John Innes, who died in 1414, in Elgin Cathedral, was probably part of the architectural enrichments of that noble ruin.

The most numerous examples are those of knights and nobles who achieved fame for themselves on the field of battle, attained distinction in the government of the realm, or had been liberal benefactors to the Church. Among those not included here are one at Oronsay, and another at Ardchattan, the effigies being after the type of Mackenzie of Kintail at Beauly. In the Church of St Clement at Rowdil (Rodil, or Rodel), in the island of Harris, are three effigies, which have been previously figured and described by Dr Ross, architect, Inverness, in the nineteenth volume of the Proceedings. Two are recessed in the wall of the nave on each side of the south transept, and one, very much decayed, lies at the end of the transept. The most important of the three, that east of the transept, bears an inscription which appears to show that the tomb was erected in 1528 by Alexander, son of William Macleod of Dunvegan, and has the back of the arched recess elaborately filled in with carved panels of sacred and secular subjects. The figure wears the usual conical baseinet, surrounded by a jewelled wreath, short camail, close-fitting jupon, military belt, peaked knee-vieces, and short obtusely-pointed sollerets. The armour on the thighs is dovetailed, but on the front instead of the sides, as is usual. The corresponding figure. in the recess west of the transept, is much more rude and simple, and the one within the transept seems when it was new to have resembled in a general way, that to the east of the transept, the guard of the sword, however, being reversed, while it is straight in the others, and a dagger is at the left side. On each figure the sword, held by the hands, lies straight in front of the figures, with the pommel on the breast and the point between the feet. Referring to the mouldings, transept arches, and the arches of the tombs, Dr Ross remarks that the impression conveyed by their general character is, that the church was the work of an amateur who had seen and was trying to imitate good work; and the same may be said of the efficies,

Hardly worth preserving, on account of their decayed condition, are two effigies (figs. 3 and 4) lying upon the ground outside of Bortrie parish church, the knight measuring six feet to where his toes have been. They evidently belong to the late thirteenth or early fourteenth century, and popular tradition associates the knight with de Longueville who fell in the battle of Inverurie, which was fought in the monediate vicinity.

The effigies of knights in Scotland display much less variety of



Figs. 3 and 4. Effigies at Bourtie Parish Church.

costume than those in England. The great pointed baseinet continued, in many cases, as the typical monumental head-piece long after the period when it was actually in use, and the same remark applies, to a less extent, to its appendage, the camail. Maméliers in front of the arm-pits are rarely seen, the figure of Gordon of Ruthven being, so far as the writer knows, the only one in Scotland on which they appear; and tuilles—thigh-pieces depending from the taces round the waist—do not appear at all. The knightly belt, which was worn upon all occasions, in the hall, at the banquet-table, and on the field of battle, during the period in which it was in use, is often exceedingly rich, and shows considerable variety; it was always worn round the book, or fastened behind upwards to the waist. The sollerets, which are nearly always obtusely pointed, show little variety of form.

Effigies of ladies are not very numerous: the two or three which are



Fig. 5. Effigy of Duff of Muldavat at Duff House Mausoleum.

not included are most inconveniently placed for drawing from; but as they present little variety of costume, and are almost duplicates of those given, their omission will not be so much regretted.

Still more rare are figures in civil costume: in addition to those given, there is one (fig. 5) at Duff House mansoleum, more curious than interesting. It was removed from the parish church of Cullen in 1790, and issupposed to represent John Duff of Muldavat, a reputed ancestor of the Earls of Fife; it bears the date 1404, but probably belongs to a later period, as the figures, which are in a modern form, show signs of having been re-cut.

The recurrence of one type of effigy in places sometimes near to and

sometimes remote from each other, points to the imitation of one type of costume by different and succeeding sculptors, as well as several by the same hand. Thus the tomb of Kenneth Mackenzie of Kintail in general design is very similar to the much more beautiful and probably earlier one of the Bishop at Fortrose; the effigies at Houston are almost duplicates and of about the same period as those in the not far off church of Renfrew; three in Elgin Cathedral are of the same type as that of Gordon at Ruthven, near Rothiemay; at Aberdeen the figure of Irvine of Drum is somewhat similar to that of Menzies of Pitfoddels, from the not far distant church of Maryeulter, and still more to that of Lord Seton, at Seton, near Prestompans, on the south side of the Firth of Forth; while the wives of John Collison, of Menzies of Pitfoddels, and Lady Seton are dressed alike, and have the tassels or knots at the corners of the cushions under the head all of the same rattern.

In strong contrast with the splendid English specimens, such as are at Canterbury and in Westminster Abbey, with their beautifully enamelled hemldry and metal figures, the Scottish effigies, with only two or three exceptions, are of ordinary stone. The exceptions are of marble, and the only suggestion of any other material entering into their composition is the empty hollows for the faces and hands in the already mentioned ineised slab at Creich. Also in contrast with England, Scotland possesses fewer detached specimens, nearly all those now remaining being recessed in walls, and there are none with pillared canopies; such of these as may have existed, from their more prominent positions, would be the first to suffer at the hands of the destrovers.

There is no doubt that many of the Scottish efficied tombs, if not all, were coloured and gift; traces of both are said to have been seen on the base of the tomb of Walter Paniter when it was discovered at Arbroath, and even yet distinct vestiges of such appear on the upper part of the monumental tomb of James, 7th Earl of Douglas, at Douglas.

With the decline of Gothic architecture, the carving of recumbent figures began to cease, although occasional examples of much later periods are sometimes to be met with, such as that of Maclellan of Bombie (fig. 6), in Kirkendbright. In the sixteenth century, the few efficied tombs which were erected began to assume more the character of architectural

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monuments, and the skull-and-cross-bone mode of decoration began to



Fig. 6. Tomb of Maclellan of Bombie, Kirkcudbright.

displace the heraldic shield. Churches ceased to be built upon anything

like the scale of the old eathedral, or with any pretension to beauty of architecture; and as any kind of edifice which kept out wind or rain fairly well was considered good enough for the services of religion, there was neither room nor place for any of those efficies which form so important a part in illustrating the history of the past,

Worn and mutilated as they are, their study is still full of interest to the artist, the antiquary, and the historian. They are almost the only examples left in Scotland, representing the sculpture of the human figure, of the periods to which they belong, and to an extent afford reliable registers of the appearance and costume of those "whose prowess stirred the nations" or whose "coronet counterpoised the crown."

BISHOP OR ABBOT.—ARBROATH ABBEY.

This elligy (fig. 7) is preserved in the chapter-house of Arbroath Abbey, with various other fragments connected with the old ellifice. Although incomplete, the example is of interest on account of the fair state of preservation of some of the details of the costume. The position of the hands and of the staff of the erosier are plainly indicated; the folds of the cope are executed in a graceful and skilful manner; the enrichments are particularly claborate and delicate; and the abundance of jewels and pearls suggest strongly the early part of the fourteenth century as its probable date.

It measures over all 4 feet 6½ inches, and the tomb to which it belonged is said to have borne an inscription.

KING WILLIAM THE LION.—ARBROATH ABBEY.

This monarch, who is credited with having first adopted the lion rampant as the bearing on the arms of the Scottisk Kings, died at Stirling in 1214, and was buried in front of the altar in Arbroath Abbey, where his tomb was discovered on the 20th March 1811. The fragment (fig. 8), which is preserved in the chapter-house of the Abbey, is evidently part of a coffin-lid, and is cut in a dark spotted marble, described as madrepore. It exhibits a remarkably high degree of artistics skill in the treatment of the drapery, as well as of the lion under the feet. The robe, although much longer, has some general resemblance to that on the effigy of Richard I. of England which was found at Rouen, and the belt is similarly arranged, with a slightly different pattern. The aumonière, a purse for containing alms, belongs to the type of the one appearing on the effigy of Queen Berengaria on her tomb in the Abbey of L'Espan, near Mans, and the hands were probably folded on the breast, in prayer. A most peculiar feature is the presence of remains of four small figures in the act



Fig. 7. Effigy of a Bishep or Abbot, Arbroath Abbey.



Fig. 8. Effigy of King William the Lion. Arbroath Abbey.

of arranging the drapery; the very slight portions remaining of those at the waist show indications as if of a strap passing under the heel, while the most complete, the one at the feet, is a very elegantly designed figure of an angel, inverted, robed, and winged.

The fragment measures 4 feet 2 inches.

SIR ALAN SWINTON.—SWINTON CHURCH, BERWICKSHIRE,

Sir Alan Swinton, a baron of the reign of William the Lion, was the first of his line bearing the name of Alan, and the fifth in descent from Edulf, the supposed founder of the family, who was living about 1060. The Swintons of Swinton derive their name from the lands in Berwickshire now constituting the parish of that name, the whole or greater part of which they at one time possessed. The supposition is that their name originated from the lands being infested by wild-boars, and popular tradition attributes the first acquisition of the lands by the Swintons to the prowess of an ancestor in delivering the district from the ravages of these animals. Another legend represents Edulf as having received a territorial grant from Malcolm Canmore as a reward for his valour and loyalty in aiding him in his struggle for the recovery of the Scottish throne. To the Priory of Coldingham, founded by King Edgar in 1098, David I, had granted the superiority of the lands of Swinton and others, in Lothian, by a charter dated at Peebles in 1126. Sir Alan is said to have obtained a charter of the barony in the reign of William the Lion from Bertram, who was Prior of Coldingham about 1188. He died about the year 1200, and his name and attributes—

> "The giant stature, and the ponderous mace, Which only he of Scotland's realm could wield."

are borrowed by Sir Walter Scott for his hero at the battle of Halidon Hill, although it was not fought till two centuries later, and the Swinton who fell there was a Sir John.²

The effigy (fig. 9), which is built into the wall of the parish church, is very rudely executed, and may very probably belong to the period to which it is assigned. The slab behind the effigy bears a peculiar arrangement of the Swinton arms, which are a chevron between three boars' heads crased, the crest being a boar chained to a tree.

A vault in front of the monument and under the floor of the church, on being opened, was found to centain a coffin and three skulls, one of which, being unusually large, was supposed to be that of Sir Alan. A cast of it was taken and presented to Sir Walter Scott, who placed it beside a similar one of King Robert Bruce in Abbotsford. There is a story of a ghastly glare shed through the mullioned window by the setting sun on the Swinton skull being

¹ The Swintons of that Ilk.



Figs. 9 and 10. Recessed Tombs, with Effigies of Sir Alan Swinton, at Swinton Church, and Alan, Lord of Galloway, at Dundrennan Abbey.

accepted by Sir Walter as a presage of tidings which he received on the following day of a calamity which had befallen one of Sir Alan's descendants.

ALAN, LORD OF GALLOWAY. - DUNDRENNAN ABBEY, KIRKCUDBRIGHTSHIRE.

Dundrennan Abbey is supposed to have been founded in 1142 by Fergus, four years after he first appears as Lord of Galloway, and two years after his great neighbour, de Morville, founded the stately Abbey of Kilwinning. His predecessors as Lords of Galloway were Ulgeric, and Dovenald who fell at the Battle of the Standard in 1138; and besides Dundrennan, he, as well as some of his successors, founded other abbeys. Fergus was succeeded by his son Uchtred, who founded at Lincluden a priory of Benedictine nums, and the monunent is supposed to commemorate Uchtred's grandson Alan, who was buried in Dundrennan Abbey.²

This Alan, Lord of Galloway, was a great man in his time—Scotorum longe postissinus, as he is named by Buchanan—and was also denominated Alan de Dumfries. He was a member of the stock of the Norman aristocracy which overran England and the richer portion of Scotland; was Constable of Scotland in 1233, and one of the great barons of England who extracted the Magna Charta from King John. When the Norwegians had settled in some of the Western Isles, and the Scottish kings failed to obtain possession of these by treaty, Alan of Galloway, assisted by Thomas, Earl of Athole, was encouraged by Alexander III. to act against the hardy and enterprising Norsemen. The fleet of Alan alone consisted of 130 ships, small craft of course, but very formidable in piratic warfare, and the expedition was so successful that Olaf the Black was expelled from his kingslom of Man.²

Alan was the last native prince of Galloway, and Threave Castle, which was built in the fourteenth century, occupies the site of his fortalice.⁴ A man of amiable disposition, he was anxious for the welfare of his people, spending much time in improving his territories, reforming the laws of his country, and advancing the interests of religion. His bounties to monasteries were very considerable; he granted or confirmed many of their charters, and relieved Galloway from the demands of the monks of Kelso³ In 1290 he married, for his second wife, the chelest daughter of David, Earl of Huntingdon, the king's next brother; and it was the eldest of his two (or three) children by this marriage, Devogilla, born in 1213, who founded Sweetheart Abber, where side deposited the heart of her husband, John Ballod, of Eernard's Castle where side deposited the heart of her husband, John Ballod, of Eernard's Castle

- 1 The Swintons of that Ilk.
- ² Proceedings of Dumfries and Galloway Antiquarian Society,
- ³ Tytler, History of Scotland.
- 4 Harper's Rambles in Galloway.
- 5 Hutcheson's Memorials of Abbey of Dundrennan.

in England. Roger de Quincy, Earl of Winchester, by marriage with one of Alan's daughters, obtained great possessions in Scotland, and by her right became High Constable.

The remains of the tomb (fig. 10) are in the north wall of the eastern aisle of the north transept, and the figure is cut in a grey stone similar to that of the building. The shoulders rest in a shallow socket hollowed out of the slab, and near the head is a small heptagonal hollow, about half an inch deep. The left side shows no interest except the scabbard of a ponder-us sword, and the fragment measures 5 feet 4 inches long, and 1 foot 10 inches across the shoulders.

Marjory Abernethy.-St Bride's Church, Douglas.

In the restored Kirk of St Bride, at Douglas, in Lanarkshite, which figures prominently in Sir Walter S-ott's Costle Demograms, among probably the most interesting group of tombs now existing in Scotland, is the detached and much decayed figure of Marjory Abernethy, who died in 1259. She was married to Hugh Douglas, younger of Douglas, uncle to the good Sir James.

The figure (fig. 11) is the size of life, and the base or end is terminated by a spiritedly exercel piece of foliage, shown over the figure. Some doubt has been cast upon its extreme antiquity, on the presumption that if it then existed, it would have been destroyed by the English when they held possession of the patrimony of the Douglases, and that it must have been executed after the English were expelled. This, however, is mere supposition, although very probably it was then much injured.

SIR JAMES DOUGLAS .- ST BRIDE'S CHURCH, DOUGLAS.

A decorated and moubled niche, of a later period than the figure it contains, in the Kirk of St Bride, at Douglas, bears in its apex the Douglas Arms-man's heart, with three stars in chief—as borne by the Douglases before the heart was ensigned with the imperial crown at a much later period than that of the effigy (see fig. 12). The figure is that of the Good Sir James, the comrade of the Bruce throughout his adventurous career, who lives in the pages of Froissart as one of the most doughty and most chivalrous knights of the period, and is referred to by Fordum as "in his day a brave hannerer of the English." A page to Bishop Lamberton of St Andrews, he, in his eighteenth year, joined Bruce's standard, after the death of Comyn, and was present at the coronation at Scone.

He was the eldest son of William, fourth Lord of Douglas, whose estates had been given by Elward of England to the Lord Clifford. After the imprisonment and death of his father, he was educated at the court of France, and during the course of the long war waged against England for the inde-

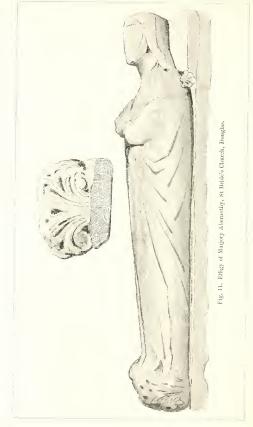




Fig. 12. Effigy of Sir James Douglas, St Bride's Church, Douglas,

pendence of his country, is said to have taken part in seventy hattles. He was never married, but left a natural son, William Douglas, known in history as the Knight of Liddeslale.

The incidents of his life fill some of the most familiar as well as most romantic pages of Scottish history, and the well-known circumstances of his death are recorded on the recent inscription placed beside the tomb; "The Good Sir James of Douglas, killed in battle with the Moors in Spain, while on his way to the Holy Land with the heart of King Robert the Bruce, 25th August 1330."

The stature of the figure corresponds with the description which is given of him in history, where he is sometimes mentioned as the Black Douglas.

HUGO DE ARBUTHNOT.—ARBUTHNOT CHURCH, KINCARDINESHIRE.

The old parish church of Arbuthnot, delightfully situated, overlooking the river Bervie, about midway between Bervie and Fordoun, was founded in the thirteenth century. It still retains a portion of the building of that period; patched up in a rude manner after the Reformation, it remained so, uncared for, till 1800, when, by the efforts of the Rev. Mr Spence, the parish clerryman, it was disencumbered of its unsightly galleries and some other encumbrances, and unitionally restored.

The first on record of the family of Arbuthnot was Hugo de Aberbothenoth, who possessed the lands of Arbuthnot about 1160. The effigy (fig. 13) is now lying in a chapel dedicated to the Virgin, which was founded by Robert de Arbuthnot towards the end of the fifteenth century, and commemorates Hugo, the third of that name, and the fourth laird in succession. He was designated Hugo Blundus, or Hugo le Blond, from the flaxen colour of his hair, and was a liberal benefactor to the clergy, especially to the monks of Aberbrothock in 1882.

Although now appearing as a detached tomb, it was probably at one time recessed within a wall. The shields bear, on the first a fesse chequé, the second and third the Arbuthnot arms, and a part of the latter appears on the fourth, which is incomplete. From the spacing of the shields, there have been probably five of them originally, and it is stated by Nisbet in his Heraldry that a shield in the lase bore his lady's arms—three chevrons—she being probably a daughter of or nearly related to the de Morvilles, who were for several generations Constables of Scotland. The large shield bears portions of the Arbuthnot arms only.

The monument measures 7 feet 5 inches in length, and is of common freestone, the intervals between the stones bearing the shields being filled in with plaster.



Fig. 13. Elligy of Hugo de Arbuthnot, Arbuthnot Church.

Malise, Earl of Strathearn.—Dunblane Cathedral, Perthshire.

The ancient earlylom of Strathearn was one of the most powerful in Scotland. The capidity of James I, who brought about its reversion to the Crown by contending that the succession was limited to heirs-male when it passed into the possession of Malise, son of Sir Patrick Graham, so excited the vengeance of the uncle of the young earl, that it led to the murder of that monarch in the monastery of the Dominicans in Perth in 1436. Some two centuries earlier, about 1256, we find an earlier Malise, Earl of Strathearn, acting in concert with the Earl of Gloueester and others from England, and the Earls of Doughas and Crawford, surprising the Castle of Edinburgh and relieving the boy King, Alexander III., and his youthful queen, the Princess Margaret, from their real or pretended detention in that fortress. In the regarcy which was soon after appointed for the government of the realm and the custody of the young King—then about fourteen years of age—the same Earl Malise was on the list which included the clergy and nobility favourable to England, as one of the English party.

It is probable that this is the Earl whose effigy (fig. 14), with that of his Countess, lies on the floor of Dunblane Cathedrah. The two figures are hewn out of one block of a common hard grey stone, and are said to have been discovered in the choir, surmounting a leaden coffin inscribed with the date 1271, and attributed to Malise, eighth Earl of Strathearn. The roughened surface of the neck suggests the texture of mail; the shield bears no traces of arms; and the Earl has no sword or other weapon. The figures measure about 6 feet 9 inches to the toes; the Earl is 1 foot 8 inches across the shoulders; and the slightly convex shield is 2 feet 10 inches in length by 18 inches in width.

