DUMFRIESSHIRE AND GALLOWAY

NATURAL HISTORY

AND

ANTIQUARIAN SOCIETY

FOUNDED 20th NOVEMBER, 1862

CENTENARY VOLUME

OF

TRANSACTIONS

AND

JOURNAL OF PROCEEDINGS

1961-62

THIRD SERIES, VOLUME XL.

Editors

R. C. REID and A. E. TRUCKELL, F.S.A.Scot.

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This Centenary Issue is dedicated to the late R. C. Reid, who in so many ways advanced the cause of learning and the arts and whose service to this Society cannot be adequately acknowledged.

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CONTENTS

SESSION 1962-63

ILLUSTRATIONS.

EDITORIAL

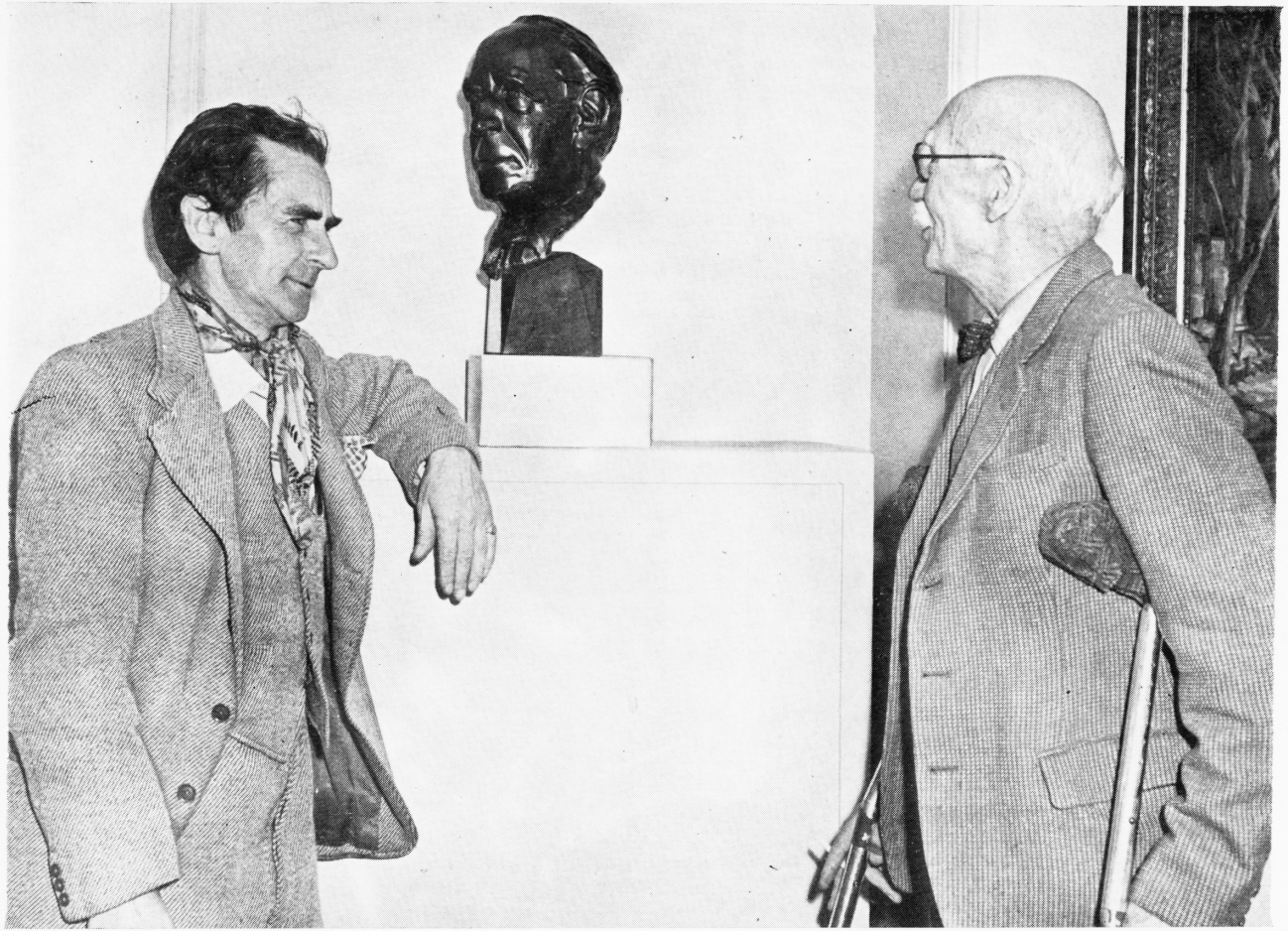
Members working on local Natural History and Antiquarian subjects should communicate with one of the Editors. Papers may be submitted at any time. Preference is always given to original work on local subjects.