In the graveyard of the parish church of Bourtie there are two effigies (see figs. 3 and 4) very similar to these: that of the knight is decayed out of all interest, and the lady is merely three unshapely fragments of stone. Local tradition assigns these efficies to a de Longueville and his wife, the former of whom, it is said, took part under Bruce in the fight with Comyn of Buchan on the adjacent hill of Barra, where the natives profess to point out the trenches constructed before the battle of Inverurie. These figures measure about 6 feet in length, and no arms are traceable on the shield, which is unusually broad.

Walter Stewart, Earl of Menteith.—Priory Church of Inchmanome, Menteith, Perthshire.

Some 15 miles beyond Stirling, in the old district of Menteith, lies the beautiful Lake of Menteith. It contains three islets, the largest of which, anciently known as Insula St Colmoci, contains the roofless ruins of a priory church and other adjacent buildings.



Fig. 14. An Earl (Malise) and Countess of Strathearn, Dunblane Cathedral.

The old Celtic name—Inchmecholmec—has given place to its modern form of Inchmahome. Its religious house was founded in the thirt-earth or early fourteenth century, and appears to have been originally in the Diocese of Dunblane; the Priory is mentioned also as belonging to Cambuskenneth; and an "Adam, Prior de L'Isle de St Colmock," swore fealty to Edward I. of England in 1296. At a more recent time it was the home of the ill-fated Queen Mary during part of her childhood, and a small arbour of boxwood still remaining on the island has been traditionally associated with her name and memory.

History mentions that Walter Stewart married the younger sister of the Countess of Menteith, wife of Walter Comyn, Earl of Menteith, connected with whom a dark story arose in Scotland. This Countess is mentioned as having encounged a criminal passion for an English baron named Russel, and was openly accused of poisoning her husband in order to make way for her paramour, whom she married with indecent haste. For this she was disgraced and compelled to leave Scotland, after being despoiled of her estates; Walter Stewart and his lady were then advanced to the earldom by the parliament or assembly of the chergy and barons of the kingdon. Their second son was the Sir John (Stewart) of Ruskie who betrayed Wallace.

Walter Stewart was a man of considerable importance among his peers, he is said to have accompanied Lewis IX. of France in the disastrons crusale of 1248-49, and to have distinguished himself in repelling the attack of the Norwegian King Haco at Largs in 1263, where his brother the High Steward—the Scottish Hardyknute—was in command of the right wing of the army. About the year 1286, a Walter Bulloch, Earl of Menteith, was one of those who accompanied the Princess Margaret to attend her marriage with Eric of Norway, about which time we also find Walter Stewart, Earl of Menteith, joining the other Scottish nobles who met at Bruce's Castle of Turnberry, in order to favour his accession to the throng

The figures (of which two views are given in fig. 15) lie on the ground in the centre of the chancel of the church, and the block of stone measures 7 feet 6 inches in length by 4 feet 2 inches in breadth at the top, narrowing downwards.

Effigy of a Lady,—Paisley Abbey,

In the centre of the dripping aisle of Paisley Abbey, an effigy which is popularly attributed to Marjory Bruce, daughter of King Robert, locally known as "Queen Blearie," lies upon a large modern rectangular structure measuring 8 feet 2 inches by 24 inches, and 3 feet 10 inches in height. The effigy (fig. 16) measures 6 feet 4 inches, and is thickly coated with old, hard paint. The back of the head has been mended with plaster or cement; a rose decorates



Fig. 15. Two Views of the Effigies of an Earl (Walter Stewart) and Countess of Menterth, Inchmolione-

the forehead, from which the hair hangs to the shoulders in heavy, clumsy locks, which has probably been the restoration, perpetrated by a local mason, of a decayed head-dress, who may also be responsible for the thinning of the arms and the hands, the sharpening of the band across the breast, and the cutting of parts of the folds of the dress at the feet into a suggestion of the head and tail of an animal. The narrow girdle across the waist has a small buckle near her right side, and in the centre there seems to have been aronament of some kind with a pendant, between which is a small shield. At her left side hangs an alms-purse, and the dress and mantle extend beyond the feet, terminating in folds, the elevation of the end being decorated with foliated carving, as shown in the accompanying figure (fig. 17).

The effigy was discovered while sinking a grave in the centre of the choir



Fig. 17. Elevation of end of Effigy, Paisley Abbey,

of the Abbey, in front of where the high altar stood, the spot being marked by a handsome memorial in granite and Sicilian marble, by command of Her Majesty Queen Victoria, on her visit to Paisley, as a descendant of the great Bruce. It is of the same type as the effigy of Marjory Abernethy at Douglas; there can be no doubt of its belonging to the period popularly ascribed to it, and from the place in which it was found, it is not unreasonable to assume that tradition may be correct in attributing it to the daughter of the Bruce.

With regard to the structure upon which the figure now lies, including the canopy over the head, it was erected at quite a recent date by a minister of the Abbey, a Dr Bogue or Boog, who collected fragments of sculptured debris lying in various parts of the Abbey, and had them wrought into the structure upon which he placed the effigy. On the flat vertical surface of the canopy are the figures of our Saviour on the cross, with a label inscribed INRI, with a fennle figure near His right side, and a Madonna and child near His left.



Fig. 16 Effigy of a Lady, Paisley Abbey.



Fig. 18. Effigy of a Knight, Old Kill direk.

Underneath are three shields, the central large one bearing the Paisley arms, and those on the dexter and sinister side, respectively, a fesse chequic between three roses, and a lion rumpant over a fesse chequic. The two sides of the base have inserted into each, six small figures of ecclesia-tics; one has a riband inscribed JOHES D LYCHTOU, another ROBERT WYSHARD, and a third JOHES D LYCHTOUE, probably referring to an Abbot of Limitingow and Bishop Robert Wishart, who died Bishop of Glasgow in 1346.

Efficy of a Knight.—Church of Old Kilpatrick, Dumbartonshire.

This effigy (fig. 18) is interesting on account of the remains of two little angels, one on each side of the head—a characteristic very rare in existing Scottish effigies, although of frequent occurrence in those of England and other countries. The example, from the costume, belongs to the late thirteenth or beginning of the fourteenth century, and seems to have no history. It is of freestone, rather rudely proportioned, and lies exposed on the ground in a little enclosure at the southeast corner of the graveyard at Old Kilpatrick, in Dumbartonshire; the total length of the stone is 6 feet 5\forall inches.

Effigy of an Ecclesiastic.—Dundrennan Abbey.

This curious stone (fig. 19), which was formerly in the chapter-house of the Abley of Dundrennan, is now erected within a recess in the wall near the entrance to the nave. The costume is the cowl and hood of the Cisteriaus, and it is usually assigned to the early part of the fourteenth century.

On the left breast there is slightly but very definitely formed the hilt and upper part of a dagger, with rounded pomnel and curved guard. On the little figure underneath the feet, an incision in the abslomen allows the bowels to protrude, and the legs are bent inwards at the knees, the feet having slightly pointed shoes. Various meanings have been attached to the small figure, none of which seem satisfactory. The presence of the dagger is also difficult to account for.

The stone is of a close, hard grain, and measures 6 feet 7 inches from the top of the crosier to the lowest knee of the small figure, and is 1 foot 8 inches across the top.

BISHOP OR ABBOT.—ELGIN CATHEDRAL.

Recessed in the wall of St Mary's aisle in the venerable Cathedral of Elgin is the unidentified figure of a bishop or mitred abbot (fig. 20), of probably the thirteenth century. In the guide-book to the ruins it is mentioned as having "been called the tomb of Bishop Alexander Stewart, who was ordained in 1482, and died in 1501." The slight traces of ornament, and the style of carving

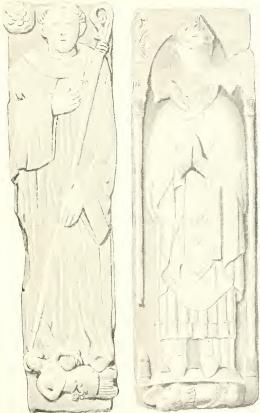


Fig. 19. Effigy of an Ecclesiastic, Dundrennan.

Fig. 20. Bish quor Abbot. Elzin Cathelial

of the animal under the feet, are alone sufficient to cause it to be assigned to a much earlier date, while the form of mitre is of the type prevailing in the thirteenth and early fourteenth centuries.

BISHOP. -- DUNBLANE CATHEDRAL

In the north wall of the choir of Dunblane Cathedral lies this effigy of a bishop (fig. 21), which has been usually referred to as that of Finlay Dermock, a Bishop of the See at the beginning of the fifteenth century, who is said to have built the first bridge across the river Allan at Dunblane. The style of carving, the short form of the mitre, and the modiling of the old arch, which was replaced by a new one of the same style during the recent restoration, point very evidently to the thirteenth century as the period to which it ought to be assigned. It has been suggested as probable that the figure represents Bishop Clement, a preaching friar of foreign birth, who is said to have received the tonsure from 81 Dominic, and at whose accession to the See in 1233 it is stated that "the rents were barely sufficient to maintain him for six months; there was no place in the cathedral where he could lay his head; no chapter; only a rustic chaplain saying mass thrice a week in a roofless church." After a pontificate of fifteen years, his energy resulted in his leaving it "a stately suncturary, rich in hand and heritage, served by prebendary and canon,"

The effigy, of common freestone, measures 6 feet 9 inches all over, 8 inches of which are occupied by the animal at the feet.

Another effigy lies within a rudely arched recess in the nave, which is supposed to be that of Michael Ochiltree, a Bishop of the middle of the fifteenth century, who richly adomed the building. It is now decayed out of all interest.

BISHOP.—FORTROSE CATHEDRAL.

The beautiful rain of Fortrose Cathedral is built on the summit overlooking the Moray Firth, about 11 miles by water from Inverness. One of the walls contains the remains of three tombs; one of these is attributed to an alleged Countess of Ross, or Enfamia Leslie, who possessed the property of the cardom of Ross, and died before 1398, but the figure, if it ever bore one, is gone, and the carving, which was once celebrated for its beauty, is nearly quite effaced; a second tomb bears the broken fragment of a bishop, the face of the tomb decorated with an arcade; and the third, which is tolerably complete, is the one here given. (Figs. 22 and 23.)

Which bishop the tomb commemorates is not known, although the name of a Bishop Fraser has been attached to it; tradition associated it with the second Bishop of the See, but that places it at a period very much earlier than its style. The workman-hip is of a very superior kind; part of the moulding is filled in

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Fig. 21. Effigy of a Bishop, Dunblane Cathedral.



Fig. 22. Effigy of a Bishop in Fortrose Cathedral

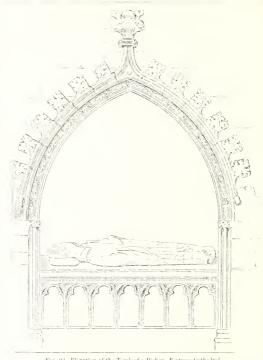


Fig. 23. Elevation of the Tomb of a Bishop, Fortrose Cathedral.

with most beautifully carved clusters of acorns and oak-leaves, faithoutly copied from nature; and the fragments of two small lions at the spring of the arch, nearly as sharp as when they were chiselled, are most elegantly designed, and carved with the most exquisite taste.

Fortrose, although now a quiet village, was celebrated in its day, not only on account of its catheiral and the castle which has now disappeared, but for its position as a seat of learning. Its old name was Chanourie, so called from its ecclesiastical position as the seat of the Bi-shop of Ross, and the fact that within it were kept all official documents and writs connected with the church and lands in the diocese. In 1455 Fortrose was finally united to Rosemarkie, nearly a mile further north, by a charter of James 11.

SIR WILLIAM OLIPHANT.—CHURCH OF ABERDALGIE, PERTHSHIRE.

In the churchyard of the parish church of Aberdalgie, a slab of black mardie (fig. 24) commemorates one of the Oliphants of Aberdalgie. It was formerly in the old parish church, which was adjacent to Aberdalgie Castle, and wadestroyed by Cromwell's troops in 1651. A new church was erected in 1773 on a site near to the old one—probably where the stone is now placed—and the carving was covered by another slab, supported by six 12-inch pillars, in 1780, by Lawrence Oliphant of Gask; the latter slab bears the inscription, "Hie jacet dominus Willichuss Oliphant, dominus de Aberdalgy, qui obiit quinto die mensis Februarii, anno 1329," with the Oliphant arms—gules, three crescents.

The carving is in very flat relief, and the character of the design partakes ingre of the nature of a monumental brass than of a piece of sentpure. The figure, in design, costume, and arrangement, corresponds very closely with that on the brass of Robert Albyn in Hennel-Hempstead, Herts, which is assigned to the period of Henry IV. (1399–1413); it also has a resemblance to the figure on the brass of Sir John de Argentine, of 1382; and the surcoat, with its studs, is very similar to that on the brass of Sir Miles Stapleton, at Ingham, of 1365. There is thus reason for believing that the carving belongs to a later period than 1329, as given on the modern inscription.

Sir William Oliphant was an adherent of King Robert Bruce, and was one of the Scottish magnates who subscribed the famous letter to the Pope, in 1320, asserting the independence of the kingdom. He was succeeded by his son Walter, who received in marriage Elizabeth, a younger daughter of King Robert.

In the absence of Scottish monumental brasses, the carring is most interesting, as showing the same class of design. It measures 8 feet 2 by 4 feet 3 inches, and is about 9 inches thick; the surface is rapidly scaling off, and a considerable portion, including the face, is filled in roughly with plaster.



Probably it is the only example of the kind in Scotland, a somewhat similarly designed one at Creich, near Capar, being executed in incised lines.

STEWART OF BUTE.-ST MARY'S CHAPEL, ROTHESAY.

In the ruined Chapel of St Mary at Rothesay are three effigies.

The rule slab (of which a representation is here given in tig. 25) is destitute of history, although tradition sometimes claims it as the figure of the great Somethel, as is the case with another stone at

Saddel, in Kintyre. The tomb (fig. 26) occupies part of the south wall of the ruined Chapel of St Mary at Rothesay, and from the co-tume and architectural details it may be assigned to the latter part of the fourteenth century. No record seems to exist as to who the figure represents, or of any inscription which the tomb may have borne. That it is connected with a Stewart of the royal line is certain from its heraldry; but throughout the centuries when the Stewarts were dominant as monarchs of the country, or prominent as territorial barons, history has associated so many of the name with the various localities that a solitary unrecorded tomb, containing upon itself the only information as to the cause of its erection, is almost impossible to be identified with

any particular individual.

Tradition in this case asserts, and meets with the common acceptance, that the figure represents Sir John Stewart of Bonkil, who fell at the disastrous battle of Falkirk in 1298. The period of the costume precludes this supposition; and even if it had been erected to his memory at a much later date, one would reasonably expect to find still some trace of the Bonkil arms. Another conjecture refers it to John Stewart, Sheriff of Bute, a natural son of Robert II., who died in 149; a claim of a more ambitions kind has been put forward for it on behalf of King Robert II., with the supposition that it was the one prepared during his lifetime; while another suggestion has been made that it was creeted by



Fig. 25. Slab with Effigy, in St Mary's, Rothesay.

Robert II. in memory of his father, Walter, the eighth High Steward, who married a daughter of Robert Bruce, and died at Bathgate in 1327 or 1328.

On the opposite wall, similarly recessed (fig. 27), is the nouldered fragment

of the etter of a hady and baby—little more than a shapeless stone. It bears no aims, and the base contains some remains of small upright figures, of which there have been eight, but the debris possesses almost no interest.



Fig. 26. Tomb with Effigy of a Stewart of Bute, St Mary's Chapel, Rothesay.



Fig. 27. Tomb with Effigies of a Lady and Infant, in St Mary's Chapel, Rothessy.

Patrick Douglas.—Dundrennan Abbey.

This slab (fig. 28), which was formerly in the chapter-house of Dundrennan Abbey, is now erected against the west wall of the nave, within a recess. It is



Figs. 28, 29. Slabs with Effigies of Patrick Donglas and a Nun, at Dundrennan Abbey.

rudely executed in very flat relief, with a well-executed inscription in raised letters. The only peculiarity about the carving is on the oak-leaves on the sinister side, the holes in which, dividing the leaves into segments, having been executed with a drill. The inscription, when complete, is supposed to have real:—"hic jacet dominus patricius doglas quondam cellerarius de dundranna qui obiit anno domini succetaxix orate," &c., although the word here given as a contraction for "dominus" appears on the stone very clearly as given on the illustration. It measures 5 feet 64 by 2 feet 9 inches.

Incised Effigy of a Nun.—Dundrennan Abbey.

It is peculiar to find a nun associated with a monastery—the Nuns of Lincluden belonged to the order of the Benedictines, and the Monks of Dundrennan to that of the Cistereians—but the presence of the slab here may perhaps be accounted for on the supposition that it commemorates a benefactress to the monastery, and of kinship to the Lords of Galloway, who are represented in the sume Abbey by the effigy of Alan of Galloway.

The slab is of common stone, and measures 5 feet 3 by 2 feet 10 inches.

James "The Gross," Seventh Earl of Douglas.—St Bride's Church, Douglas.

James "the Gross" was grand-uncle to William, the sixth Earl of Douglas, who, with his brother, was executed at Elinburgh Cashe, through the influence of Crichton and Livingston. He assumed the title of Earl of Douglas on entering into possession of the estates, the greater part of which then reverted to him. Although a man of fierce and determined character, and living in an age when revenge was esteemed an almost sacred obligation, he was singularly supine in respect to the conduct of Crichton and Livingston. His memory

has been stained with a slight suspicion of baving connived at the execution, as, after a short period, he was in the closest bonds of intimacy with those who had destroyed the head of his house. The French property and the Dukedom of Tournine, being male fief, returned to the Crown of Frame; and the large mentailed estates in the counties of tolloway and Wigtown, along with the domains of Enlvenie and Ormond, reverted to William's only sister, Margaret, the Fair Maid of Galloway, who was afterwards married to William, Earl of Douglas, the son of James "the Gross," thus again uniting the estates.

The monument (fig. 30) is in the Kirk of St Bride, at Douglas, and the architectural portions have been partly restored. The arms surmounting the tomb show, quarterly, first, the Douglas arms of three stars in chief—being the old bearings of the family before Douglas became a surname—over a man's heart; second, a lion rampant for Galloway; third, three stars (two and one) for Douglas; the fourth, which is now effaced, probably hore a saltire and chief, for the lordship of Galloway, or a lion rampant for Liddesdale, the latter being differenced by colour from the Galloway arms. The second of the figures on the base is habited as an ecclesiastic, and the head-dress of the last is supposed to indicate that she was unmarried; these probably represent the family, and the shield separating the groups has the Douglas arms, as above, impaling Saintelair of Orkney.

In point of design and execution, this is the finest of the Douglas group of tombs, and the carving of some of the details resembles very closely similar parts on the walls of McIrose Abbey. It is said that the mutilations were largely the result of some of Cromwell's troopers having been quartered there. Portions of the arms on the wall show distinct traces of having been coloured and gibbel.

The following recent inscription is painted beside the tomb :-

"James, 7th Earl of Donglas and first Earl of Avondale, surnamed the Gross Died in 1443 and his wife, Lady Beatrix Sinclair."

Hie jacet magnus et potens princeps, Dominus Jacobus de Donglas, Dux Touronies et comes de Douglas, Dominus Annandiae, Galloviliae, Liddaliae, et Jedburgh Forrestiae, et Dominus de Balveniae, Magnus Warlanus Regui Scotiae versus Angliam, &c. obiit 24 die mensis Martii, anno Domini 1443."

"Hie jacet Domina Beatrix de Sinclair, Filia Henrici, Comitis Orcadum, Domini de Sinclair, &c., Comitissa de Douglas et Aveniae, Domina Gallovidiae."

SIR JOHN ROSS.—PARISH CHURCH OF RENFREW.