The Editors do not hold themselves responsible for the accuracy of scientific, historical or personal information. Each contributor has seen a proof of his paper.

Presentations and Exhibitions should be sent to the Hon. Secretary. Exchanges should be sent to the Librarian, Ewart Library, Dumfries.

Enquiries regarding purchase of *Transactions* and payment of subscription (21s per annum) should be made to the Hon. Treasurer.

This volume is produced with the aid of a generous grant from the Carnegie Trust for Scottish University.



Dr R. C. Reid and Mr J. G. Jeffs before the latter's portrait of the late E. A. Taylor, the Kirkcudbright artist, at Gracefield Arts Centre. The Centre was largely Dr Reid's creation.

R. C. REID

The Society—and archæological and historical research generally—has suffered a great loss by the death of Dr R. C. Reid, to whom this centenary volume is dedicated. A few appreciations by leading workers who knew and were stimulated by him follow: the writer himself, who worked intimately with Dr Reid for some 16 years, and saw the immense breadth of his interests and activities, as well as the warm humanity of the man (Dr Reid had a share in his appointment to the Museum and assisted him in every way throughout) is only beginning to feel the void left by his passing.—Ed.

From R. B. K. STEVENSON, Esq., M.A., F.S.A., F.M.A., Keeper of the National Museum of Antiquities, Edinburgh

To have known R. C. Reid was to be drawn into his schemes by a stimulating mixture of cajolery and bullying, schemes of wide value though focused by local patriotism. Two most fruitful ideas of his began to take shape early in the 17 years I can speak of at first hand. One was to enlist experts from the outside to try to solve the archæological and historical problems of St. Ninian and Whithorn, which led to Mr Ralegh Radford's work there (and then later in other parts of Scotland), and to the Society's Ninian volume and further echoes not yet ended. The other was to bring the four Scottish Universities to sponsor a joint scheme by which students were helped to get experience and training in excavation. For many years one of the mainstays of this was Mr John Clark's excavation at Milton. Then when last year a more ambitious, systematic—and expensive—stage was inaugurated by concentrating on a single training site for a number of years, it must have given Mr Reid particular pleasure that that site is Birrens. One failure may be mentioned—to tackle Burnswark on an adequate scale proved impossible, and rightly nothing else would do. For

the rest the pages of the Transactions show his success in producing archæologists as well as fellow historians, but they give no glimpse of the irresistible warmth and courage to which the ovation at the Centenary meeting was our public tribute.

From C. A. RALEGH RADFORD, Esq., M.A., F.S.A.

It is sad to think that Dr Reid, who so largely inspired the planning of this Centenary Volume, has not lived to see its publication. The Centenary Meeting of the Society, the proceedings of which this volume incorporates, was the occasion of his last public appearance and the papers presented at that meeting represented the summary and culmination of a whole series of investigations which he had undertaken and encouraged.

R. C. Reid, as he was known to all, was a Dumfriesshire man with a cousinage extending over the whole of that county and of Galloway. On his return to his native Mouswald he devoted a large part of a full and active life to the study of the local history and antiquities of the south-west. Others have written of his public life and his researches in various fields. My own memories date from 1948 and are concerned with medieval and Christian antiquities. At Whithorn, which first brought us together, the " hunch " which led him to seek my co-operation was richly rewarded by the discovery of Candida Casa, the oratory within which St. Ninian lay, a result which neither of us would have dared to forecast when the first sod was turned. Whithorn, Chapel Finnian, Hoddom and Unthank —I name only the more important—represent a series of investigations planned by Reid and executed for his Society by myself. It is a series that would do credit to any learned body; nowhere else have I had the same possibility of carrying through so extensive a planned programme designed to illustrate comprehensively one whole field of regional study.

I must be excused if I have spoken of our collaboration; it is his activity that I know most fully and can best

appreciate. But it does not stand alone. He had already worked in a cognate field with W. G. Collingwood recording the early Christian crosses and sculptures of the three counties. Reid's own chosen subject was the preservation and publishing of charters and local records, including genealogical studies. Wigtownshire Charters, in the Transactions of the Scottish History Society, of which he was President in 1953, is the most comprehensive and systematic of his publications, but there is scarcely a volume of the Transactions of the Dumfriesshire and Galloway Society in the last fifty years which does not contain an article or a note illustrating the history of some place in the south-west and of the families connected with it.

No one who was associated, however fleetingly, with these researches will forget the man who inspired them. His enthusiasm was infectious; in spite of the lameness, which handicapped him throughout life, his energy was untiring. He spared neither himself nor his companions in his determination to bring the work in hand to a successful conclusion. When the result was achieved he was always generous in his appreciation of the contribution of his colleagues and many scholars will remember with gratitude the help and encouragement given at the beginning of their careers, not least in providing the space in the Society's Transactions for the publication of their researches. He was a charming companion and the expeditions which he led in the pursuit of knowledge were always enlivened and smoothed by his wit and his courtesy.

From Miss ANNE S. ROBERTSON

In the last twenty-five years our knowledge of Roman activities in S.W. Scotland has grown beyond all anticipation. No small part of the credit for this is due to Dr R. C. Reid. He himself may not have discovered or excavated any Roman sites, but by his stimulating enthusiasm he inspired others to do so, and by his unfailing helpfulness he made it possible for their projects in the field to

be carried to fruition. He was the cause of discovery and excavation in others.

Romano-British archæologists who enjoyed (literally) Dr Reid's co-operation in S.W. Scotland included Mr John Clarke, so recently lost to us, Professor Eric Birley, Professor Ian Richmond, Dr J. K. St. Joseph, Mr C. Daniels and myself. I know I speak for the others when I say that even more welcome than Dr Reid's every-ready practical assistance was Dr Reid himself. His visits to excavations, latterly made under a severe physical strain courageously borne, were eagerly awaited and always rewarding. His insight and his understanding of archæological problems made him a most sympathetic and clear-thinking adviser.

One of the many schemes close to Dr Reid's heart was the establishment of a semi-permanent Training School in Field Archæology under the auspices of the four Scottish Universities at the Roman site of Birrens, Dumfriesshire. The School began its first season in 1962, but by then Dr Reid was physically unable to visit it. He (and Mrs Reid) were, however, kept informed of its progress and of plans for its future development. It is good to remember that he played a part in a scheme which, among its other results, seems likely to ensure a steady flow of young excavators eager to work in Dr Reid's beloved S.W. Scotland.

ARTICLE 1

The Society's Centenary Celebrations

By Dr ANNIE I. DUNLOP

It was my privilege and pleasure to attend the centenary celebrations of the Dumfriesshire and Galloway Natural History and Antiquarian Society as a representative of the Ayrshire Archæological and Natural History Society. The event was memorable in many ways: first because a centenary is in itself an honourable occasion, and the Dumfriesshire and Galloway Society has a distinguished record to commemorate. Secondly, there was a time when Dumfries, Galloway and Ayrshire, as constituent parts of the ancient kingdom of Strathclyde, all combined to form a single Society, producing sumptuous volumes; and when it brought its activities to an end the old spirit of co-operation remained. Thirdly, it was the spirit of this old tradition that inspired Dr R. C. Reid, of Dumfries, to become one of the founding fathers of our present Ayrshire Society. He started his propaganda before the war, and I remember how he used to approach me on the subject at the odd times when our historical interests brought us together in Edinburgh. Finally, when hostilities were over he renewed his campaign in alliance with the Glasgow Society. Our relations have always been of the friendliest, and our treasurer and myself are proud to be subscribing members of both bodies. It therefore gave us peculiar pleasure to attend the centenary celebrations at Dumfries in a personal as well as in a representative capacity. We found ourselves in a select company of honoured guests from both sides of the Border—from Stranraer and Wigtown north of Hadrian's Wall and Newcastle-on-Tyne and Carlisle to the south. This reminded us that in the archæological field Dumfries and Galloway belong to the days before Cheviots and Solway formed the historical Border. We heard much about Romans and natives, but the natives were neither Scots nor English as we know them; and the

Solway Firth presented a natural trade route rather than a national barrier. It is therefore natural that there should be much co-operation between Newcastle-on-Tyne and Cumberland and Westmorland to the south of Hadrian's Wall and Dumfries and Galloway to the north.