Within a recess in the wall of the modern parish church of Renfrew are two effigies, resting upon a sculptured base (fig. 31). Over the recess is the modern



Fig. 30. Tomb of James, 7th Earl of Douglas, in St Bride's Church, Douglas.

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inscription:—"hic jacet joh(anne)s ros miles quō(n)dam dominus de hawkhede et marjoria u(x)or sua or(a)te pro ipsis qui obiti." The effigies are almost identical with those at Honston; the armour of Sir John Ross does not seem so well understood, owing probably to some cleaning which the effigy (fig. 32) has undergone; and the mail on the shoulders is of the ordinary kind, while that on the Houston figure is more like the older kind known as "rustred." Details of the figures on the base of the monument are given in fig. 33.

In Crawford's description of Renfrew, 1710, and also 1718, is:—"Adjoining to the church there is a spacious Isle, the burial place of the family of Ross:

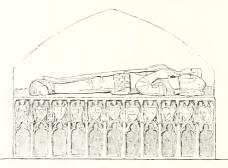


Fig. 31. Tomb of Sir John Ross and Marjory Mure, in Renfrew Parish Church.

as also on the south side of this church lies the statue of Sir Josias (sic) Ross, of Hawkhead, and Marjory Mure, a daughter of Caldwel, his wife, as big as the hife, with their coats of arms over them, each carved in one stone.⁷ Then follows the inscription, differing slightly from its present form, especially in the name Josias, obviously an error. At page 305 of the ISIS edition of the same book, referring to the Mores or Muris of Caldwell, is:—"Next is John, whose charter under the great seal is dated 1476. By Elizabeth his wife, John More had a daughter Marjory, who was married to Lord Ross of Hawkhead. This lady lies interred with her husband, under an arched niche, in the choir



Fig. 32. Effigy of Sir John Ross of Hawkhead, in Renfrew Parish Church

of the clurch of Renfrew. He is in armour, and she in the dress of the time.

The Caldwell arms, being three mullets on a bend, within a border engrailed,
are still to be seen over the tomb. A narticle in the Renfrewhire Magazine
1846-47 says:—"Under an arch in the old church of Renfrew lay the figures
of Sir John Ross of Hawkhead, and his lady. Dame Marrery Mure, having



Fig. 33. Details on the base of the Tomb of Sir John Ross of Hawkhead,

over them the following inscription (as now given). This relic of antiquity—which, though severed from its antique connection of statue and inscription, is still to be seen, the statues within the aisle, the inscription over the arch." In an address to the Glasgow Archeeological Society in November 1860, the late

Mr James Smith of Jordanhill said;—"In the wall (of the old church) there was a Gothic arched recess or niche, formerly containing the monument of Sir John Ross of Hawkhead and Marjory his wife, with the following inscription:
—Hic jacet (&c.). The menument consists of a massive pedestal or surcephague, aborned with coats of arms, upon which reclined full-length figures of the knight and his lady, much dilapidated, but of a high style of art." The monument now retains no trace of the Mure of Caldwell arms, they having probably been destroved when the present church was rebuilt.

The Inch Castle was one of the ancient seats of the Rosses of Hawkhead, and stood near the burgh on the river Clyde.

Apart from the local tradition, as detailed in the Rinfracthire Magazine already quoted, we find Sir John Ross, as "Ross of Halket," along with two the Douglases, accepting a challenge from three Europudian knights—the two Lalains and Meriadet, Lord of Longueville—at a tournament held at Stirling to celebrate the nuprials of James II. and Mary of Guedres. In this encounter the Scots were not so successful as Ross was in the local tradition, the King having thrown down his gauntlet, as a signal to stop the contest, when one of the Douglases was felled by a blow from the axe of his opponent.

According to Nisbet, the barons of Hawkhead are supposed to be the descendants of one Peter, who in the reign of Heury I. took his name from his place of residence, called Ross, in the East Riding of Yorkshire, whose great-grandchild, Robert Ross, was sent by King John of England to King William of Scotland, and is said to have married a daughter of that king. The larons of Hawkhead are mentioned as being eminent in the reign of Robert II., when one of the numerous Sir Johns obtained the barony of Melville by marrying Agnes, daughter and sole heiress of Sir John McVille of that Jik. He quartered the arms of his mother, three crescents within a bordure, changed with eight roses for Melville, with his paternal arms, a chevron chequé between three water budgets. Nisbet adds, "the chevron chequé was not carried to difference from any other family of the name, but, as 1 take it, to show that they were dependants and vassals of the High-Stewards of Scotland."

The Sir John Rose whom the monument commemorates acquired the lands of Arthurlie in 1439 from William Stewart of Castlemilk, and in 1445 other lands from Robert, Lord Lyle. On the 9th March 1450 a commission passed the great seal in his favour as Sheriff of Linlithgow for life. He married, for second wife, Marion Baillie, of the family of Lamington, relict of John, Lord Somerville, and attempted to divorce her, and died prior to 1501. John, the first Lord Ross, was so created about 1503; he was designed "of Melville" during the lifetime of his grandfather, whom he succeeded in 1501, and fell at Floiden.

Altogether there are ten coats of arms on the monument. On the breast of

the knight is a small shield bearing the Stewart fesse; on the base (see fig. 34), the shields bear (1) the arms of Ross, (2) Erskine, (3) Ramsay, (4) Scotland, quartering Stewart, (5) Scotland, (6) Stewart, (7) Vans, (8) Ross, and (9) Ross.

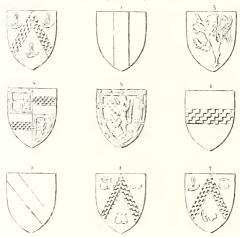


Fig. 34. Shields of Arms on the base of the Monument of Sir John Ross.

EFFIGY OF A KNIGHT.—PARISH CHURCH, CUPAR.

The efficy (fig. 35), which is locally known as "Muckle Fernie," is built into the wall of the parish church of Cupar, in Fifeshire. It has been referred to as that of Sir John Arnot of Fernie, who is said to have fallen in the last crusade, but of this there is room for considerable doubt. On the shield over the recess are three lions' heads crased, separated by a bar; and the same bearings, without the bar, appear on the breast of the figure. This has no similarity to



Fig. 35. Tomb with Effigy of a Knight (Sir John Arnot of Fernie) in the Parish Church of Cupar, Fife.

the arms of the Arnots, which are, Arnot of that Ilk, a chevron between three stars (Fifeshire); Arnot of Ferne, Fern, or Fernie, a cadet of Arnot of that Ilk, the same bearings differenced in colour; and Arnot of Balcomie, the same as Arnot, but with a bordure. Among other families, there is the ancient one of Scott of Dalwearie, in Fife, bearing three lions' heads crased, and it is probable that the efficy belongs to a member of that family.

The figure is thickly coated with white paint, and measures 5 feet 9 inches from the top of the helmet to the heel. The helmet is not quite so pointed as would on Scottish effigies of the period, inclining more to the form of the sabade; and the fan-shaped elbow-pieces, long-spiked rowelled spurs, and form of sword belong to about the middle of the fifteenth century. On the bare hands a curious cord-like marking on the surface is probably intended for the veins, and a ring is on the forefineer of the left hand.

ALEXANDER STEWART, EARL OF BUCHAN (?) .- DUNKELD CATHEDRAL.

This interesting monument (fig. 36) stands in the choir of the Cathedral of Dunkeld, which part of the edifice has been restored, and is now used as a church. Being detached from the wall and placed in a corner, the front and one end only are accessible for examination, further than showing that the carvings seen on the front are continued all round.

The common understanding is that it commemorates the notorious Earl of Buchan, son of Robert II., by whom he was permitted to rule over the northern parts of Scotland with a power little short of that of the King himself. In the exercise of this power he showed himself to be "little less than a cruel and ferocious savage, a species of Celtic Attila, whose common appellation of the 'Wolf of Badenoch' is sufficiently characteristic of the dreadful attributes which composed his character, and who issued from his lair in the North, like the devoted instrument of Divine wrath, to scourge and afflict the nation." The most notorious act of his life was the sacking and plundering of Elgin Cathedral, a great part of which, along with the canons' houses and the neighbouring town, he burned down in 1390, on account of a quarrel with the Bishop of Moray, who had given a decision against him. For this sacrilegious act, he had to do penance in the Blackfriars Church at Perth. He died in 1394, and is mentioned as having been married to Eufamie, the widow of Walter de Leslie, in 1382; she afterwards took the veil, dying abbess of the convent of Elcho before 1398, and was probably buried in the Cathedral of Fortrose.

As given in Rogers' Monuments and Monumental Inscriptions of Scotland, 1874, the inscription read:—"Hie jacet Alexander Senescalus, filtus Roberti 1875, Scotorum et Elizabeth More, Dominus de Buchan et Dns. de Badenoch, qui obiit viyesimo quarto die julii." The words given in italies are there

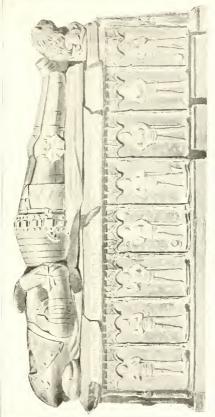


Fig. 36. Tomb of Alexander Stewart, End of Buchan (*), in Dunkeld Cathedrel

stated to be cut in a different kind of stone and comparatively modern, and tis added, the restorer had mistaken the date, as Alexander the Wolf died on the 20th February of 1394. The latter date is also given as the correct one in Mr Chisbolm Batten's Chereters of Deauly Priory, where the date on the tomb is referred to as being wrong.

On the only part of the tomb accessible for examination the inscription now reads:—"aunc. et. dns. d/e badenach qui obiit vige/simo quarto die juli/m (?) qui on (/)." The inscription is on four separate pieces of the same kind of stone: the first part has a dot separating the words, and the last part, besides not carrying out the reading, is narrower than the others. It has evidently been retouched, but it is difficult to accept the supposition that the restorer could have altered the 20th of February to the 24th of July without completely cutting away to a new surface, which does not seem to have been the case.

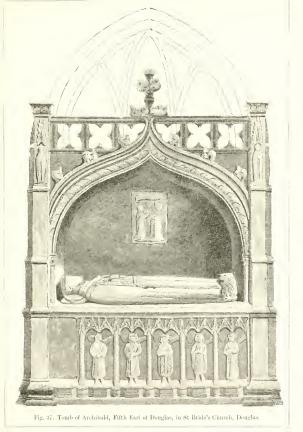
Also, when the style of armour is considered, which, with its fan-shaped clbow-pieces, cannot be assigned to an earlier date than 1420, if indeed so early, there is good reason for doubting the assumption that the tomb is that of the Wolf. It is often easier to demolish a theory than to establish one, and it is difficult to even conjecture who it is that the effigy commemorates: if the date, so far as given on the tomb, is to be discarded as unreliable, and the date of the style of armour recognised, it might with more reason be supposed that it was erected in memory of the more noble John Stewart, Earl of Buchau, who was slain at the battle of Verneuil, and buried in France; but even this is onen to doubt.

The figure measures fully 7 feet from the top of the helmet to the heel of the left foot, and is carved in a greenish kind of marble, similar to a stone which was quarried in Glen Tilt, near Blair Athole, a number of years ago, and meant to be used for fire-places and similar purposes. It is broken in four pieces, which join closely together at the chin, the waist, and below the knees. The left arm is broken; the hands have not been gauntleted; the left foot is broken at the toes, and the whole of the right foot is gone.

Archibald, Fifth Earl of Douglas.—St Bride's Church, Douglas.

In the Kirk of St Bride at Douglas, under a handsome canopy, lies this silent record of the renown gained by the Douglases on the batthfields of France, when its chivalry under the sacred orilamme of St Denis, contended with the invaling armies of England. The figure is that of Archibald, fifth Earl of Douglas, second Duke of Touraine, and Marshall of France (fig. 37). He is habited in his robes of dignity, his left hand holds the baton of office, and the right hand holds the cord which fasters the robe.

He was the son of Margaret, daughter of Robert HL, and Archibald, fourth



Earl of Douglas, who had the title of Duke of Touraine conferred upon him by Charles VII. of France, and who was buried in the church of St Gratian at Touraine, having been slain at the battle of Verneuil.

This fifth earl was the most powerful baron of his time in Scotland, and the revenues from his estates in his own country and in France probably equalled those of his sovereign. He was one of the ambassadors to England treating for the ransom of James I. in 1424, and was appointed lieutenant-general of the kingolom by James II., but only exercised this power for a short period, having lived for little more than a year after being nominated to this high office. He died of a malignant fever at Restalrig, on the 26th of June 1438, or according to Tytler, 1439. A note given by the latter from a Ms. in the Advocates' Library gives:—"Obitus Domini Archibaldi Ducis Turonensis Comitis de Douglas ac Domini Galwidie, apad Restalrig, 26 die mensis Junii, anno 1439, qui jacet apad Douglas."

The canopy has been very much restored, but the figures have evidently not been tampered with. One of the small figures is missing; and although the tomb itself is rather more quaint and elaborate than that of James, the seventh Expl, it is inferior in taste of design and quality of execution

BISHOP ROBERT CARDENY .- DUNKELD CATHEDRAL.

Like so many others, time has dealt severely with the effigied tomb of Bishop Robert Cardeny (fig. 38), in the nave of Dunkeld Cathedral; the sandstone of which it is composed, rendered friable by long exposure to the weather, is mouldered and broken; the featureless angels bear shields which no longer display the bearings of the prelate whose memory the monument was meant to perpetuate; while the bishop bimself bears only the merest fragment of his once elaborate crosser. The mitte has been an imitation of a richly jewelled one, and the dalmatic, showing between the cope and the all, shows traces of a fringed vertical edge. The inscription, now illegible, when in a better state read:—"Hie jacet Dus Robertus de Cardony Epis Dunkeldensis qui...—
... al incarnationem Dni Nuccexx."

Bishop Cardeny laid the foundation-stone of the nave of Dunkeld Cathedral on the 27th April 1406; he is said to have constructed "the second arches vulgariter le blindstorijs—meaning evidently the triforium, and to have glazed all the windows of the choir except one, which appears to have been completed by his successor, Donald Macnachtane." Shortly before his death he built and dedicated a chapel to St Ninian, where his monument was originally placed, but removed to the cathedral subsequent to 1464.

Of the eight shields of various sizes, only three now bear any traces of the arms (fig. 39): that on the centre of the arch shows, quarterly, first a feese chequé, and second a bend between what seems four crosslets; the third and



Fig. 38. Tomb of Bishop Robert Cardeny, in Dunkeld Cathedral.

fourth quarters are quite gone. The small shield on the dexter side of the momment, beneath the arch label, bears a small portion of, probably, a chevron engrailed, and, less definitely, a star, with an illegible fragment of a crest. The small corresponding shield on the sinister side bears a mitre over a shield charged with a double chevron engrailed. The arms on the bease are quite con-

There is a fragment of the effigy of another prelate lying in the floor of the choir, consisting merely of the trunk. It is assumed to have been the effigy of Bishop Sinclair, who held office from 1312 till his death in June 1337. On account of his valour and patriotism he was styled by Eruce as "his own bishop," but on the death of that monarch he forsook his allegiance to the dynasty. In 1332 he assisted at the coronation of Baloi, and in the following year subscribed the instrument by which the Scottish Parliament surrendered to the English monarch the national independence. He built the choir of the eathed val, and a monument for himself.



Fig. 39. Shields of Arms on the Monument of Bishop Cardeny.

SIR JOHN FORRESTER (THE FIRST).

Two family monuments of the Forresters are in the chancel of Corstorphine church, near Edinburgh.

The property of Corstorphine was acquired from Gilchrist More, brother of William More of Abercorn, in August 1376, by Adam Forrester, a wealthy merchant of Edinburgh, of which he was provest in 1373. He was Sheriff of Lothian in 1383, and stood high in the estimation of King Robert HL. Sometime about 1376 he is known to have creeted a chapel dedicated to St John, adjoining to, and probably connected with, the parish church.

The first Sir John Forrester was brought up at court, and succeeded his father as depute chamberlain of the southern division of the kingdom. He obtained a charter to the lands of Corstorphine from Sir William More of Abercom, then the superior, on the 22nd March 1302, probably on the occasion of his marriage. After 1408 he acted as depute chamberlain of the whole kinglou till 1425; in 1416 he was named one of the commissioners to treat with England for the redemption of James I, so long held in captivity in England; in 1421 he was made Lord Privy Scal under the regency of Murdoch, Duke of Albauy; and in 1424 was one of the hostages given for the King's ransom. On the King's return to Scotland, a new office was created for him, under the designation of Magister Hospitii, and in the following year he was made Lord High Chamberlain. We also find his name among those of twenty-one jurymen at the trial of Walter Stewart, eldest son of the Duke of Albauy, which was presided over by the King at Stiring on the 24th May 1424.

In 1424 and 1429, by means of endowments by himself and his mother, the widow of Adam Forrester, the buildings at Corstorphine were creeted into a collegiate church, and the establishment was confirmed by papal authority in 1440, in which year he died, and was buried in the choir of the church.

It is stated in one place that he was married twice, and at another, thrice. His wives were, Margaret (f), Jean Saintelair, daughter of the first Earl of Orkney, and Marian Stewart, daughter of Sir Walter Stewart of Garlies, and relict of Sir John Stewart of Jedworth. The tomb is surmounted by the Forrester arms; on the front, the five coats show first, third, and fifth, Forrester; second, Forrester impaling Saintelair; and fourth, Forrester impaling a bend engrailed over the Stewart fesse. The Forrester bearings also appear on the breast of the Knight.

The whole monument is of freestone,

SIR JOHN FORRESTER (THE SECOND).

The effigies of Sir John Forrester and his wife Marion Stewart, Lady Dalawinton, occupy a portion of the same wall containing the monument of his father, the first Sir John. His sasine in the estate of Corstorphine is dated 15th September 1436, and he succeeded his father in 1441. He seems to have been better fitted for the lattlefield than the cabinet, as he does not appear to have held any civil appointment, and attained to some distinction in military affairs, more particularly from the part which he took with the Earls of Dougles with the Chancellors Crichton and Livingston. During these, along with William, Earl of Douglas, he led the troops which besieged and demolished Crichton's casted of Barnton, in Mid-Lothian, in 1446. The Chancellor Crichton and his vassals, in the same year, retaliated by overrunning the lands of Corstorphine, and levelling Forrester's house with the ground. He died on the 15th September 1434.

The tomb is surmounted by the Forrester arms and a fragment of the crest; the same arms, borne by a cherub, appear at the terminations of the label over the monibed recess; on the front of the tomb the three shields show on the first and third, Forrester; and the second, Forrester impaling a bend engrailed.

The figures are carved in white marble, and the parts remaining are in a much better state of preservation than the companion tomb, owing, no doubt, to the material; the execution is also superior, and the armour is of a more delicate form. As in the case of so many other monuments of the kind, these are said to have been mutilated by a party of Crouwell's "saints" when they occupied Corstorphine after the battle of Dunbar, the Sir John Forrester of that time having shown his hostility by resisting the English.

[The three Forrester monuments in Corstorphine church have been figured from drawings by W. P. Burton, in connection with a paper on the subject by David Laing in the *Proceedings*, vol. xi. p. 353, plates xii.—xiv.]

SIR KENNETH MACKENZIE.—PRIORY CHURCH, BEAULY.

Beauly Priory owes its foundation to John Bisset, the proprietor of the district, in 1230, and received many additions by successive Lords Lovat. It has, as usual, for many years remained a roofless ruin, and is now used as a burying-place, principally by leading families of the Frasers, Chisholms, and Mackenzies of Gairloch. It contains the efligy and tomb (fig. 40) of Sir Kenneth Mackenzie of Kintail, sometimes known as Kenneth-a-Ehlair, seventh Baron of Kintail. He was knighted by James IV, and was the first of his family buried at Beauly, all his predecessors having been, it is said, buried at Iona, although no trace of the tombs of the prior lairds are found among the descriptions of that island. He married a daughter of Lord Lovat, and seems to have been powerful enough to hold his own against, and at the same time take from, his warlike neighbours, such as Ilugh Rose of Kilravock, the Macdonalds of the Isles, and the Clan Chattan.