The centenary celebrations began with a civic reception accorded by Dumfries Town Council on the Friday evening. It was a happy occasion when the Provost, Magistrates, Councillors and the Bar welcomed us in their robes of office with the attendant majesty of " the Provost's man," a handsome halberdier resplendent in a gorgeous crimson velvet uniform and bearing a brightly burnished Jeddart axe. He symbolised the storied past and conjured up shades of Border raiders, Johnnie Armstrong and the lawless Graemes, meet objects for rough and ready justice. On Friday night, however, the Town Council were not " justifying " rebels but entertaining guests with orchestral music, solos and country dancing. The continuity of history was seen also in the membership of the Antiquarian Society. The president, Major-General J. Scott-Elliot, remarked that a roll call of the names of his predecessors in office would read curiously like a membership list of the present day. After the welcoming speeches and the concert came buffet refreshments and social intercourse in which the evening sped happily away.

Saturday's proceedings took place in the County Buildings, which were artistically decorated with banks of chrysanthemums for the occasion. Major-General Scott-Elliot presided with consummate skill and military precision over a programme of four excellent lectures; two in the forenoon with an interval for coffee, and two in the afternoon, followed by tea. The first speaker was Professor M. F. M. Meiklejohn, of Glasgow University, who spoke about " Ornithology in the Twentieth Century." He used the occasion of the centenary to look back for fifty years as well as to turn a glance into the future. He was particularly suited to talk on this subject as his father before him had been a distinguished ornithologist. In 1912, he

said, ornithology was a very simple study and was indeed largely a pastime. There were few books on the subject, equipment was simple, and the chief activity was bird watching and egg collecting. He described the advances which had been made and suggested profitable subjects for future study. His whole talk was not only informative but enlivened by a fine humour.

After the coffee interval Professor Eric Birley, of Durham, spoke on " The Investigation of Roman Dumfriesshire, 1862-1962." From the very birth of the Society it was recognised that Dumfriesshire presented a rich field for Roman studies, and Professor Birley was happy to praise several famous names, among them two with an Ayrshire connection, namely, Dr James Macdonald, Rector of Ayr Academy, and his more widely known son, Sir George Macdonald. Above all, he singled out Dr R. C. Reid, to whose enthusiasm, initiative and generalship the Society owed a deep debt of gratitude. It gave universal pleasure that Dr Reid, infirm in body but indomitable in spirit, was able to be present for part of the proceedings. Deep and whole-hearted were the expressions of devotion to the leader who had inspired the Society's activities for some five and thirty years. Saturday was, in a very real sense, Dr Reid's day. His presence added the crown to the centenary celebrations. Professor Birley also showed how the scope of work had extended, especially with reference to the Roman road system. In this field much spadework still remains to be done in the localities; and this applies also to Ayrshire.

In the afternoon Mr Ralegh Radford introduced the ecclesiastical side of the Society's interests in an able and stimulating talk on the Abbeys of Galloway. He traced evidences of Christianity back to Roman times and indicated some aspects of its development, besides indicating some of the ways in which antiquarians could help to throw further light on the obscure subject of the most ancient sites by accumulating various kinds of subsidiary evidence.

Finally, Professor Stuart Piggott dealt with "Scottish Prehistory; Retrospect and prospect." He commented on the difficulty which our forebears felt in constructing a chronology, in classifying field monuments and in interpreting smaller finds, and gave a short history of developments. He showed how there was room for co-operation between the professional and the amateur, between the lecturer and his audience.

All the speakers in congratulating the Dumfriesshire and Galloway Society on its honourable record over one hundred years, declared that in the past lay a challenge for the future, and wished it well as it set out on its second century; and it was further cheered on its way by several telegrams of congratulations. The members themselves had spared neither labour nor expense in their hospitality to their guests. They were generous and friendly, enthusiastic and well disciplined: obviously in good heart to face the future. On behalf of their younger sister, the Ayrshire Society, and for all my readers, as well as for my own part, I wish them Godspeed.

ARTICLE 2

From Jubilee to Centenary

A History of the Dumfriesshire and Galloway Natural History and Antiquarian Society from 1912-1962

PRESIDENTIAL ADDRESS

By Mrs M. D. McLEAN, 12th October, 1962

Many of you will have read the admirable history of the first 50 years of our Society delivered as his Presidential Address on the occasion of its Jubilee, 20th November, 1912, by the late Sir Hugh S. Gladstone, a distinguished and erudite President. That history which appears in the 1913 volume of our Transactions (Third Series, Vol. 1) extends to 35 pages and is a model of clarity, accuracy and meticulous documentation. It is further graced by a complete record of photographs of past presidents, the originals of which hang on the walls of the Ewart Library where our meetings are held. Sir Hugh's address tells the story of our Society from its first meeting in 1862 when Sir William Jardine of Applegirth took the chair; it enumerates the many distinguished members down the years from Sir James Gilchrist of Crichton Royal and Earl Loreburn, historian and politician, to Joseph Thomson, African explorer; William McDowall, journalist and historian; Richard Rimmer, eminent conchologist; James Barbour, architect and archæologist, and many other men of note; it records the part played by the Society in such undertakings as the preservation of Lincluden Abbey and of the Old Bridge across the Nith, and in the initiation of excavations at Birrens, Burnswark, Lochrutton and Raeburnfoot and is indeed a record worthy of its author and his subject.

Since that more leisured day and age two world wars have not only increased the tempo of our lives and perhaps spoilt our capacity for concentrated listening, so that lengthy papers are regarded as more of an imposition than a pleasure, but printing costs have risen to such

astronomical heights that the editorial pencil is rather more ruthless than in bygone years. And so, ladies and gentlemen, just as your retiring President of to-day is but a poor shadow when compared with that giant of 50 years ago so also must my continuation of the History which he began be necessarily—and indeed desirably—dwarfed by his. Nevertheless in a more restricted field I shall try to place on record for posterity my research into the work and witness of our Society which has weathered many difficult times to become the successful organisation which it is to-day.

1912-1920

Let us begin, then, with our fiftieth birthday celebration to which the two local newspapers devoted almost their entire issues—a truly generous gesture. The occasion was celebrated in Dumfries Town Hall on 20th November, 1912, by the holding of a conversazione at which 200 members and friends, including representatives from Hawick and Glasgow Archæological Societies were present. The conversazione—delightfully old-world term—was, I feel, rather inaptly named. There must have been little time for conversation since, in one short evening, in addition to the Presidential Address which I have already mentioned, three papers were delivered by distinguished past presidents. Sir James Crichton-Browne spoke on *The possibilities of Societies such as ours,* Professor G. F. Scott-Elliot on *Natural History—some advances in fifty years,* and Sir Herbert Maxwell on *The true principles and purposes of archæology,* a dazzling galaxy of stars indeed. On the face of it the membership list seemed in a healthy state. The added interest of the Jubilee brought the numbers up to 490 which at five shillings per head must have been reasonably reassuring to the Treasurer of that day. And so, under its President, again Sir Hugh Gladstone, with his Honorary Secretary G. W. Shirley and Honorary Treasurer M. H. McKerrow, the Society moved forward to Session 1913-14. Anxiety as to the cost of printing the lengthy Presidential

Address proved well founded and the Society, despite a generous financial guarantee from the President, deemed it prudent to increase its subscription from 5/- to 7/6. Some excellent papers figure in the Transactions of that year such as Dr George Neilson on *Dumfries: its burghal origin;* Sir Philip J. Hamilton-Grierson on *The protocol book (1541-1550) of Herbert Anderson;* R. S. Gordon's *List of the Macro-Lepidoptera of Wigtownshire,* and Bertram McGowan's continuation of his *List of Coleoptera of the Solway district.*

The outbreak of the first World War seems to have had little effect on the quality of papers contributed to the Society. The President shed much new light on an old controversy with his paper on *Maria Riddell, the friend of Burns,* while G. W. Shirley published his still valuable *Notes on the topography of Dumfries.* It is in this particular year that a name first appears which was to mean much to our Society in later years, that of R. C. Reid who became editor of our Transactions, an office which he has held, with only one interruption, throughout these long years.

In the following session, 1915-16, with officers of the Society remaining the same except for G. W. Shirley who was on war-time service, our ship sailed into troubled waters. The current volume of Transactions was reduced to 105 pages and the Council decided not to publish the subsequent volume and to return the subscription to 5/-. Yet, despite the war, it is noted that attendances reached what was then, apparently, a record total at the February, 1916, meeting, when 20 members were present. The Society regained lost ground in 1916-18 with the publication of a double volume of Transactions which contained a well-illustrated paper by W. G. Collingwood on *The Ruthwell Cross in its relation to other monuments of the early Christian age,* but in the following session found itself again in low water. A circular asking for financial aid to keep the Society alive was sent out and as a result £84 was collected. That made possible the publication of Transactions for 1918-19 and 1919-20 but in the following session,

1920-21, the subscription was doubled from 5/- to 10/-, a somewhat hazardous step.