The inscription on the tomb, which is now quite illegible, is given as having read:—"Hic jacet Kenitus M kinyth dus de Kintali q obidivi tid le Fobraura a.d. M.CCCLXXXI". It is stated, however, that he died in February 1492, and in September 1491 he is named as a witness—Kinzocht McKenyecht of Kintaill. The arms on the tomb are quite illegible, but the deer's head at the termination of the moulding may have some connection with his bearings, a portion of which consisted of a hard's head cabossed, attired with ten tynes.

The construction of the tomb is very similar to that of the Bishop at Fortrose, from which it may have been copied (compare fig. 41 with fig. 23), but very inferior in design and execution. The mail on the neck passes diagonally downwards towards the right shoulder under the chin. It is of common freestone, and, like several others, still exposed to the weather.

Effigy of a Stewart.—Elgin Cathedral,

This monument (fig. 42), in the south transept wall of Elgin Cathedral, is

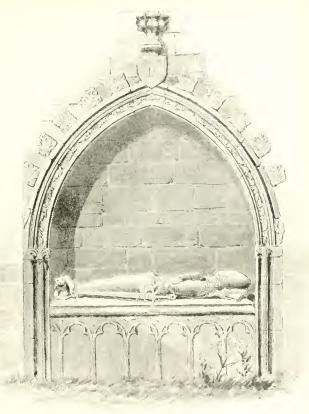


Fig. 40. Tomb with Effigy of Sir Kenneth Mackenzie, in the Priory Church, Beauly VOL, XXIX. $$2\,{\rm \,B}$$

usually assigned to Alexander Stewart, the second son of James II., who created him Duke of Albany, inheriting from his father the earldom of March, besides

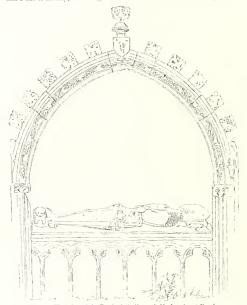


Fig. 41. Elevation of the Tomb of Sir Kenneth Mackenzie, at Beauly.being Lord of Annandale and of the Isle of Man. The figure is in the costume



of the fifteenth century, which is also the period of the architectural ornament surrounding it.

The historical account of Alexander Stewart, Duke of Albany, represents him as a bold, determined, nascrupulous, and ambitious man; ready to sacrifice the independence of his country, and willing to wrest the crown from his brother, James 1II., by the most dishonourable means. After intriguing for these purposes in France and England, although dealt heineitly with by his brother, he entered Scotland from England with an armed force, assisted by the Douglas, and was defeated by a body of the King's troops. Douglas was taken prisoner, but Albany escaped by the flectness of his horse, in 1484, and fled to England, from whence he passed over to France, where he was accidentally slain in a tournament a few years later.

The inscription on the edge of the tomb, unfortunately, is quite illegible. The fact that he died in France raises a doubt as to whether the monument was erected to his memory, although such a custom was not without precedent; and this doubt is strengthened by the fragments of heraldry on the tomb. These do not correspond with the bearings of this Stewart, as given by Nisbet, who says ;- "King James II. of Scotland created Alexander, his second son, Duke of Albany, Earl of March, Lord of Annandale, and of the Isle of Man; upon which account he carried the arms of those dignities, quarterly, first, the arms of Scotland; second, gules a lion rampant argent within a bordure of the last, charged with eight roses of the first, for the earldom of March; third, gules three legs of a man armed, proper, conjoined at the centre (&c.), for Man; and fourth, or, a saltire and chief, gules, for the lordship of Annandale," With regard to the shield on the dexter side of the tomb, the first half bears a fesse with what appears like two roses in chief and an antique erown beneath, impaling a fesse with two antique crowns in chief, the lower part being mostly gone. The latter corresponds so far with the arms of the old lords and earls of Garioch, who carried a fesse cheque between three antique crowns. This bearing was carried quarterly, first and fourth, with second and third a bend between six cross crosslets fitched for the Earldom of Mar, by Alexander Stewart, a natural son of Alexander Stewart of Badenoch, the Earl of Buchan, fourth son of Robert II., who married Isabel Douglas, Countess and heiress of Mar, being in her right Earl of Mar and Lord Garioch, who died in 1436. With regard to the sinister shield, the three buckles appearing in chief were borne by some Stewarts on account of their maternal descent.

When Alexander Stewart, Duke of Albany, was compelled to acknowledge his treasons before the parliament held in Elinburgh in 1482, and laid down his office of Lieutenant-Governor of the realm, he probably retained his other dignities as well as that of the Wardenship of the Marches; consequently one would expect the arms of some of these on the tomb.

The ettigy measures 5 feet 9 inches, and is of freestone.

Lairds of Callender.—Falkirk Church.

Regarding four elligies (figs. 43–46), in the parish church of Falkirk, the following modern inscription is placed beside them, which probably contains all that is known of them:—"These effigies, believed to be memorials of the carliest feudal lords of Callender, originally lay at the South Transept of the church in 1810 when the church was rebuilt; that transept being taken down, these figures remained exposed to the weather, and to injury from the feet of passengers, until April 1852, when they were placed on this monument by William Forbes, who, as Proprietor of the E-tates of Callender, feels himself called on to protect from further injury these Memorials of the Former Barons." They were placed in the vestibule of the church, but further alterations in 1892-93 necessitated their removal again, to be replaced in a crypt, under better light.

The figures are in full relief, and probably date from the late fifteenth century; the knights measure 6 feet 3 inches and 6 feet 4, and there is the merest suggestion of a shield on the breast of the first.

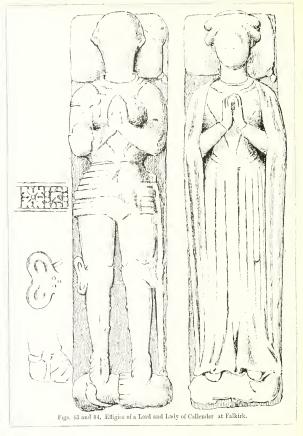
THOMAS GORDON OF RUTHVEN.—RUTHVEN CHURCH.

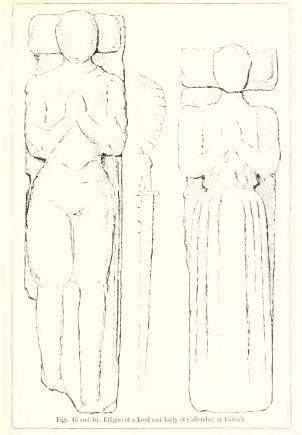
A short distance from Rothiemay station on the line of railway between Keith and Aberleen, the ruin of Ruthven kirk contains the effigy of Thomas Gordon (fig. 47), locally known as Tam of Ruthven, within a rude semicircular arch. Tradition asserts that he was slain in a fight with the Abbot of Grange about 1460; and on the northern shoulder of the Lesser Balloch, on the march dividing Aberdeen and Banfishire, a cairn is alleged to mark the spot where the conflict took place.

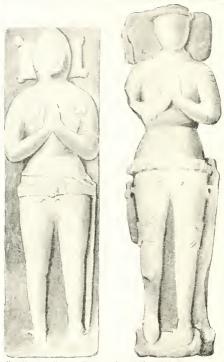
This figure, like so many others, lay a long time on the ground, uncared for; it is remarkable as being the only effigy which I have met with in Scotland possessing mamilieres—one a circular and at one time ornamented dise, and the other a small shield. It corresponds tolerably nearly with two of the effigies in Elgin Cathedral. The girdle has been of the usual ornamented kind; there are no vestiges of inscription or armorial bearings; and it is of common freestone, measuring 6 feet 3 inches over all.

SIR SIMON CARRUTHERS.-MOUSWALD CHURCH.

This elligy (fig. 48), very much destroyed, lies outside the parish church of Mouswald, near Dumfries. He was formerly accompanied by his lady, and her last remains are said to have been utilised by the housewives of the locality, who found the stone useful for polishing their doorsteps.







Figs. 47 and 48. Effigues of Thomas Gordon of Ruthven, in Ruthven Church, and Sir Simon Carruthers, at Mouswald Church.

WILLIAM DE LA HAY.—ELGIN CATHEDRAL.

The now almost quite illegible inscription on this tomb (fig. 49) reads, "Hie jacet Wills de la Hay quondam dominus de Lochloy qui obiit viii die mensis decembris anno Domini MCCCCXXI." His family are stated to have held the house, park, and barony of Inshoch for upwards of four hundred years.

The effigy has upon the breast three shields—the paternal bearings of the family of Ifay; and although at present appearing as a detached monument, appears as if it had at one time been recessed.

Douglas of Dalkeith.—Dalkeith Church.

In the ruined and roolloss aisle of Dalkeith old church, the former burialplace of the ducal house of Buccleuch, are the two effigies (fig. 50), essily identified by their arms as a lord and lady of the Douglas family. They are executed in a common reddish sandstone, much dilapidated and broken, and the parts clumsily placed together. The male figure is interesting as being one of the few Scottish efficies in civil costume; the bare head is encircled by a flat, enriched band; the neck of the dress has been embroidered with ornament; a chain with oval links passes over the shoulders; and the arms, with a lose covering, have long pendent sleeves. The lady's dress consists of an upper and under robe, with a collar (once ornamented) falling from the shoulders over the boson; she wears a crepin, which, with the style of architectural details so far remaining, suggests the second half of the litteenth century.

The arms on the base, surmounted by jewelled coronets, show first the two Douglas stars in chief with the rest obliterated, and second the same impaling the Scottish lion; these are repeated on the other side, and also on the end of the tomb on lozenges covering part of the double cu-hions on which the heads rest, the impaled arms being attached to the efficy of the lady.

The base is almost entirely buried in the soil, which has been dug away in order to expose the front and back, and the ends are rudely patched up with odd slabs of stone. The entire length of the efficies is 6 feet 8 inches, including the cushions at the beads and the animals at the feet.

ALEXANDER GORDON, FIRST EARL OF HUNTLY.—ELGIN CATHEDRAL.

The first Earl of Huntly is known in history as Sir Alexander Seton, the surname having been changed to Gordon by his son and successor. He was recated Earl of Huntly in 1449, and was buried in St Mary's aisle of Elgin Cathedral, the burial-place of the ducal house of Gordon, in 1470. Immediately after, and in consequence of being promoted to the high office of Lieutenant-General of Scotland by James L, he entered upon the task of putting down the rebellion of Crawford and Ross. For this purpose he raised

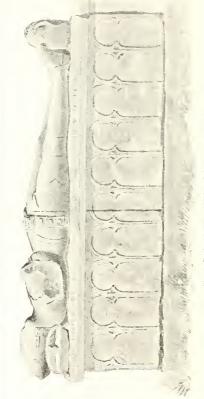


Fig. 49. Tomb with Effigy of William de la Hay, in Elgin Cathedral.



Fig. 50. Tomb with Efficies of a Lord and Lady of the Douglases of Dalkeith, in Dalkeith Churell.

a large force in the northern counties, with which he encountered and inflicted a crushing defeat on the ferocious Earl of Crawford, "the Tiger," as he was called, on a level moor behind the town of Brechin in 1452. In this engagement the Tiger's brother and about sixty lords and gentlemen were slain on Crawford's side, while on the other the Lientenant-General mourned for the deaths of his two brothers, Sir William and Sir Henry Seton. About the time when he was thus engaged, the Earl of Moray devastated the estates in Strathbogie of the Earl of Huntly, who in retaliation, after his victory at Brechin, fell upon the fertile county of Moray, and razed that half of the city of Elgin which belonged to his enemy. About a year after his defeat, the Tiger having made peace with Huntly and others, with a few of his miserable followers, barefooted and wretchedly clad, threw themselves on their knees before the King during one of his journeys in the North, when he was pardoned and restored to his former dignities.

The remains of the effigy (fig. 51) represent the Earl in a plain dress with hanging sleeves, a narrow waist-girdle knotted at the centre, and a poniard at his right side: the feet have rested upon two animals. The inscription, which seems to have been at one time retouched, reads:—"hie jacet nobilis et potens dis Alexander Gordon primas comes de Huntile dis (on the front, and continued on the back) de gordone et hazelwood qui obiit apad huntile 15 Julii 1470." He has been by some writers designated Lord Gordon, and carried for has arms, first and fourth Seton, second and third Gordon, still keeping the surname of Seton. His son George, having assumed the surname of Gordon, placed the arms of that name on the first quarter and Seton on the third. The arms on the front of the tomb correspond exactly with those on the seal of Alexander, third Earl of Huntly, who followed his King to Flodden, and are, first three boars' heads for Gordon, second three lions' heads crased and langued for Badenoch, third three crosscents within a tressure for Seton, and fourth three cinquefolis for Fraser, the supporters being two deer-homois,

The monument is quite detached from the wall; and from the circumstances that the arms are not placed in the centre, and the shield of a form suggestive of a later period than 1470, it may be inferred that the body of the tomb at least is a restoration. The only peculiarity of the dress, the long perforated sleeves, does not correspond, so far as I have been able to find, with any other example; in a shorter form, and with only one perforation, they appear on a figure of Lawrence Colston, who died in 1550, in Rolleston church, Staffordshire, and another English figure, of Thomas Noke, yeoman of the Crown, who died in 1567.

SIR JOHN HOUSTON.—HOUSTON CHURCH.

In Rogers' Monuments and Monumental Inscriptions of Scotland (1871)



Fig. 51. Tomb with Effigy of Alexander Gordon, First Earl of Huntly, in Elgin Cathedral.

it is stated that "in the aisle of the Red Friars Monastery a magnificent tomb contains under a canopy two statues the size of life (figs. 52 and 53): one is supposed to be Sir Patrick Houston of that Ilk, who died in 1440; the other Sir Patrick's wife, Agnes Campbell, who died in 1456," the inscription on the tomb being then illegible. The description must have applied to a date long anterior to the publication of that book, as the old parish church was replaced by the present one not many years later, previous to which the figures were allowed for a great many years to lie unprotected in the open air, playthings for the village children. They now lie beside each other, without any canopy or base, in a recess constructed for them in the present church, with the modern inscription "John of Houston, Lord of that Ilk . . . and Agnes Campbell His Spouse, who died Anno 1456." An old inscription connected with the family, also at Houston church, refers to Anna Hamilton and Patrick Houston, of the sixteenth centure, which evidently does not apply to these figures.

The two effigies, which have been slightly re-cut in parts, very closely resemble those at Renfrew, the ladies being almost identical. Among the English effigies, that of Sir Thomas Cawe, in Igham church, in a general way corresponds to the Houston knight, a chief difference consisting in the Scottish figure having the hands pressed together on the breast, while the English one has his right hand on the breast and his left on the hit of his sword.

The shield on the breast has traces of the Houston arms, very much defaced

—a chevron chequé between three martlets.

GILBERT MENZIES. - MARYCULTER CHURCH.

The remote and solitary churchyard of Maryeulter possessed, till recent years, the effigies of Gilbert Menzies of Fitfoddels and his wife, Marjory Liddel, who lived in the fifteenth century (figs. 54 and 55). The broken fragments of the arch wherein they were originally placed are now a mass of rubbish, the figures having been removed to the church of St Nicholas in Aberdeen, where they lie on the sills of adjacent windows.

The knight's head rests upon a massive tilting-helmet, and the style of armour belongs to the beginning of the sixteenth century. His figure measures 5 feet 10 inches, and the lady about 2 inches less.

INNES OF INNESMARKIE.—ELGIN CATHEDRAL.

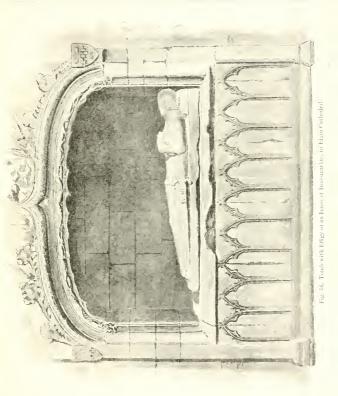
On the same wall in Elgin Cathedral, to the left of the monument attributed to Alexander Stewart, Duke of Albany, is the supposed tomb of Robert Innes of Innermarkic, or Innesmarkic, who died in 1482 (fig. 56).

There are reasons for concluding that this monument is composed of parts not originally connected with each other; the effigy is very much too small for the recess in which it is placed, and the top of the base at the back, close





Figs. 54 and 55. Effigies of Gilbert Menzies of Pitfoddels, and his wife, Marjory Liddel, in Maryenlter Church.



2 0

to the wall, is splayed like the front, where the inscription has been. With regard to the two shields, the one on the dester side seems to have been quartered, showing on the fourth quarter a fesse chequé, which also appears on the sinister shield. According to Nisbet, the Innes of "Innesmarkie" bearings are three stars of five points within a bordure indented, Innes of that Ilk three stars of six points waved, and Innes of Blaitton, a cadet, a fesse between three stars.

James Innes of that Ilk was armour-bearer to King James III., from whom he received a grant of lands in Elginshire.

The effigy measures 5 feet $9\frac{1}{2}$ inches, and evidently belongs to the second half of the lifteenth century.

LORD BORTHWICK.—BORTHWICK PARISH CHURCH,

The family of Borthwick came, it is stated, from Hungary, and its first representative entered Scotland in the train of the Saxon Princess Margaret, in the reign of Malcolm Cammer. They first obtained lands in Aberdeenshire, and proceeding south, became possessed of extensive territories in the counties of Dumfries, Schkirk, Rosburgh, and Haddington, besides residences in several of the towns in Scotland, Borthwick's Close in Edinburgh being an instance.

The first of the family appearing in history with the title of Lord Borthwick was William, whose youthful heir was created a knight by James I. at
the same time that his twin sons received that honour, and were baptized in
1430. He obtained a charter under the great seal, authorising him to build a
castle upon the lands of Lochwarret, which, under the name of Borthwick
Castle, afterwards became the chief seat of the family. As Sir William Borthwick he sat on the assize of the Duke of Lennox and Murdoch Duke of
Allany and his son in 1424, and married a daughter of the house of Douglas,
dving prior to 1448.

According to Nisbet, however, the first Lord Borthwick was not dignified with that title till the beginning of the reign of James IL, the charter being dated January 8, 1458, and we find what is probably the same William Lord Borthwick granting a charter to his second son on the 27th June 1495. It is probably this Lord William whose elligy, with that of his lady, lies in Borthwick parish church, although the costume is a little later than the last-mentioned date.

The figures are (fig. 57) scalpfured in white marble, now much darkened by time, and the arched recess in which they are placed is a restoration, with slight portions of the old work cleaned. The figure of the lady is not in as good condition as that of her husband. Some of the details of the armour and dress are shown in fig. 50.



Fig. 57. Effigies of Lord Borthwick and his Lady, in Borthwick Church.

JOHN COLLISON.-ST NICHOLAS' CHURCH, ABERDEEN.

Among the group of effigies in the church of St Nicholas in Aberdeen are

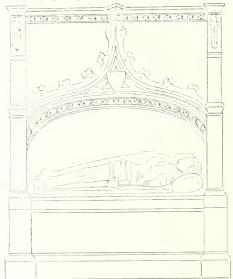
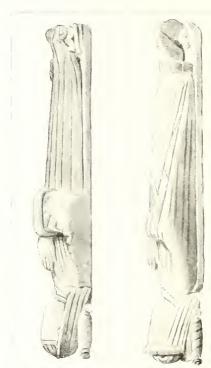


Fig. 58. Elevation of the Monument of Lord Borthwick in Borthwick Parish Church.

those of John Collison, who was provost in 1521, and his wife, Margaret Setoun (figs. 60 and 61). The provost measures 5 feet 10 inches, and his wife



Fig. 59. Details of Edigies of Lord Borthwick and his Lady, Borthwick Cloud



Figs. 60 and 61. Effigies of John Collison and his wife, Margaret Setoun, St Nicholas' Church, Aberdeen.