1920-1930

Still guided by the same redoubtable team of office-bearers, Sir Hugh Gladstone, G. W. Shirley, who became for a time editor of the Transactions as well as honorary secretary, and M. H. McKerrow, the Society moved into another decade with fresh heart. In 1920-21 there appeared George MacDonald's paper *The Romans In Dumfriesshire* and R. C. Reid's *The Baronies of Enoch and Durisdeer* and in 1921-22 the President contributed his *Notes on the birds of Dumfriesshire* which contained much additional material gleaned during the ten years since his well-known book, *The birds of Dumfriesshire,* was published in June, 1910. The volume for 1922-23 was also notable for the inclusion of *A bibliography of Annan* by Frank Miller, a most useful record, and *The Culvennan writs* by R. C. Reid which was illustrated by fine colour reproductions of Gordon family portraits. It was during this session that, as a result of Dr Reid taking W. G. Collingwood round Galloway, we were able to publish that remarkable paper by an outstanding contributor, Collingwood's *The early crosses of Galloway.* In March, 1923, the Society sponsored an illustrated lecture in Dumfries Academy when Professor Graham Kerr spoke on *Animal camouflage* and in the following session the experiment was repeated when J. Graham Callander of the National Museum of Antiquities of Scotland lectured on *Dumfriesshire in the Stone, Bronze and Early Iron Age.* A paper of long-term usefulness which appeared in the 1923-24 Transactions was *Natural determinants of routes in Lower Nithsdale* by J. D. Ballantyne, a local geographer, which showed how early man in making his roads followed the natural routes around Dumfries.

Session 1924-25 was distinguished by a paper on *The Sheriff Court Book of the Sheriffdom of Dumfries, 1577-1583,* kept by Andrew Cunynghame and abstracted by Sir Philip J. Hamilton-Grierson, and in the following year

appeared *The Excavation of Auchencas* by R. C. Reid. October, 1926, found the Society appealing—as it has done many times since—to local photographers to aid in making a complete photographic survey of Dumfries in view of the many changes imminent. To our regret, then as now, it met with no success, although succeeding members of the Camera Club were known to be sympathetic and interested.

Dumfries Academy was again the venue for a public lecture in November, 1927, when J. M. Corrie gave his paper *Kirkcudbrightshire in the Stone, Bronze and Early Iron Ages* and the Transactions for this particular year contained an article of considerable historic interest, *Gretna Green Marriages in the legal aspect* by David C. Herries, which records, in the form of an appendix, the whereabouts of all known Gretna Green Registers compiled by G. W. Shirley, still an invaluable tool.

1928-29 saw a change in office-bearers when G. W. Shirley resigned from the Secretaryship and editorial chair, to be replaced for a short term by Miss L. R. Andrews, and thereafter by Mrs Shirley. Tribute was paid to Mr Shirley by the President who remarked with truth that not only had he performed his secretarial duties with zeal and ability but he had also raised the Transactions to a standard of excellence which placed them in the forefront of similar publications. At this time the Society with its membership of 250 plus 36 Life members was in debt to the tune of £131 but was rescued from bankruptcy by an anonymous donation of £110, the remainder being raised by increasing life membership from 6 gns. to 7 gns.

1930-1940

It was in 1930-31 that the Society reached the end of an epoch when its President, Sir Hugh Gladstone, who had held office since 1909 and who had nursed the Society through many difficult times, resigned in favour of the retiring Treasurer, Mr M. H. McKerrow, who had proved a generous friend indeed. The Transactions for that particular year might appropriately be called " The Deil's Dyke

volume " for contributions on that subject appear by R. C. Reid and Dr William Semple as well as a paper by W. G. Collingwood. Probably of greater moment to the people of Dumfries at any rate was the paper by G. W. Shirley on *A group of Burial Urns found at Palmerston, 1930,* which tells the exciting story of one of the most important archæological finds within the burgh.

August, 1931, saw the help of the Society being sought in solving the problem of the Observatory Museum which was then under the management of a Board of Trustees who found themselves in debt to the extent of £1300. A small committee was formed consisting of representatives of Dumfries Town Council, our own Society and the Trustees themselves and deliberations proceeded for several years while the Museum remained moribund until a solution, which will be recorded later, was found.

The Transactions for 1931-32 and 1932-33 were again published as a double volume and contained many papers of distinction including G. W. Shirley's *Dumfries printers in the eighteenth century* and *Unpublished letter of Joanna Baillie to a Dumfriesshire Laird* by Mrs W. H. O'Reilly. A further double volume covered the years 1933-35 during which period R. C. Reid occupied the presidential chair, an office which he retained until November, 1944. This particularly interesting volume contained such valuable papers as *The Mansfield manuscript* by Frank Miller and *Sanquhar Kirk Session* records by the Rev. William McMillan. In 1934 we find the Society making vigorous protestations to the Ministry of Works regarding Torthorwald Castle, then in a state of extreme dilapidation.

Session 1935-36 proved a particularly active one for our Society. Not only was it intimately concerned with the rehabilitation of Dumfries Burgh Museum which had eventually been taken over by Dumfries Town Council, but it concluded an agreement whereby its own Museum was transferred on long loan to the newly furbished Observatory. This was also the year in which R. C. Reid, with the cooperation of G. W. Shirley, commenced to calendar and

arrange the burgh records of Dumfries, which, since the old Town Hall fire on 20th November, 1908, had been inadequately housed in sacks. A new basement area was created within the Ewart Library and the monumental task was assiduously pursued by Dr Reid until eventually the documents were filed in record cases and made readily available for research. It may be helpful to mention here that they are now under the care of Mr A. E. Truckell as Burgh Archivist and are housed in Town Council premises and not in the Library. It was in this session also that Sir Hugh Gladstone gave his paper on *Thomas Watling, limner of Dumfries,* a convict who became one of the earliest artists to portray the fauna of New South Wales, probably one of the finest pieces of research conducted across the continents of the world which the Society has ever published, and the name Eric Birley began to figure in our Transactions with his article on *Excavations at Birrens.* In addition to R. C. Reid's paper on *The mote of Urr,* the Duncan brothers compiled *A list of heronries in Dumfriesshire and Kirkcudbrightshire* and Dr W. Douglas Simpson undertook a reconsideration of the two castles at Caerlaverock while R. G. Collingwood gave his important paper on *The Kirkmadrine inscriptions.*

To cover the years 1935-36 the Society again resorted to a double volume of Transactions. Two events, the outbreak of World War II. and the death of G. W. Shirley, shook the Society to its foundations and from this period forward changes in office-bearers became so frequent that I do not propose to mention them all in the text of my paper although I have compiled a fully detailed list covering 50 years, giving names and dates of succeeding Presidents. secretaries and treasurers which will be published as an appendix to this address. It is abundantly clear, however, that for the major part of the War R. C. Reid was carrying the Society entirely on his own shoulders, functioning both as President and editor and sometimes even as secretary. Nevertheless the standard of papers shows no decline. At this period in its history, aided by

grants obtained from various bodies by the indefatigable Dr Reid, the Society opened up a new chapter in the story of Roman Scotland in which it may well take pride, as witness the paper by Eric Birley and I. A. Richmond on *The Roman fort at Carzield* which appeared in the 1939-40 volume. It also arranged joint excursions with the Glasgow Archæological Society who met our members at Ruthwell Cross and Caerlaverock Castle, and with the Newcastle Society whom we joined at the Roman Wall just before the outbreak of war.

1940-1950

That the double volume for 1940-44—the peak of the war years—was not published until 1946 is understandable. Indeed it is something of a miracle that it was published at all. Nevertheless the quality of papers remained high with the inclusion of *Comlongan Tower* by Dr W. Douglas Simpson, *The Culvennan and Gordon MSS* by R. C. Reid and Professor F. Balfour-Browne's *The aquatic coleoptera of the Solway up to date.* At the meeting of 13th March, 1942, the Society was able to extend its congratulations to its good friend, Sir Hugh Gladstone, on the occasion of his knighthood and in the following year our Council was the recipient of much useful material, comprising an unpublished History of the parish of Kirkmahoe, from the estate of the late Mr A. Cameron Smith. From Session 1945-46 onwards our Transactions again appeared annually in single volumes. Under the vigorous secretaryship of Professor F. Balfour-Browne, who occupied that office for six years during which he revised the Rules and placed the Society's affairs on a businesslike footing, we again began to flourish. It was in this decade that John Clarke, himself a local man, began his remarkable series of excavations at Tassieholm, Beattock and at Carronbridge, and further important work in the area was carried out by I. S. Richmond, Dr St. Joseph and Eric Birley whose excavation of the Roman Fort at Carzield opened up a complete new vista in archæology. Natural History was, however, not forgotten for in this

period also the Society published *A list of birds of the Stewartry of Kirkcudbright* by a former President, Arthur Bryce Duncan, and of continuing value is Mr James Robertson's paper on *Roman roads in Annandale.* Indeed, by 1947 it was clear that archæology from being the pursuit of the scholar was fast becoming a popular subject with the man in the street and the first Summer School of Archæology was organised in Scotland whereby much needed recruitment of younger field workers and helpful financial support was forthcoming.