2 inches by the having an inch and a half of this added to his head. The costumes present no features of interest.

ALEXANDER IRVINE OF DRUM.—ST NICHOLAS', ABERDEEN.

The efficies of Alexander Irvine of Drum (fig. 62) and his wife Elizabeth de Keith lie in what is known as Drum's aisle in St Nicholas' Church in Aberdeen. The lady is similar to the wife of Menzies of Pifoldels in the same church; the execution is more mechanical than artistic; and the costume is early sixteenth contains.

A Sir William Irvine is mentioned as being secretary and armour-bearer to the Bruce, from whom, on account of his fidelity, he received the lands of brum.

Sude Sir Alexander Irving,

was in command of the Lowland forces, and met his death, after distinguishing himself, at the battle of Harlaw in 1411. This Sir Alexander was succeeded by his brother, also named Alexander, who was one of the commissioners sent to treat for the ransom of James I., and to bring him home from England; and it is possible that this is his effect, although the costume is a little later.

The elligy is in good condition; the hair is very regular, the brows closely knit in wrinkles, a tuft of beard on the chin, and a ring on the middle finger of the left hand. Like the others in the same church, it is of common stone, and measures 6 feet 7 inches over all.

LORD SETON. SETON CHAPEL.

The old church close to Seton Castle contains the effigies of a lord and lady of Seton, which, with their architectural setting, have as yet escaped the operations of the restore (fig. 63). The construction of the tomb differs slightly from others, having a recess under the figures, which may have at one time contained arms, &c; and in front of this, the base mouthing of the wall is kept well out so as to leave a space in front of the tomb. As now placed, the two figures close to each other occupy about two inches more than the depth of the recess, and the wall behind does not seem to have been thickened; and a rule etching by Charles Kirkpatrick Sharpe attached to Maithand of Lethington's History of the House of Septona, 1829, shows the figures, one above and the other below. The church contains two or three empty niches. Originally a parish church, it is now the private property of Lord Wemps, and used as a family burying-place.

Among the Setons buried in the church were, Alexander, who in time of Robert II. "had levit to gude age honourable"; and Katherine "Sinclare," wilow of the first Lord Seton, who "biggit ane yle on the south syd of the parache kirk of Seytoun, of fine astler; pendit and theikit it wyth stane;

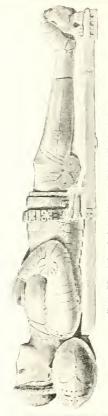


Fig. 62. Effigy of Alexander Irvine of Drum, St Nicholas' Church, Aberdeen.

Fig. 63. Tomb with Effigy of Lord Seton, Seton Chapel,

wyth ane sepulture thairin quhair sche lyis; and foundit ane priest to serve thair perp-tuallie." The husband of this lady "was in the tyme of King Robert the Thryd," and was laid at rest "in the Cordelere freiris in Hadingtonn; quhamto, weklie he fundit sex laid of colis, to be tame of his coilput of Trement, and fourtye schillingis of annuell, to be tame of the Barnis

The church was benefited by other succeeding Setons, but I have been unable to identify the monument. It evidently belongs to the early sixteenth century, and is of the same type as two of those in the church of St Nicholas in Aberdeen. The figures are of a close-grained freestone, with a highly finished surface, which is peeling off, and the knight measures 5 feet 10 inches to the toes. The effigy of the haly being flatter, is in front almost concealed by the knight, and is very similar to those of the Borthwick and Pitfoldels ladies.

VII.

ON HUMAN AND ANIMAL REMAINS FOUND IN CAVES AT OBAN, ARGYLLSHIRE. By Professor Sir William Turner, D.C.L., F.R.S., F.S.A. Scot.

Within my recollection four caves have been opened into in the cliff which overhangs that part of the town of Oban which is built on the ancient raised sea beach. Evidence of human occupation at some previous distant period was obtained, and human and animal bones, with objects worked by man, were discovered. As specimens from each of these caves have been sent to me I propose to give an account of my examination of the remains. It is well to give to each cave a descriptive name.

The Mackay Care.—This cave was exposed in 1869 by workmen in the employ of Mr John Mackay, who were quarrying for building purposes the north-west face of the cliff, situated at the north end of Oban Bay, near Burn Bank House, at the corner where Nursery Read now enters Strathaven Terrace. I visited the cave in the autumn of that year, when Mr Mackay pointed out to me that the cave consisted of an entrance passage 4 feet high and 9 feet long, and of a chamber 11 feet high and about the same in depth. The passage sloped from the entrance down to the floor of the chamber, which was thus on a lower plane than the mouth. The mouth was closed by an embankment of earth, 8 to 9 feet thick, in which beech trees were growing; none of which had attained much size. It had probably slipped down from the cliff above. A chink wider below, but which higher up was not larger than would admit the blade of a knife, was in the roof of the cave. The walls were in places covered by a white calcareous deposit from one to two inches thick. The floor of the cave, which was formed of the rock, was covered by about 3 feet of earth, in which bones and other objects were found. Some of the objects were at the surface of the layer of carth, others were in its substance, but no definite stratification was recognised.

In 1871 I gave a short account of the cave and exhibited its contents at the meeting of the British Association in Elinburgh. A number of flint nodules and flakes, with two worked implements, were found, which





Figs. 1, 2. Scraper and Scraper-shaped Knife of Flint.

I recently submitted to Dr Joseph Anderson, who has kindly given me the following note on their characters.

"Scraper of flint (fig. 1), 2\frac{1}{8} inches in length by 1 inch in breadth across the flat face, and \frac{1}{4} inch in thickness, increasing slightly towards the butt end, which shows part of the bulb of percussion on its flat face. The rounded nose of the scraper is carefully bevelled, and shows marks of use, and probably of re-touching to bring up the blunted edge.

¹ Report of the Edinburgh Meeting, 1871, Transactions of Sections, p. 160. The contents of this cave are referred to in an excellent paper, "On a Cave at Borness, Krikendhrightshire," by Messrs Corrie, Bruce Clarke, and Hunt, Proc. Soc. Antiq. Soct., vol. x. p. 476, 1874.

"Scraper-formed knife of flint (fig. 2), about I inch square, the rounded cutting edge carefully dressed to unusual sharpness, and the butt end showing the bulb of percussion on the flat face.

"Triangular flake of flint, 2 inches in length by $\frac{3}{4}$ inch in greatest breadth near the butt end, somewhat concave on the flat side and with a corresponding convexity in the direction of the length of the ridged side. Both edges show very distinct traces of use as a side-scraper.

"Thirteen flakes and chips of various sizes, none, however, exceeding 2 inches in length, or showing secondary working."

Limpet shells were also present; also fragments of blackened and calcined bones, which were too small to permit of identification. Bones or teeth of the following mammals have been recognised: roe and red deer, dog, fox, otter, ox, pinemarten, goat, hare, water vole. The long bones of the larger mammals were broken and the marrow cavity exposed. Many of the fragments had pointed ends and sharp margins, but they did not show rubbed or smooth edges or surfaces, such as they would have acquired if they had been in use as tools. Some of the bones were scratched and abraded on the surface, as if they had been gnawed. Probably the bones had been broken to extract the marrow, but none of the human bones had been so treated. A few bones of birds were also present.

Two human skeletons were obtained. They were forwarded to me by steamer, which, unfortunately, was wrecked on the voyage to Glasgow. As the box was submerged in the salt water for some time before it was recovered, the skulls were so softened and injured that I was unable to obtain a proper restoration of the crania. Many of the other bones of the skeletons were also broken.

The skulls were those of an adult man and a child. In the child's skull the milk molars, though much worn, were in place, and the upper and lower first permanent molars had crupted; the age was probably about eight. The skull presented, in the thickness and smoothness of the bones of the vault, and in the comparative simplicity of the sutures, the characters of a child of about that age. The frontal suture had not ossified; some small Wormian bones were in the hambdoidal suture, and an epipteric bone was present in each pterion. The dimensions, so far as the skull admitted of measurement, are given in the following

Table. It will be seen that the cephalic index was 77.8, so that the skull was mesaticephalic.

OBAN CAVES.

	MacArthur Cave.			Mackay Cave		Distillery Cave.		
						-		
Collection,	Α.	В.	. C.				4 7 7	
Age,		Adult,	Adult.		Adult.	Adult.		
Sex,	М.		F (t).		М.	M.	F.	
Glabello-occipital length, .	183	205		171				
Basi-bregmatic height,	139							
Vertical Index,	76							
Minimum frontal diameter,	99	102		97				
Stephanic diameter,	111	121		115				
Asterionic diameter		115		103				
Greatest parieto-squamous								
breadth	138 ap.	144		133				
Cephalic Index,	77-1 ap.	70-3		77.8				
Horizontal circumference, .	520	564		490				
Frontal longitudinal are, .	127	140	}	242				
Parietal	133	135	1	242				
Occinital	112							
Total	372							
Vertical transverse are.		316		285				
Length of foramen magnum,				34				
Basi-nasal length,	103							
Basi-alveolar length,	97							
Guathie Index,	94-2							
Intermalar breadth		123						
Nasio-mental length,	114							
Nasio-alveolar length,	67							
Nasal height,	48							
	23				23			
Nasal width,	57 9				20			
		4:2						
Orbital width,	40							
Orbital height, .	33	31						
Orbital Index,	825	73.8			53			
Palato-maxillary length, .	53							
Palato-maxillary breadth, .	60				59			
Palato-maxillary Index, .	113.7					- 1.00		
Symphysial height, .	30	35	30		29	. 27	150	36
, Coronoid ., .		66			65	61	61	- 2
Condyloid Gonio - symphysial length, Inter-gonial width,	60		60		67	67		5:
Gonio - symphysial								
ength,	85	91	80		94	90		8
Inter-gonial width, .	91	96	92		107	101		
Breadth of ascending								
ramus	35	4.4	32		1 10	40		41

The adult skull was much broken, and the bones had softened during the immersion in salt water, so that many parts of the vault had ernumbled away, and could not be restored to permit of the length, breadth and height being taken. The masculine character of the skull was determined by the prominence of the left supraorbital ridge in the part of the frontal bone which had been preserved, by the projection of the inion and occipital and temporal curved lines, and by the size of the lower jaw. The man had apparently been in the prime of life, as the teeth were only partially worn on the surface of the crown and there was no decay. The palate was highly arched.

With the exception of the right tibia, all the long bones of the limbs were imperfect. Sufficient of the left tibia had been preserved to show that it resembled in form the right bone. They were both examples of platyknemia, i.e., the shaft laterally flattened and with a narrow posterior surface. In the right tibia, the measurements being taken in the plane of the nutrient foramen, the index of platyknemia was 63.6, in the left 65.6, figures which closely approximate to the mean index of the tibia from neolithic interments in France. In the right tibia the antero-posterior curve of the external condular articular surface was slightly convex. Retroversion of the head of the tibia, such as has been seen in neolithic skeletons in France and Belgium, was not observed. The articular surface for the astragalus was prolonged for a short distance on to the front of the lower end of the tibia. Both the right and the left astragalus had a smooth, apparently articular area, for the front of the lower end of the tibia, on the upper surface between the scaphoidal and usual tibial articular surfaces, such as has been described by Professors Arthur Thomson and Havelock Charles in races who assume a squatting attitude when at rest.1

The right femur had lost the head, and the left the condyloid extremity. The shafts in both were preserved and showed a very interesting modification in shape. In my Report on the skeletons collected by H.M.S. "Challenger," published in 1886, I called attention? to a peculiar flattening of the upper third of the anterior surface of the

Journal of Anat. and Phys., July 1889, Jan. 1890, Oct. 1893, April 1894.

² Report of Challenger Expedition, part xlvii, p. 97.

shaft in five Maori thigh bones, in femora from Oahu, one of the Sandwich Islands, and in some Lapp and Esquimaux skeletons, and I stated that an infra-trochanteric ridge, which projected outwards, extended downwards from below the outer side of the great trochanter. I also referred to these femora from the Oban cave as possessing similar characters, and stated that the external infra-trochanteric ridge was distinct from and in front of the gluteal ridge which leads from the great trochanter to the linea aspera. The antero-posterior flattening widens the bone transversely, and obliterates the outer surface of the shaft in the upper third or fourth, so that the bone loses its prismatic form in this region. The external infra-trochanteric ridge gives a defined outer border immediately in front of the gluteal ridge, and the inner border is also more prominent than in an ordinary femur. Since the publication of my Report several Maori femora have been added to the collection in the University Museum in which closely identical characters can be seen. In 1893 my friend, Professor J. II, Scott of the University of Otago, gave an admirable account 1 of the skeleton of the New Zealand Maoris and the Morioris of the Chatham Islands, and recognised this character as common to the femora in both sets of skeletons. In the same year Dr Rudolf Martin of Zurich published a description of the skeletons of the people of Tierra del Fuego,2 in which he distinguished the same flattening of the shaft of the thigh bone.

The memoir which has, however, the greatest interest in connection with the shape of the femur in the cave dwellers was published in 1891 by Dr Manouvrier of Paris.² He describes in it femora from the neolithic burials at Créey-en-Brie, Nanteuil-le-Houdouin, and other dolmens, and a number of ancient femora from the Canary Islands, which showed the antero-posterior flattening in a very marked form, and to this condition he has given the name platymery (flat femur). He has also proposed a method of obtaining a numerical expression

Transactions of New Zenland Institute, 1893, vol. xxvi

⁴ Archie für Anthropologie, 1893, vol. xxii. p. 155.

² La Platymerie, Extrait du Congres international d'Arthrep, et d'Archéelour préhistoriques, Paris, 1891. Also Etade sur les l'arrations morphologiques du carps du Féaure, Paris, 1893.

of the extent which this flattening has reached. He takes the anteroposterior diameter of the shaft where it is the least, i.e., 3, 4, 5, or 6 cm., as the case may be, from the small trochanter, and then he measures the transverse diameter at the same plane. If the transverse diameter be regarded as equal 100, the relation of the antero-posterior to it may be obtained by the following formula:—

 $\frac{\text{ant.-post. di.} \times 100}{\text{transverse di.}}$.

The product is the index of platymery.

The mean index of modern Parisians has been found by Manouvrier to lie between 80 and 100, whilst the neolithic femora of Nanteuil-le-Hondouin were 65.8, those of Creey-en-Brie were as low as 56.4, whilst some of the ancient Canary Islanders were from 58.8 to 64.9. In the specimens from the Mackay cave at Oban, the shaft of the right femur had an antero-posterior diameter 20 mm.; a transverse diameter 34 mm.; whilst in the left bone the antero-posterior diameter was 22 mm, and the transverse was 39 mm., which gave a platymeric index to the right thich bone 58.8 and to the left 56.4. These figures are sufficient to show that the platymeria was very strongly marked. Professor J. II. Scott gives 64.3 as the mean index in fifty Maori femora which he has measured, and the range of variation is from 81.3 to 54.8. Dr Rudolf Martin states that the mean index of platymery in the people of Tierra del Fuego was 66.9. In both the femora from the Oban cave, the linea aspera was well marked in the middle third of the shaft of the hone.

There can, I think, be little doubt that the flattening of the shaft of the femur in its upper part must have some relation to the attachment of the muscles in this region and to the traction which, in connection with their use, they would exercise on the bone in its plastic and growing state. At one time I was disposed to associate it with the squatting attitude, a position which, as is well known, many savages assume when resting, and to the tension of the gluteus maximus in that position.

^{1 &}quot;On Variability in Human Structure," Journ. Anat. and Phys., vol. xxi. p. 488, 1887.

Further observations on the shape of the femur in some other races who habitually squat when at rest have, however, satisfied me that a platymeric femur is not necessarily associated with the squatting attifude. Dr Manouvrier attributes this configuration to the development of the fibres of the vasti and erureus muscles attached to this part of the bone, which are brought into especial activity in walking over rough ground, in ascending heights and in hunting. The association of platyknemia, a form of tibia also due to muscular action, with platymery, to which Dr Manouvrier has called attention, is corroborated by this skeleton.

Owing to both femora being incomplete, I can only obtain measurements to give an approximate estimate of the length of the bone (p. 435). The right tibia measured to the tip of the malleolus 368 mm. and to the astracadar articular surface 357 mm.

The right humerns was almost complete, and from the head to the lowest part of the trochlea was 303 mm, long. The deltoid and other muscular ridges were strong, and indicated a person of good muscular development.

Gas Works Cuer.—Many years ago, in quarrying away the cliff in proximity to the gas works, for the purpose of providing storage for coals, a cave was exposed which is said to have contained human skeletons, which apparently were not kept. In the summer of 1877 more of the rock was removed for the purpose of enlarging the storage, when additional remains were found. In passing through Oban in the autumn of that year I saw the cave and arranged to have sent to me such objects as had been preserved.\(^1\) I was told that enormous numbers of shells had been exposed during the excavation. The box which I received contained shells of the limpet, cockle, and oyster, a flint chip and fragments of primitive pottery. Dr Anderson has kindly noted the characters of the pottery.

"Pottery.—One fragment of the lip of a large vessel, shaped like a cinerary urn without an external overhanging rim, and showing no

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¹ In the cliff below the Free Church a cave existed at that time, which was said to be similar to the one exposed near the gas works. A fissure was present in the roof. I did not learn whether remains had been found in it.

ornamentation. The fragment measures only $2\frac{1}{2}$ inches in the chord of the arc of the lip, which is modelled with an interior bevel extending for $\frac{3}{4}$ inch under the brim and made apparently by the thumb. Extending the arc of the chord shows a diameter of 8 to 9 inches for the mouth of the vessel, and this would give probably a height of from 10 to 12 inches. The clay is of the usual coarsely made paste, much mixed with broken stones, and shows a thickness of $\frac{3}{2}$ inch immediately under the bevel. Two other fragments which join on to this one give fully 2 inches in depth of the side of the vessel and show that it had very little vertical curvature and must have been almost flower-pot shaped.

"Another fragment, about 2 inches square and not nearly so dark in colour, is of a somewhat timer paste, and may have belonged to a different vessel of the same character.

"They both resemble in all their characteristics the cinerary urns of the late neolithic period and of the Bronze Age, of which there are so many examples in the Museum."

Animal remains, consisting of teeth of pig, goat, ox, and red deer, were recognised, also the spur of a cock. A few bones of the deer and ox were also present; those of the limbs had been broken and the marrow cavities exposed.

No portion of a human skull had been preserved, but fragments of some of the long bones of the limbs were sent to me. Obviously from their size they formed parts of a man's skeleton. They were, however, so fragmentary that no light was thrown on the character of the skeleton. The shafts of the thigh bones were the least injured, but they could not be restored sufficiently to enable me to determine to what extent there had been antero-posterior flattening of the upper part of the shaft; though from what had been preserved it did not seem as if any marked platymery had existed. The shafts of the tibiæ could not be restored.

Distillery Care.—In August 1890, whilst workmen in the employ of Mr J. Walter Higgin were removing the rock for the purpose of obtaining a site for a new warehouse in connection with the Oban Distillery a cave in the face of the rock behind the distillery was disclosed.

am indebted to Mr Higgin for the following particulars. In removing some soil and debris from under the face of the cliff many cart loads of shells were exposed and taken away. They are believed to have been either on the floor of the cave, when it was more extensive than it now is, or at the entrance. The cave as it now exists was not exposed until after the exeavation and rock blasting were completed; when Mr Higgin's attention was called to a number of shells clinging, as it seemed, to the face of the rock, and which he directed to be removed. The workmen proceeded to clear the shells away, when the cave was disclosed. Shortly afterwards he was told that some bones had been found, some at the bottom and end of the cave, others in the shell-bed which the workmen had cast out. It was too late, however, to recognise if there had been any stratification in the earth and beds of shells, or what had been the exact position of the majority of the bones, some of which, however, still remained at the bottom of the deep end of the cave. The cave was situated about 40 feet above the present sea level. Its mouth was 9 feet wide and 10 feet high, and faced to the X.X.W.; its depth was 12 feet; at the back the height was 4 feet; and the width about the same, Mr Higgin instructed the remains found in the cave to be collected and forwarded to the Society of Antiquaries, by whom they have been sent to me for examination,

The boxes contained a number of shells consisting of oyster, common whelk, limpet, patella, solen, Venus verrucosa and Aixinova glycimeris, Several shells of the limpet presented a peculiar appearance. The apex and a large part of the body of the shell had been removed, leaving only the ring-like base. It is difficult to say if this condition of the shells dates from the occupancy of the cave, or has been occasioned by subsequent disintegration. If the former, possibly the rings had been strung together by way of ornament.

Flints and bone implements were also procured, the characters of which are described by Dr Anderson in the accompanying note.

"Stone.—Part of a nodule of cherty flint, 11 inch by 7 inch, having the naturally rounded surface of the nodule on one side and the split surface showing the bulb of percussion on the other, but no secondary working.

"Small flake of flint of triangular section, $1\frac{1}{8}$ inch in length and nearly $\frac{1}{4}$ of an inch in its greatest thickness, but with no secondary working.







Fig 4. Borer of Bone. (1.)

"Three small, thin and irregularly shaped chips of flint, varying from b an inch to \(^3\) of an inch in diameter, the edges unworked.

"Bone,—A long, narrow, spatulate-ended tool of deer-horn (fig. 3), 6 inches in length, barely ½ an inch in breadth throughout, and scarcely

more than $\frac{76}{16}$ of an inch in greatest thickness, the ends rounded off and worn by attrition, as if in rubbing against some rough substance, the middle part smoothed and somewhat polished on the one surface showing the dense exterior table of the horn, while the other surface shows the cancellated structure of the interior. It closely resembles a modelling tool such as is used for modelling in soft clay, and that this was a possible use is shown by the fact that fragments of two clay vessels were found in the neighbouring cave behind the gas works.

^a Borer of bone (fig. 4), 2½ inches in length, and nearly ½ an inch in greatest diameter at the butt end, tapering to quite a sharp point, polished and marked on the surface near the point with slight striations resulting from use. Such a tool may have been employed to bore holes in hides, either for the purpose of sewing the skins together, or for fastenings of any sort, by means of sinews passed through the holes."

Only a small number of animal bones had been forwarded from this cave. Amongst them was a fragment of the lower jaw of a young seal (*Phoca vitidina*), the lower jaw with teeth of a young ruminant animal, the tooth of a pig, bones of small birds, and vertebræ of fish.

The human remains from the Distillery cave gave evidence by the ord these, judging from the dentition, were adults, two of whom were probably men and one a woman. In a fourth all the permanent teeth were present in the lower jaw except the wisdom, which had not erupted, and the age was probably about twenty-four. In three others the first permanent molars had crupted, but the milk molars had not been shed. In the eighth specimen, which consisted of little more than the exymphysial region, only the milk sockets were seen. In the adult jaws the crowns of the teeth were flattened by use, but not decayed; in one, however, the sockets of the first and second molars were partially absorbed, and the teeth had been shed possibly from decay. Measurements of the three largest jaws are given in the Table (page 413).

The presence of several skeletons in the cave, some of which were immature, was also shown by the limb bones and vertebrae which reached me. Notwithstanding that the skeletons were very imperfect and the majority of the bones broken, I recognised four left femora at different stages of growth, in which the epiphyses were ununited: the smallest of these was a child apparently between one and two years of age, and to whom the youngest lower jaw had doubtless belonged. The tibiæ and other long bones, the clavicles, innominate bones, scapulæ, and vertebræ had also immature representatives.

Unfortunately the skulls had all been so much broken that only fragments reached me, and these were so imperfect that I could not restore a single cranium; but the frontal and larger part of the left parietal of a child from eight to ten years of age had been preserved. In none of the adults had the frontal bone been recovered, so that I can say nothing of the arch of the forehead, or of the amount of projection of the glabella. It is obvious from the remains that some of the bones had belonged to young skulls, others to adults.

As regards the long bones one adult left tibia was sufficiently perfect in the upper third to enable me to recognise the characters of the head and of the shaft immediately below it. The head was 81 mm, in transverse diameter across the articular areas, whilst the antero-posterior diameter in the middle of the head was 51 mm. The head was not retroverted, neither was the external articular surface convex antero-posteriorly in any special degree. The index of platyknemia in the plane of the nutrient foramen was 70.2. In an immature tibia which, without the epiphyses, was 274 mm. long, the index of platyknemia was 68. Only one adult femur had the shaft sufficiently entire to enable me to determine the shape of the upper third. Compared with the corresponding left bone from the Mackay cave neither the antero-posterior flattening nor the external infra-trochanteric ridge was so strongly marked. The antero-posterior diameter was 21 mm. and the transverse 30 mm.; the index of platymery was 70. Four imperfect adult humeri had wellmarked muscular ridges. The bones of the left forearm of an adult were entire. Their length was as follows: radius to tip of styloid process, 223 mm.; ulna to tip of styloid, 251 mm.; another left radius was 231 mm. long.

A left os calcis had a strong peroneal tubercle on its outer surface, and a deep concavity with very prominent sustentaculum on the inner surface. The superior articular surface for the astragalus was divided into three quite distinct areas by intermediate non-articular bone. In each of two astragali, a smooth, apparently articular, area was present on the upper surface behind the scaphold convexity, similar to that referred to in the corresponding bones from the Mackay cave, as associated with the acute flexure which is assumed by the ankle-joint in the squatting posture. The lower ends of the corresponding tibia had not been preserved.

The MacArthur Cave.—In February 1895 I received from the Society of Antiquaries three boxes, which contained human and other bones and shells collected from the cave at Oban, which Dr Anderson has described in the present volume of the Proceedings of the Society,

I entrusted the animal remains for identification to my assistant, Mr James Simpson, who reports as follows:—"(1) In the upper layer of black earth were bones or teeth of the red deer and of a species of ox; also of the pig, dog, and badger (Meles taxus). Some bones of birds, fish, claws of crabs, and shells of patella, solen, and whelk were recognised. (2) In the shell bed underneath the black earth, in addition to bones of badger, red deer, and ox, a part of the jaw of a roe deer (C. capreolus) was recognised; also bones of small birds and of fish, claws of crabs, and shells of patella, pecten, and solen. (3) In the deeper shell bed and pockets under the gravel below No. 2 were portions of two frontal bones of an ox, probably Bos longifrons, antlers, and bones of red deer, one of which had been a large stag, the burr being 80 mm. (about 3 inches) in diameter, bones of roe deer, the humerus of an otter (Lutra rulgaris), the humerus of a cat, the lower jaw of a young pig, the upper jaw of a badger; also bones of small birds, jaw and vertebre, of fish, crabs' claws, and shells of molluses. Some of the hones were blackened and calcined from the action of fire."

The human bones in box No. 1 were obtained, either on the surface of, or in the black earth and debris which covered the floor of the cave. They consisted of two adult skulls, unfortunately not quite perfect. The one most damaged, Λ of this description, was found on the surface of the black earth immediately below the air shaft which communicated with the external atmosphere. The other skull, B, was at the bottom of the black earth, where it rested on the shell bed. Three lower jaws, which, judging from the dentition, were adult, were found in proximity to the skulls. Numerous separate vertebra, a sternum, and several ribs were also in the box. Three axis vertebrae were distinguished. A number of limb bones, most of which were in fragments, had been obtained: portions of two scapulae, four clavicles, six humeri, six ulnæ, three radii, several metacarpals and phalanges, a fragment of an ilium, portions of three femora, one tibia, three fibulæ, a patella, four calcanca, two astragali, and some of the smaller tarsal bones were present.

Box No. 2 contained human remains obtained in the shell bed below the layer of black earth. They consisted of eight vertebre, a first rib, part of a scapula, some metacarpals, left os calcis, right astragalus, the upper end of a right and the lower end of a left femur.

Box No. 3 contained "bones from the shell beds and pockets in and under a layer of gravel, situated below No. 2." The human remains consisted of two dorsal vertebrae, a patella, left astragalus, tifth metatarsal and two metacarpal bones. In an envelope marked "upper section, S.E. corner," was an adult axis vertebra.

The contents of the boxes gave ample evidence of the remains of three human skeletons, but from the presence of four axis vertebre it is clear that at least four persons had been entombed in the cave. That three of the individuals were adults is certain from the dentition in the lower jaws, and by the bones of the limbs being fully ossified. One of the axis vertebra was much smaller than the other three, although so much broken that its external measurements could not be taken; the "ring" was only 19 mm, in antero-posterior by 22 mm, in transverse diameter, as compared with 24 and 26 mm, in one of the adult bones. Possibly it was the second vertebra of a child, but no other bones of a child were recognised.

That one of the adults was a man is proved by the size and massiveness of the skull B with its lower jaw, and by the size and muscular markings on some of the bones of the limbs. The skull A was distinctly smaller than B, and its muscular ridges were not so strong, so that it had more feminine characters, but it was younger than B, and was possibly also a male. The third lower jaw C, with which no skull was associated, was possibly a female. In packing the specimens in the boxes the bones of each skeleton had been mixed with their neighbours.

The skull B was especially interesting, as the most perfect specimen which I have seen in this series of caves. The man had probably been in the later stage of adult life, for the sutures of the cranial vault were to a large extent obliterated. The glabella and supraorbital ridges,



Fig. 5. Protile of Skull B.1

although not nearly so projecting as in the Neanderthal and Spy crania, were yet sufficiently strong to have given a definite physiognomy at the junction of the forchead and face. The alveolar border of the upper jaw was broken off in front, and the degree of prognathism could not be ascertained, but from what is left of the upper jaw I do not think that it could have been marked. Two teeth were lost in the lower jaw, but the sockets were entire: the remaining teeth, though without decay,

¹ For the excellent photographs of the crania from which the figures are reproduced, I am indebted to Mr W. E. Carnegie Dickson,

were in part worn by use, though not to the extent one might have anticipated from the age of the skull, as inferred from the condition of the sutures. It is possible that in these ancient cave dwellers, as is not unfrequent in existing savage races, the sutures ossify earlier in life than in civilised man. The lower jaw was massive, with a strong chin, and indicated the possession of good power of mastication.



Fig. 6. Facial View of B.

Owing to the base of this skull having been broken away I cannot give its height, but the measurements of its length, breadth, and circumference show it to be a skull of large dimensions, as may be seen from the Table. In an unpublished research on the cranial characters of the people of Scotland, on which I am now engaged, only four out of eighty-four male skulls reached 200 mm, in glabello-occipital length, and the longest of these was 204 mm, whilst the mean of the series was 186.2 mm., but this Oban skull measured 205 mm. 1 In its breadth, however, of 144 mm. it was about the mean of the male Scottish skull, which I have found to be in eighty-three adults 144.6 mm. The horizontal circumference was amongst the largest that I have measured, though many crania surpass it in the vertical transverse are. Owing to the nuchal and basilar parts of the occipital bone having been destroyed, I could not take the full internal capacity, but the cavity of the cranium, although imperfect, held 1715 cubic centimetres of water, which is greatly in excess of the average capacity of the skull in Scotsmen; for the mean of fifty male erania which I have measured was 1492'8 c.c., and the range of variation was from 1770 to 1240 c.c. The brain which it had contained had been therefore much above the average magnitude of that of the modern Scot. In the relation of length and breadth the index, 70.2, placed it distinctly in the dolichocephalic group. In its general form, as seen in the norma verticalis, the eranium was an elongated oval; cryptozygous, with vertical side walls; not bulging in the parieto-squamous region, for the widest part of the cranium was at the parietal eminences which is not the rule in a man's skull; a slight elevation was seen in the sagittal

¹ Examples of skulls having a length of 200 mm. and upwards have been recorded by several observers in the men of both neolithic and palæelithic times. Of the twenty-live ancient British male crania from the long barrows described by Dr Thurnam (Memoirs Anthropological Soc., London, vol. i. Table 1), nine exceeded 200 mm, in length, The Neanderthal skull was 200 mm. The Spy eranium No. 1 was 200 mm., whilst No. 2 was estimated to be 198 mm. In two skeletons found in 1843 in a kitchen midding at Staegenaes, Bro, Sweden, and described by Sven Nilsson (Actrs du Congrès des naturalistes Scandinares, Stockholm, 1844), one skull was 200 mm., the other 196 mm. A skull found at Olmo, near Florence, 15 metres deep in the blue lacustrine marl, and described by Cocchi (Mcm. della Soc. de Sc. Nat., Milan, 1867), was 204 mm. long. Two of the crania from Les Eyzies described by Broca (sur les ossements des Eyries, Paris, 1868) had each an anteroposterior maximum 202 mm., whilst a third was 191 mm. The Borris skull from the bed of the Nore, Ireland (T. H. Huxley, Prehistoric Remains of Caithness, 1866), was 204 mm. long. The skull recently discovered at Galley Hill, Kent, and ascribed to paleolithic man (E. T. Newton in Quarterly Journal Geolog. Soc., August 1895), was 205 mm, in maximum length and 203 in the ophryo-occipital diameter,

region and the slope from it to the parietal eminences was distinct; the parieto-occipital region sloped gradually backwards from the obelion to the occipital point. The forehead, though sloping backwards above the glabella and supraorbital ridges, was not low as in the Neanderthal and Spy crania. The nasion was depressed; the nasal bones were short and moderately projecting. In the norma occipitalis the outline



Fig. 7. Vertex View of B.

of the skull, owing to the slope of the roof downwards to the parietal eminences and the side walls being vertical, was pentagonal. The broken palate prevented me from seeing its general form; but it possessed a broad mesial ridge in its posterior half.

The skull A was more fragile in the cranial region than B, but the face was better preserved. Although the sexual characters were not so strongly marked in it as in B, I am inclined to think that it was that of a man. The sutures of the vault were unossified and the glabella and supraorbital ridges were comparatively feeble. The teeth were not decayed either in the upper or lower jaw, but they were more flattened from use than in B. This skull was smaller than B and broader in relation to the length. Owing to the right parieto-squamous region being imperfect, the breadth given in the Table is approximative, and so also is the length-breadth index, 75%. In their general form A and B



Fig. 8. Profile of Skull A.

were not unlike, and might well have been members of the same family. The upper jaw was orthognathic. The length and breadth of the nose was on the boundary between the leptorhine and mesorhine groups. In A the orbit was not so wide in relation to the height as in B, and the palate was well formed and mesuranic in its proportions. The basi-bregmatic diameter of the skull was almost the same as the greatest transverse diameter, and the length-height index, 76, places it in the hypsicephalic group. In Scottish crania generally the breadth exceeds

the height. The lower jaw, although less massive than in B, had a well-defined chin, and a keel projected forward at the lower half of the symphysis. This skull was not depressed at the nasion, the nasal bones did not project so much as in B. Owing to the vault of the cranium sloping ontwards to the parietal eminences more gradually than in B the pentagonal form was not so marked in the norma occipitalis. The palate was symmetrical and there was no mesial ridge.

The only part of the skull C which had been preserved was the lower jaw, the measurements of which are given in the Table. The sockets of the teeth were intact, although only the right wisdom tooth was in place and the surface of its crown was flattened from use. The jaw was well formed and with a distinct chin.

The two scapulæ were so much injured that their dimensions could not be taken, but one had obviously belonged to a strongly muscular man, and certain of the long bones had corresponding characters.

None of the six humeri was perfect; one pair was more slender than the others and had feminine characters. Three ulnæ were well preserved, and their maximum lengths were 260, 277, and 280 mm. One of these, a left bone, was much abraded on the front and inner side as if it had been gnawed by the teeth of an animal. Another, a right ulna, had sustained a considerable time before death an oblique fracture in the lower fourth of the shaft; the broken ends had united and were surrounded by a thickened growth of bone. The radii were all imperfect. The vertebræ were much broken and many were lost. The innominate bone was a fragment. A left femur possessed the shaft and condylar articular end; two others had imperfect shafts. The best preserved was probably that of a woman from its slenderness, smoothness, and short length. The antero-posterior diameter in the upper third of the shaft was 22 mm., the transverse 28, the index 78.6; no special tlattening was therefore present and the external infra-trochanteric ridge was faintly marked. The linea aspera in this bone was feeble. In the right bone of probably the same woman the antero-posterior diameter of the shaft was 21 mm, and the transverse 29 mm, the index 72.4; in this femur a slight amount of flattening was observed. In a third femur, evidently from its size that of a man, the anteroposterior diameter was 23 mm. and the transverse 33, index 69.7; the platymeric form was more recognisable and the linea aspera was much stronger. A portion of only one tibia had been preserved and it belonged apparently to the female skeleton; the antero-posterior diameter of the shaft at the mutrient foramen was 31 mm., the transverse 21 mm., index 69.7, showing a moderate degree of platyknemia.

Concluding Remarks.—From the fact that four caves containing human skeletons associated with implements and animal remains have been found, within a distance of half a mile, in the cliff which fronts the bay at Oban, one may safely conclude that the primitive inhabitants of that district made use of the natural recesses in the rock bounding the ancient sea beach. As the implements which have been found in these caves are formed of stone, bone and horn, and are unaccompanied by any trace of metal, it is obvious that the occupancy of the caves must date back to the præmetallic period in the north-west of Scotland-a conclusion which is confirmed by the character of the pottery found in the Gas Works Cave. A precise date cannot, of course, be given; but if the primitive people of the Scottish Highlands had attained a knowledge of the use of metals contemporaneous with, or even some time after, their manufacture into implements by the natives of Southern Britain, the people, whose remains we have been examining. would necessarily date back to a period antecedent to the invasion of Britain by Julius Cæsar, at which time both bronze and iron had evidently been long in use.

In considering the implements and weapons manufactured and employed by man living in a savage or barbarous state, we must take into consideration both the nature of the materials fitted for their manufacture provided by the country in which he lives, and the opportunities which he may have of obtaining materials of a better quality from other countries and more civilised races. As regards the people of the High-lands in the period now referred to, even if we suppose that metals had come into use in other parts of Northern and Western Europe, the opportunities of obtaining them, on account of difficulties of access, had doubtless been so small as to interfere with their introduction and

employment. The people, therefore, would necessarily be limited in their choice to such materials as they had around them. In the absence of minerals from which metals could be extracted, and in the consequent want of any opportunity of acquiring by practice the methods of treating ores, bone, horn and stone supplied the most appropriate substances. Oxen and deer, as their remains show, were without doubt sufficiently numerous to provide them both with food, and the raw material out of which tools could be made (see figs. 3 and 4, and the illustrations to Dr Anderson's description of the MacArthur Cave). Stone also was in abundance, but no stone implements, except three hammer stones made of sandstone, quartzite and a porphyritic stone, described in Dr Anderson's account, and a few made from flint, were found in any of these caves. The best specimens of manufactured flints were obtained in 1869 in the Mackay Cave (figs. 1 and 2). There can, I think, be little doubt that flints were the tools used in the manufacture of the horn harpoons found in the MacArthur Cave (figs. 11, 12, 13 of Dr Anderson's paper). As flint is by no means common in Scotland I asked my colleague at that time, now Sir Archibald Geikie, to tell me the nearest locality from which it could have been procured. He kindly wrote to say that a few years previously he had found a bed of chalk flints, 20 feet thick, underlying the great basaltic cliffs of Carsaig, on the south shore of the Island of Mull. As the cliffs are about 20 miles only from Oban, there can, I think, be little doubt that the supply of flint for the manufacture of stone implements had been derived from this locality. If one may judge of the size of the flint nodules in this bed from a few specimens which were found in the Mackay Cave, the implements which it was possible to make from them could not, as figs. 1 and 2 show, be of large size.

The animal remains associated with the human skeletons belong to existing species.¹ From the large quantities of shells removed in excavating the Gasworks and Distillery Caves, sea molluses must have formed an important article of food, and were perhaps also used asbait; and the empty shells, although to some extent within the

¹ Bos longifrons, remains of which were found in the MacArthur cave, is regarded as represented at the present time by the small Scotch and Welsh cattle.

caves, had been thrown into heaps or "kitchen middings" at their mouths.

Fish had also formed an important article of diet, and the harpoons from the MacArthur Cave were the ingeniously constructed weapons with which they were caught. The bones of the larger mammals had been broken to extract the marrow, and to be made into bone pins and rubbers, of which so many examples were got from the MacArthur Cave, as to indicate the employment of these primitive tools for the preparation of skins as articles of clothing. There can be no doubt from the barbed harpoons and the animal remains that the men had been expect hunters and fishermen.

We may form some conception of the physical characters of the cave-dwellers from the remains of their skeletons, imperfect though they unfortunately are. The adult skulls A and B from the MacArthur Cave prove them to have been people with well-developed crania, dolichocephalic in form and proportions. Although skull B possessed projecting glabella and supra-orbital ridges, yet these were not so prominent as to have given the beetling eyebrows, which must have been so marked a feature in the men of Spy and the Neander Valley: whilst in A their projection was slight; neither had they possessed the low arch of the frontal bone and forehead which is so striking a character in the Spy and Neanderthal crania. The jaws were not prognathic. The teeth, although partially worn down on the surface of the crowns, were not so flattened as one sees in the skulls of some savages. One is therefore disposed to infer that the food of the cave-dwellers was cooked before being eaten; an inference which is strengthened by evidence of the action of fire in the blackened, calcined bones in the Mackay and MacArthur Caves.

The great capacity of the skull B, which, in its uninjured state, had doubtless been capable of containing not less than 1730 c.cm. of water, places it on a level with some of the most capacious skulls of modern Scotsmen which I have measured. Notwithstanding the primitive conditions in which these men lived, a potentiality of cerebral and mental development is indicated much beyond what is possible in the aboriginal Australians or the Bush race, in whom the cranial capacity is very much lower.

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It is indeed remarkable that of the human skulls of undoubted antiquity, which have been sufficiently preserved to enable the cranial capacity to be taken, so large a proportion should have been almost equal to, and in many specimens even greater than the 1500 c.cm., which is the mean of numerous measurements of skulls of modern Dr Thurnam records, in his Memoir on Ancient European men. British and Gaulish Skulls, the capacities of eighteen crania, apparently those of men, from English long barrows, in which the mean was 1622 c.cm. (99 cubic inches), and the range was from 1474.6 c.cm. (90 c. i.) to 1835 c.cm. (112 c. i.). In eighteen Bronze-age skulls from the round barrows, which are of later date than the long barrow erania, he states the mean capacity to be 1605 c.cm. (98 c. i.), and the range was from 1442 c.em. (88 c. i.) to 1786 c.em. (109 c. i.). The series of crania obtained by Mr Samuel Laing at Keiss, Caithness, along with stone implements, which were so carefully studied by the late Mr Huxley,2 do not appear to have had their cranial cavities measured by that anatomist, but a female skull from the same burying-place, which was given to me by Sir Arthur Mitchell, has a capacity of 1458 c.cm., i.e., 89 c. i.3 Six male skulls from the Caverne de l'Homme Mort in the Lozere, associated with animals of the present epoch, and belonging to the polished stone period, had, according to Broca, a mean capacity of 1606 c.cm. Several adult male erania from other localities in France, which are regarded as belonging to the polished stone epoch, had an average capacity of 1568 c.em., and the average of twenty-five men's skulls from the Grottos de Baye was 1534 c.cm.4

Examples of skulls, possessing a capacity above the average of modern Europeans, have also been met with amongst the few specimens of crania belonging to Quaternary man, which have been preserved. The delichocephalic skull of an old man, apparently cotemporaneous with the manmoth, from the rock shelter of Cro-Magnon near Les

Memoirs, Anthropological Society of London, vol. i., Table 1, 1865.

² Prehistoric Remains of Caithness, London, 1866.

³ From my measurements of the crania of twenty-three Scotswomen, I have obtained an average capacity of the present female population of 1325°5 c.cm, and only three of these were above 1450 c.cm.

Topinard, Elements d'Anthropologie generale, p. 611, Paris, 1885.

Eyzies, has, according to Broca, ¹ a capacity of 1590 c.cm. The dolichocephalic skull of a man about thirty, associated with the diluvial loam at Hussowitz near Briun, is said by Alex. Makowsky ² to have a capacity of 1648 c.cm. Although he cannot say positively that it was cotemporaneous with remains of the mammoth, teeth of the fossil wild horse were found along with it, and he believes ² it to be undoubtedly a very old skull. Professor Testut has described a dolichocephalic man's skull found, along with flint flakes and implements of reindeer's bones and horns, at Reymonden in the Dordogne, as possessing a capacity estimated by Broca's method of 1730 c.cm. From the interments of these ancient people having been so carefully undertaken that their skulls had been preserved during many centuries, it is not unlikely that they had been the chiefs of their respective tribes, and that the large capacity had been associated with superior mental attainments.

The data for determining the stature of the Oban cave-dwellers are, owing to the imperfect condition of the long bones of the thigh and leg, unfortunately very imperfect. No thigh bone was entire. The right femur without its head, from the Mackay Cave, measured from the top of the great trochanter to the most depending part of the inner condyle 426 mm., and to the plane of the two condyles 420 mm.; in the left femur the head had been sufficiently preserved to enable one to see that it projected 20 mm. above the upper border of the great trochanter. If, in the right femur, the head had had a similar amount of projection, that bone would have measured 440 mm, when placed in the position of a man standing erect, which is slightly below the average length of the thigh bone in modern Europeans. If we were to adopt the somewhat rough method of estimating the stature of an individual as double the length of the femur+tibia, with 35 mm. added as equivalent to the soft parts, the stature of the man in the Mackay Cave would have been, femur $440 + \text{tibia } 357 = 797 \times 2 = 1594$ mm. + 35 mm, for soft parts = 1629 mm, or 5 feet 4 inches. If, again, we were to employ the method recommended by M. Manouvrier in his

¹ Mémoires sur les ossements des Eyzies, p. 23, Paris, 1868.

² Verhand, Naturforsch, Vereins in Brünn, Bd, xxvi., Brunn, 1888.

Bulletin de la Soc. d'Anthropologie de Lyon, t. viii. 1889, Lyon, 1889.

important memoir on the determination of the stature, ¹ and employ co-efficients based on the data given in his first Table, the estimated stature would have been 1654 mm. or 5 feet 5 inches. By both methods of computation the stature is distinctly below the average height of the present made inhabitants of Great Britain.

As has been stated in the description of the skeleton found in the Mackay Cave, the thigh bones were strongly platymeric and the tibia was platyknemic. In a skeleton from the Distillery Cave these characters were much less strongly marked, and in bones from the MacArthur Cave they were also moderate. The Mackay Cave skeleton was the only one which in degree corresponded with the form of the femur and tibia of the French neolithic interments. The presence of additional tibio-astragalar articular surfaces anteriorly leads one to conclude that the squatting attitude had been the habitual posture when resting.

From a certain community of character in all the four caves and their contents, more especially in the tools and implements found in them, one is led to the inference that the people who had occupied them belonged to the same epoch and were of the same race. Although both the pottery and the implements were rude and simple in material and shape, yet, from the absence of all remains of extinct animals, their inhabitants cannot be referred to paleolithic times, but are much later in date. It would seem appropriate to class them alongside of the men—whose remains are associated with the dolmens in France and with the long barrows in England—for the adults agree in possessing dolichocephalic crania, a moderately low stature and not unfrequently platyknemic tibize.

There can, I think, be no doubt that the caves were used as dwellingplaces. The remains of animals good for food, the long bones splintered for the extraction of the marrow, the quantity of shells of edible molluses, both in the caves and in some cases in heaps near the cave mouth, prove that the people had congregated in these recesses, and from the presence of both adults and children, it is probable that a family had been associated with each cave. The implements testify to the preparation of skins

Memorres de la Societé d'Anthropologie de Paris, 1892.

for clothing. The blackened bones show that fires had been lit within they had been made use of as shelters for the night. The fact that each cave contained human remains, and that bones of no fewer than fifteen skeletons were collected within them, shows that they had also become places of entombment. There is a want of specific information of the exact position of the human bones in the earth and debris on the floors of the caves, except in the MacArthur Cave, in which the skull A, with other bones, was situated on the surface of the black earth, and the skull B was found where the black earth rested on the upper shell bed. As the earth had probably, to some extent, found its way into that cave through the air-shaft in the roof, these two skeletons clearly belong to the latest period of human occupation. In the course of time, the mouths of the caves had become closed in by an accumulation of earth, so that their existence only became known to us during the quarrying operations connected with the growth of Oban during the past thirty years. The closure had been without doubt brought about by a considerable fall of superincumbent rock, and of loose earth from the top of the cliff, which had blocked up the mouth and had led to the concealment and preservation of the caves and their contents.

One might hazard the supposition that, after the caves had ceased to be occupied as dwellings and before they were closed in, the people had utilised them as places of interment, but this is not, I think, a very credible hypothesis. A more likely explanation may be sought for in the intertribal feuds, which doubtless them, as in times not very remote in the West Highlands, led to the massare by a hostile clain of members of another clain, surprised and perhaps suffocated by smoke, it may have been at night when resting peacefully in their cave dwellings. Possibly stems had then been taken to close in the entrance.

In passing under review the Oban caves and their occupants, we have to keep in mind that a considerable change in the relative level of land and water has taken place around the coast of Scotland—a change, there is good reason to believe, which occurred subsequently to the time when Britain first acquired human inhabitants. The caves, without doubt, were originally hollowed out by the sea, when the waves washed the cliff in which they are situated, and before the present raised heach was formed.

The existence of a layer of gravel some feet in thickness in the MacArthur Cave, composed of clean-washed, small-sized pebbles, testifies to the action of the waves. Dashed about by the movement of the water the pebbles would act as agents, which assisted in wearing away the rock and hollowing out the recess. At that time the cave could not have been inhabited, and its human occupants could not, I consider, have taken possession of it until the land was sufficiently elevated above high-water mark, and the cave was placed above the influence of the tide. The presence of bones in both the earth and in the shell bed on the surface of the gravel, and to a less degree in the imperfect shell bed subjacent to it, naturally, however, raises the question if there had not been two distinct periods of human occupation separated by a considerable interval, in which the waves had sufficient access to the cave to admit of a thick layer of gravel being deposited within it, and to lead to its being deserted by the first set of inhabitants.

Dr Anderson, who had the advantage of a personal inspection of the eave at the time when the execuation was going on, has carefully discussed this question in his descriptive memoir (p. 228). He states, with judicial fairness, the arguments based on the form of the cave and the arrangement of the gravel and shell beds, which may be advanced both against and in favour of two distinct periods of occupation, with an intermediate wave-washed interval. In my opinion, those facts and arguments which favour a single occupation after the sea had retired, and when the new sea-beach had either begun to form or been completed, have the greatest weight, and his explanation of the manner in which the bones became mingled with the shell beds seems to be satisfactory. There can be no doubt that the remains found in the caves have no claim to be associated with pelæolithic times, but are neolithic both in age and character.

HIY

NOTES ON A SILVER-MOUNTED CHARM-STONE OF ROCK-CRYSTAL FROM INVERLEXY, WITH NOTICES OF OTHER SCOTTISH BALLS OF ROCK-CRYSTAL AND OF SUPERSTITIONS CONNECTED THERE-WITH, By GEO, F. BLACK, ASSIGNAY-KEEPER OF THE MISSEYM,

i. Through the kindness of Mr Alexander J. S. Brook, F.S.A. Scot, I am enabled to exhibit a fine specimen of a mounted ball of rockerystal (fig. I), which is stated to have been used as a charm. The ball is 1³/₄ inch in diameter, and is mounted in a setting of four silver bands. Attached to either plate, uniting the ends of the bands, is a staple or loop of silver, from each of which depends a circular ring of the same metal. In the centre of each band is a small hemispherical setting of light blue paste, of a turquoise colour.

This ball was originally the property of the Gordons of Carall, and is stated to have been in their possession for six hundred years. It nobleongs to Col. Eyles Gordon of Inverleny, Callander. Nothing is known of its history beyond the tradition that it was used, like the crystal balls already described in the Proceedings, for the cure of cattle diseases and other allments. The silver mounting, according to Mr Brook, is probably of late seventeenth century date.

This ball is the finest mounted specimen which has come under my notice, and it is much to be regretted that nothing more definite can be said either of its history or use.

11. The Rev. Dugald Campbell, in his account of the united parish of Kilmore and Kilbride, states that at Dunolly Castle there are two crystal balls about the size of pigeons' eggs, and he adds that, "Tradition says a Lord of Lern, who joined the Crusaders, brought these stones from the Holy Land. They were for centuries supposed to passess great healing virtues, particularly in curing diseases of cattle, when it is said they were dipped in water which the cattle received to drink. It is not a

¹ Proceed, Soc. Ant. Scot., vol. xxvii, pp. 434 ct seq.

century since they were sent for by express a distance of 40 miles, to stay the rayages of an epidemic." ¹



Fig. 1. Civstal Ball, mounted in silver, as a Charm, (Full size)

About fifty or more years earlier, one of these balls is mentioned by ¹ Now Statistical Account (1845), Argyllshire, vol. vii. p. 527. Ramsay of Ochtertyre in his chapter on Highland Superstitions. His account of the ball and its virtues is as follows: 1—

"The Lengh—i.e., a sacred stone—is another engine of superstition derived from the Druids, which is used by the Highlanders, as well as by some other branches of the Celtæ. The Highland ones are generally larger than a hen's egg, and of much the same shape. Some of them are of a substance like crystal, and others of a sort of half-transparent pebble. There are few old families of any consideration that have not one of them in their possession. Various are the virtues ascribed to them—some being accounted efficacious in curing diseases whilst others are supposed to secure people against dangers. And therefore, not many years ago, it was customary to lustrate persons who were about to go on a military expedition with water into which the length had been dipped."

"Mr MrDougal of Dunolly, a gentleman of Lorn, is in possession of one of the most celebrated of these stones. According to tradition, it once belonged to MrDougal, Lord Lorn, a great family forfeited by King Robert Bruce, of which Mr MrDougal is reputed the representative. Its fame for curing the diseares of eathe is still very high with the common people of Argilshire; and long ago, the first people of that country sent for it on extraordinary occasions, and gave their obligation to restore it under a severe penulty. It has a flaw, concerning which they have a foolish tradition. It had been lent, say they, to somebody at a distance, with a strict charge to put it in a clean place, instead of which it was put into a sack of wood. This offended it so much that it gave a loud crack and flew home. Ridheulous as this may seem, the same becomotive powers are ascribed by the Highlanders to other lengths, as well as to St Fillan's bell? "

The discovery of the crystal balls above mentioned has suggested the desirability of enumerating and briefly describing all the Scottish balls

¹ Scalland and Scalsmen in the Eighterath Century, from the Ochtertyre MS., vol. ii. pp. 453, 454. Mr John Munro, of Oban, informs me that one of the Dunoilly balls is globular, and the other oblong or egg-shaped.

"Smith, in his Galic Antipartice, Elimburgh, 1780 (p. 62), says:—"A few of these crystal balls are still to be seen in the Highlands, where they have not yet lost all their credit. Some of their owners have still the weakness to believe, or the disingenuity to pretend, that these trinkets can do almost everything but raise the dead. It a distemper rages among men or beasts it is no uncommon thing to send 50 miles for this glass physician to cure them."

³ The following instances from Islay, of relies possessing an inherent bocomotive power, are mentioned by Leaf Teigumouth; The skull of a man named Mackarter [M'Arthur] is shown on a stone in a cave beneath the headland of the same name [M'Arthur's Head, near Prosig]. All attempts to remove the skull have failed, "It has been east into the sea, and earried away, but thas always resumed its

of rock-crystal that are at present known. Further particulars of these and other charms of rock-crystal will be found in the *Proceedings*, vol. xxviii, pp. 434-444.

III. The Clarh-Drary, or Stone of Ardvoirlich, mounted in a setting of four silver bands, with a ring at the top for suspension.

IV. The Clack-na-Bratach, or Stone of the Standard, the property of the Robertsons of Struan (Clan Donnachaidh). This is an unmounted ball, 1\(\xi_2\) inch in diameter. Mr Robertson Matheson, of Dunfermline, Honorary Secretary of the Clan Donnachaidh Society, informs me that it is believed by some that the ball "always grew dim or damp before the death of a chief of Clan Donnachaidh."

V. The Clack Bhuai (Bhuaidh), or Powerful Stone, formerly in the possession of the Campbells of Glenlyon. It is mounted in silver, and is described as about 1½ inch in diameter. The present resting-place of this ball is unfortunately not known.

VI. The sixth ball is in the Fingask Collection, at present on loan in the Museum of Science and Art. It is mounted in silver in the usual manner. Unfortunately it has no history.

VII. A small ball, 13 inch in diameter, unmounted, is in the Scottish National Museum. It is stated to have been found in a grave in Fife.

VIII. In the Appendix to the paper on "Charms and Amulets," already referred to, mention is made of two balls of rock-crystal in the Museum of the Royal Irish Academy, one of which, 2\(\frac{1}{8}\) inches in diameter, is "reputed to have belonged to the Regalia of Scotland." The second

¹ Bundh. "This word literally means a victory, hence the extraordinary powers or virtues of annulets, &c. Jewels are called clocka bundh, i.c., stones possessing virtue, probably from the ancient belief that the gens were efficacions for the discovering and counteracting of poisons and spells."—Footnote to "The Pursuit of Diarmoul and Graime," Trans. Ossianic Society of Dublin, vol. iii, p. 119.

[&]quot; Proc. Soc. Ant. Scot., vol. xxvii. p. 524,

ball, 12 inch in diameter, was stated to have been found at Uppercourt, Kilkenuy. Through the kindness of D. W. Stewart, Esq., a Fellow of this Society, I am enabled to correct this paragraph, and to give some additional particulars. Mr Stewart, during a recent visit to Dublin, had his attention drawn to the crystal balls in the Museum there, and on making inquiries concerning them, learned that an error was made when the Catalogue of the Royal Irish Academy was compiled, and that the smaller of the two balls is the one from Scotland. Mr Stewart further learned that the ball was formerly in the possession of the Campbells of Craignish, and that it was sold to the Royal Irish Academy about forty years ago. In the bond of manrent of the year 1610, printed in the paper, describing a charm-bead from Craignish, in the last volume of the Proceedings,1 mention is made of "ane precious stane," in the possession of Ronald Campbell of Barrichibyan, but pertaining to Angus Campbell of Innerlyver, "quhilk stane the said Ronnald hes oblessit him and his airis quhatsumeuer to mak furthcomand to the said Angus and his airis, And to that effect sall anis delyner the said stane in the handis of the said Angus, And the said Angus sall redelyuer thaireftir the said staine againe in and to the custodie and keping perpetuallie of the said Ronald and his airis berand his surname and armis; And thairfoir the said Rannald oblissis him and his airis foirsaidis to present and delyuer at all tymes at requist the said stane when the saidis Angus and his foirsaidis sall haue to do thairwith, the samen beand reportit bak agane eftir thair turne be done." It was further provided for, that if the stone were not forthcoming, Ronald and his heirs obliged themselves to pay to the said Angus the sum of " ane hundrethe merkis money as pryce and value of the said stane." In the paper on the charm from Craignish it was sur mised that the bead there described was the precious stone referred to in the bond, but it is just as likely to be the crystal ball under consideration.

1X. In the possession of Mrs Gibson, bankhead House, Forfar, is a ball of crystal 1½ inch in diameter. It has no history.

X. The Keppoch Charm-stone is "an oval of rock-crystal about the size of a small egg, fixed in a bird's claw of silver, with a silver chain attached." This charm is now believed to be in Australia.

¹ Proc. Soc. Ant. Scot., vol. xxviii. p. 231,

The classical accounts of crystal, as, for instance, that of Pliny, deal mainly with its use as a material for the manufacture of articles of luxury, such as basins, goblets, cups, &c. The only medicinal property credited to crystal by Pliny is its use as a cautery for the human body when acted upon by the rays of the sun.\(^1\) It is only when we reach medicaval times that we begin to find marvellous accounts of the magical and curative properties of this stone. Of these accounts the fullest, and probably the most quaint, is that of Bartholomew Glanvil. It is as follows:\(^2\)—

"Crystall is a brighte stone and clere, with watry colour. Men trowe that it 15 of snowe or yee made harde in space of many yeres. Therfore the Grekes yave a name therto. It is gendred in Asia and in Cipres, and namely in the northe moutavnes, where the sonne is mooste feruent in somer. And they make this dure longe, that is called Cristal. This stone set in the some taketh fyre, in somoche if drye towe be put therto, it settiel the towe on fyre. His vse is orderned to drynke, and werketh none other thynge but what colde thynge may do. Huc usque Isidorus li. xvi. ca. xiii. Dioscorides speketh of Cristall & saythe, that it is harded and torned in to stone not onely by vertue and strengthe of colde, but more by erthely vertue. And the colours therof is lyke to ise. The vertue therof helpeth ayenste thirste and brenynge hete. And if it be beten to powder and dronken with hony, it fyllith brestes and tetes full of mylke, if the mylke fayleth before bycause of colde. Also if it be dronken it helpeth avenst Collica passio, & ayenst the passion of envil guttes, if the wombe be not harde. This stone is clere, and so lettres and other thynge that ben put therin, ben seen clerely ynough. That Cristall materially is made of water, Gregorie sayth super primum Ezechielis: water (sayth be) is of itselfe fletynge, but by strengthe of colde it is torned & made stedfaste cristall; and so in Eccles, it is writen. The northen wynde blewe and made cristal frese, &c. And herof Aristotle telleth the cause in h. Metheororum:

^{1 ··} Invenio medicos que sant urenda corporum, non aliter utilius id feri putare, experimente expe

² In Proprietatibus Recunt, lib, xxi, cap. 21. The author of this treatise, Barnolome de Glauvil, was an Englishman and a Franciscan friar. His work was compiled about 1360, and is a complete store-house of what passed for scientific knowledge in his time. Written originally in Latin, the work became popular in England in the translation by John of Tervisia in 1398. The work is based on the Speculam Naturale of Vincent de Beauvais (Vicentius Bellovacensis), who died about 1284. The edition here quoted was printed "in schlams Thomae Berthelet 13635."

There he sayth, that stony thynges of substannee of ooze, ben water in natter, as Ricardus Rufus saythe: Stone ooze is of water; but for it hathe more of drinesse of erthe thanne thynges that melte, therfore they benne not froze onely with coldness of water, but also by drynesse of erthe, that is myngled therwith, whan the watri partye of the erthe and glasy hath mastry on the water, and the forsayde colde hathe the victory and mastrie. And soo saynet Gregory his reasone is true, that sayth that crystalle may be gendred of water."

Crystallomancy, or divination by means of a crystal ball, was in great repute in Elizabethan times, and is practised more or less at the present day. In divining with the crystal the operator first muttered a formula of conjuration over the ball and then placed it in the hands of a chaste youth or virgin, when the spirit summoned shortly afterwards appeared, or the desired answer was seen on the surface. Aubrev devotes a chapter of his Miscellanies to the subject of divination by means of a beryl or crystal, and gives a figure of a "Consecrated Berill" mounted on a stand. "This Berill," he says, "is a perfect Sphere, the Diameter of it I guess to be something more than an Inch: It is set in a Ring or Circle of Silver resembling the Meridian of a Globe: The stem of it is about Ten Inches high, all gilt. At the four quarters of it are the Names of Four Angels, ciz., Uriel, Raphael, Michael, Gabriel. On the top is a Cross Patee." 1 This beryl was consulted for the cure of diseases; and the operator, after repeating the conjugation, "did see, either the Receipt in Writing, or else the Herb,"

The following formula for conjuring with a crystal ball is printed by Douglas from a manuscript in the British Museum. The manuscript, he states, appears to have been written in the reign of Queen Elizabeth or James the First (of England):—

"Here follows the an experiment, approved and unknowne, of Assayy II, to so most credlent and celainly in a christall stone what secret thou with

"First, take a chrystall stone, or a glasse, the greater the better, so that it be fayre and cleane, without any ragges, cracke, or holes broken within; and thou must have a thouge of harte-skinn, to wrappe thy stone in, so that thy stone may be well seene in the middlest of the binding; and ever, when thou dost wrappe the stone about with the thonge, say thus: In nomine started

Miscellanus, 1696, p. 131.

trinitates of dictatis have geometra eccoude. Then holde the crystall stone, which is so dight in thy right hande, against the sun, which must be done in the heate of the sun at noone, when the sun is in the highest and hottest, and soe call him in such likeness as thou wilt by the conjunction followinge, and he will come and shew thee whatsoever thou wilt in all countryes, of all things, whatsoever thou wilt ask him; and thou shalt command him to bring his followers with him, and he will bringe one Mathayas with him, and another also will come with him.

"SEQUITUR CONJURATIO.

"Conjuro vos Centony Ceton, messitone messiton, myssycon vel myceteron, qui habitatis in Bosco, ego vos conjuro et precipio vobis cum sociis vestris ut sitis parati obediendo mihi, et ad omnia precepta mea adimplendo. Conjuro te Ascaryel Abylon vel Boat, per patrem et filium et spiritum sanctum, qui ext Alpha et Omeça, principium et finis, per tremendum diem Judicii, et per virtutem Dei venii, et per omnia nomina ejus effabilia et ineffabilia. Quatemus tu Askaryell in istem gemanua eristeliume sine mora citissime venias, in propria persona tua et in pulchra hominis forma et sertum in tuo capite et mihi visibiliter teipsum demonstres, et omnibus circumstantibus cito appareas et socios tuos tecum adducas ut te et illos optissime videre possimus, per desiderium meum et meas conjurationes et per omnia que tibi jussero. Et si hoc non feceris in virtute et per vertutem Dei, et per potestatem magnam quam Deus habet super te, ego condemno te Ascaryel in infernum et ignem inextinguibilem usque ad ultimum Diem judicii: fat, fiat.

"Nisi hie citius appareas, et ad omnia interrogata veraciter respondeas, et statim et sine mora cum te vocavero ad instantiam meam venias omnibus horis.

"Conjuro te Askariell, per Deum patrem omnipotentem et per Jesum Christum ejus [filium], et per Sanctum Spiritum, trinitatem personam, per virtutem substantia- ejus, per providentiam sanctam qua Dens in monte sta habuit, antea qua mundum fecti, et per bonitatem qua- omnia fecti per sapientiam per qua celos suscepti, et terram deorum fundavit, per colum terram et maria et omnia qua in eis sunt per profunditatem abyssi, per quattor elementa, et per virtutem quam in elementorum confusione immissit, et per opera misericordiae et per potestatem Dei quae lucem creavit, et diem et noetem ordinavit, per angelos et archangelos, per thronos, dominationes, potestates, principatus, et virtutes, cherubyn et seraphyn, et per corum officia, et per corum conjurationes, et cos qui pressunt allis, et per cos qui sub ipeis positi sunt, per firmamentum cell, et per omnia quae sub lirmamento et in firmamento sunt, per omnes oclos, et omnes virtutes corum celorum, et per omnia quae creavit Deus, ad laudem et honorem nominis suc majestatis, conjuro te Ascaryell, per duodecim apostolos, Domini nostri Jesu Christi, per sanctam Mariam, matrem Domini nostri Jesu Christi, semper virginem, per quatnor Evangelistas Jesu Christi et per sanctum Evangelium Christi, per virtutem viginti quatuor seniorum incessanter canentium et dicentium, sanctus sanctus sanctus Deu-Sabaoth, et per corum victoriam et sedes, per mare vitreum, quod est ante conspectu divinæ majestatis, gradiens et potentiale, per quatuor animalia, ante thronum divinæ majestatis, gradientia, oculos ante et retro habentia, et per ignem ante ejus thronum circumstantem; per quatuor cœlestia aurea candelabra, per sedem magistratis, per thronum Dei, per altera aureum quod est ante conspectum Dei, per fulguria, tonitrus, et voces, quod egrediuntur de throno, per merita omnium confessorum, et per reliquias omnium sanctorum, et per omnes sanctos et sanctas virgines in colo, et per omnes sanctos que Deum semper laudent et adorent. Quatenus in Ascarvell statim et sine mora venias, et in istum speculum citissime intres, in propria persona tua, et in pulchra forma humana, et sertum in tua capite, et visibiliter mihi, et omnibus circumstantibus citissime appareas, et socios tuos tuum adducens ut te et illos aptissime videre possimus, per desiderium meum, et per meas conjurationes et per omnia quæ tibi jussero; at si hoc non feceris in virtute et per virtutem Dei, et per potestatem quam Deus habet super te, ego condemno te Askariell in infernum, et in ignem inextinguibilem usque ad diem Judicii, nisi citius hic appareas, et ad omnia interrogata mea veraciter respondeas, et statim et sine mora cum te vocavero, ad meam instantiam venias omnibus horis.

"Adline conjuro te Askariell, per cum qui est Alpha et Omega, et per ista sancta nomina Dei que sunt hic, Ehel, Abiel, Anathael, Amay, Hagyos, O Theos, Deus omnium potentias, Hiecteta, Grammadon, Uneytheon, Almaron. Stimulamaton, Elioram, Elsephares, Existon, Histerion, Adonay, Rusus, Leabacon, Cyron, Jehovalh, Elibra, Eloym, Saton, Leccom, Messias, Leytte, Letiston, Almarias, Archima, Rabur, Onela, Elbrac, Eles, Egepate, Regum, Abraca, Bota, Legata, Amazim, Christus, Saday, Candor, Decor, Candos, Elfel, Nazarenus, Helenon, Abecor, ye, ya, El, Elion, Saray, ymas, Amabona, Emanuel, Quatenus, tu Askriell, siem mora et statim venias et ut supra

"Adhue conjuro te Askariell, per alia sancta nomina Dei secreta, que sunt his, Erisiel, Dens, Apres, Eloy, Ursta, gloricsus, bonus, on, unigentas, via, vita, manus, homo, sapienta, virtus, principium et finis, fons et origo, paracletus, mediator, agnus, ovis, vitulis, Aries, verbum, splendor, Sol. gloria, lux, et luago, panis, flos, vitis, mons, pons, Janua, petra, lapisque Angularis, pastor, prophetas, sacerdos, athanatos, Kyros, Theos, panton, craton, vsus, igerion, Anapheneton, albinago, Ebrutone, talsea, Sameth, Agla, Ihesus Christus, Tetragrammaton, Sabasdh, Quatenus tu Askariell, et ut supra.

"Conjuro te Askariell, per bonitatem domini nostri Jesu Christi, et per incarnationem nativitatem, et circumcisionem cius, et per baptisma cius, et per

iciunium cius, et per humilitatem, qua pedes discipulorum cius lavit, per crucem et passionem eius, et per omnes eius pænas quæ in ara crucis sustinuit pro redemptione humani generis totius, per coronam spineam quam in capite suo portavit, et per clavos quibus manus et pedes eius confixi fuerunt, et per lanceam que latus eius aperuit, et per aquam et sanguinem, qui de latere eius fluxerunt, per precationem sudatam, quam patrem suum invocavit, et per animam ejus quam in manus patris ejus commendavit, et per virtutem qua velamen templi divisum fuit. Sol obscuratus fuit, et tenebre factæ fuerunt super universam terram, et sepulchra aperta sunt, et multa corpora sanctorum qui dormierunt surrexerunt; per haec, et omnia alia prædicta, conjuro et A-kariell, et præcipio tibi, Quatenus statim et sine mora venios, et in istam gemmam christallinam citissime intres, in propria persona tua, et in pulchra forma humana, et sertum in tuo capite, et mihi visibiliter et omnibus his circumstantibus cito appareas, et socios tuos tecum adducens, ut te et illos aptissime videre possimus, et sine timore, terrore, vel nocumento, mei corporis vel animæ vel cujuscunque creaturæ Dei, et ad omnia interrogata mea veraciter respondeas sine fraude vel mendacio, vel dissimulatione quacunque, per desiderium meum, et meas conjurationes, et per omnia quæ tibi jussero ; et si hoc non feceris in virtute et per victum Dei, et per potestatem quam habet super te, condemno te Askarvell in infernum, et in ignem inextinguibilem, usque ad ultimum diem Judicii, fiat, fiat, fiat, Amen.

"Nisi citus hic appareas, et ad omnia interrogata mea veraciter respondeas, et statim et sine mora cum te vocavero ad instantiam meann et per precepta mea venias omnibus horis.

" And yf he come not at the third call condempe him saying thus .-

"Ego condemno et condemnato te Askariell in ignem eternum, et inexinguibilem, in virtute et per virtutem Dei vivi, et per potestatem quam habet super te Dens, in lacus ignis, et sulphuris, et in pena acterna sustinens habet, et omnia alia maledicta donce præsens appareas mihi, et totam voluntatem meam adimpleas.

"And yf he come not the first day, call him the second; and if not the second, call him the third, until he come; then bind him to you, ut in aliis experimentis, &c." |

¹ Douglas, Nenia Britannico, pp. 17, 18. Another though differently worded and less copious incantation (in English) for conjuring spirits into a crystal ball is printed by Reginald Scot (Discourse of Witchenff, Nicholson's ed., pp. 360–362).

1X.

NOTE ON THE DISCOVERY OF AN INCISED SYMBOL-BEARING SLAB AT EASTERTON OF ROSEISLE, ELGINSHIRE, BY THE REV. JAMES MORRISON, Co., MEM. S.A. SOOT.

In the spring of 1894, Mr Dawson, the farmer of Easterton, in the parish of Duffus, in preparing one of his fields for turnips, turned up a number of human bones and skulls. Most of the bones when touched crumbled into dust. Some of the skulls, however, were got more or less entire. On examination, it was found that a great many bodies had been haid side by side in shallow trenches.

Some months ago the plough struck an earth-fast stone some 50 yards westward from the place where the skeletons were found. On trying to remove it, a cist-like construction (fig. 1) was found, the west side being formed by one large slab, which was subsequently discovered to have incised on it some of the characteristic figures of the Sculptured Stones of Scotland.

On Tuesday, 7th May 1895, along with Mr Cassie of Honeman Free Church, I went to Easterton, had a long interview with Mr Dawson, and got full information as to the form and structure of the cist—information confirmed by Mr Cassie, who had seen it very soon after its discovery. and before the figured slab was removed. A rough sketch-plan was taken by us (fig. 2), which is forwarded with the notes we took. The bone-remains, which Mr Dawson states were found at two points near the south-east and north-east corners of the cist, look more like bone-dust mixed with sand. Mr Dawson is to send a specimen for examination, The charcoal found near the middle of the cist is also mixed with sand, and some of it will also be sent. Near the north-west and south-east corners of the cist there were a number of white, rolled, beach stones, and with them some darker ones, from 4 to 6 inches long, round, and about 12 inch in diameter, and one oval-shaped. Some of these are flattened on the ends like hammer-stones, but if they have been so used, it has not been on any rough substance, as the ends are smooth. The whole of the bottom of the cist was roughly paved with stones of varied shapes and sizes. The flat stones at the sides were thickish slabs of sandstone, on which were built similar slabs, all of them unshapen, and the height was about 3 feet. There was only one upright stone about 4 feet high. The sculptured stone (figs. 3 and 4), set on edge, with the mirror, sceptre, &c., facing the interior, formed the west side. Although the cist had been first opened in December 1894 by Rev. Mr MrEwen, F.S.A. Scot., and Mr



Fig. 1. View of Cist at Easterton of Roseisle, looking North-West.

Dawson, these symbols on the face of the stone then exposed, as forming one side of the cist, remained unnoticed till March following, when they were observed by Mr Dawson, and it was only on 25th April thereafter that it was discovered by Rev. Mr Niven of Burghead, who then visited the place along with Mr Dawson, that the other side of the stone had figures on it also, viz., a large bird (apparently a solan goose), and beneath it a fish. Both are singularly graceful. The cutting is deeper and more sharply defined than that of the mirror, sceptre, &c., on the opposite side. But what is still more singular, if the mirror side was first wrought, the stone had been turned upside down when the other side was wrought, for the bird and the fish are placed reversely to the symbols on the other side; and when they are turned the right way up, those on the other side are upside down. The dimensions of the stone

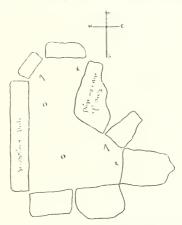
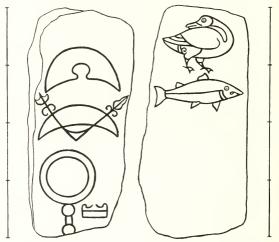


Fig. 2. Ground-plan of Cist at Easterton of Roseisle. Scale ¹/₂ nearly, AA, Oval and round stones. XX. Bone dust. OO, Charcoal.

are 3 feet 9 inches in length, 1 foot 8 inches in breadth, and 7½ inches thick. It is just such a slab as might be got any day on the gently sloping sandstone rocks which overlap each other on the beach to the east of Burelead, like slates on the roof of a house, and which are under high-water mark. On one side the sculptured stone is wasted and furrowed at the bottom, evidently by the action of the tides.

The cist has been filled up. There was no covering or lid on it. The



Figs. 3 and 4. Sculptured Slab, forming side of Cist at Exsterton of Roseisle, obverse and reverse. (¹/₁₂.)

field on which it was found slopes down to a marshy swamp, a portion of the depression which extends from Lossiemouth westward through the Loch of Spynie, through Drainie, Duffus, and Alves, to near the mouth of the Findhorn. It is a pity that this interesting monument is to be practically buried.

The proprietor of the land has gifted it to Mr Young of Burghead,
F.S.A. Scot., who is to place it in the harbour-office there, alongside
of pieces of two of the Burghead Bulls, which are also kept in the
same office.

[With reference to the latter part of Rev. Mr Morrison's paper, the Secretary stated that application had been made, on behalf of the Society, by Pr James Macdonald, Vice-President, to the proprietor of Roscisle, for a gift of this important monument to the National Museum, but without success. The Society is indebted to Rev. Mr Cassie and Mr Wittet, Architect, Elgin, for the ground-plan of the cist, and to Messrs Bemrose and Sons, for the loan of the blocks of the views of the cist and stone, made from photographs taken specially by Mr H. W. Young of Burghead, F.S.A. Soot., which appeared in the Reliquiary and Hinstrated Archardogist for July 1895, in illustration of a paper by Mr Young, announcing the discovery.]



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