It was in Session 1948-49 that the Society's most publicized and sought-after volume appeared. I refer, of course, to *The Whithorn volume.* This record of the latest research into St. Ninian and his church by such distinguished contributors as C. A. Ralegh Radford, Gordon Donaldson, Dr W. Douglas Simpson and Mrs N. K. Chadwick earned congratulatory reviews in the national press and in academic journals and created a demand on the part of Universities and students all over the world which has never abated. It was followed in the next session by an account of various further excavations at Whithorn again by C. A. Ralegh Radford and Natural History was well served by the Presidential Address given by Professor F. Balfour-Browne on *The distribution of animals and plants.*

1950-1960

The Society entered the next decade, 1950-60, under the energetic Presidency of Mr Angus McLean. A wide variety of papers was delivered and published in 1950-51 including Brian Hope Taylor's *Excavations at Mote of Urr,* Dr G. S. Pryde's essay on *The Burghs of Dumfriesshire and Galloway* and Sir Thomas Innes of Learney's paper on *The heraldry of Douglas of Morton.* During this session the Society once more considered its finances and was forced to raise its subscription from 10/- to 15/- with Life Membership rising from seven to ten guineas. From that year thenceforward the editorship of the Transactions was shared between Dr Reid and Mr A. E. Truckell whose display of

local material from Dumfries Burgh Museum at the close of our winter meetings is much appreciated by members. In the following year, 1951-52, a paper of major worth was contributed by Professor I. A. Richmond entitled *The Roman Fort at Glenlochar* illustrated with remarkable aerial photographs by Dr St. Joseph. In addition, Dr Gordon Donaldson, the well known Church historian, gave his paper on *The Galloway Clergy at the Reformation.*

Some outstanding papers on the history of Lochmaben appear in the volume for 1952-53 by such experts as C. A. Ralegh Radford, Eric Birley and R. C. Reid and we note an interesting article by W. A. J. Prevost on *The drove road into Annandale.* The Society was much involved in the second School of British Archæology held in Dumfries from July 24th to 28th, 1953. Although outdoor excursions were unhappily marred by heavy rain, indoor lectures by Professor Stuart Piggott and many others held the 200 participants enthralled.

In 1953-54 under the Presidency of Mr David Cunningham, who, with his wife as an able secretary, proved an excellent team, the Society again revised its rules and in that year appeared Mr John Clarke's *Interim report on excavations at Carronbridge* in addition to John McQueen's first paper on *Welsh and Gaelic in Galloway* and Douglas Young's *The extent and degree of Romanisation in Scotland* into which had gone much intensive research. The Society revived its public lectures by inviting Dr George McLeod to talk on *Iona* in Dumfries Academy and our members were honoured by the election of Dr R. C. Reid to the Presidency of the Scottish History Society, the only president ever elected who was not also a professor of history.

Of major interest in the following year was R. W. Feacham's article on *Iron Age and early mediæval monuments in Galloway and Dumfriesshire* with Mr A. E. Truckell's *Early shipping references in Dumfries burgh records* which was continued in Session 1955-56. In that year the Society marked the retirement of Mr James Lamb

of *The Dumfries and Galloway Standard* who had set up the type for our Transactions over the long period of 44 years. Outstanding in this particular year is the paper on *The Roman Fort at Dalswinton* excavated jointly by Professor I. A. Richmond and Dr St. Joseph after its discovery from the air by the latter. As Eric Birley, who himself continued the work in a subsequent volume, has said "These two gentlemen have placed not only this Society but every student of Roman Britain in their debt." This year was a vigorous one as regards excavations which were undertaken at Amisfield Tower and Terally, Wigtownshire, and an interesting find of a Bronze Age cist at Mainsriddle is recorded.

From 1957 onwards during Dr James Harper's period as President rising costs again forced the Society to raise its Life membership from ten to fifteen guineas and its annual subscription from 15/- to 21/-. Happily, generous Carnegie grants have enabled the Society to carry on in the intervening years at this figure which still enables us to publish such papers as *The priory of St. Mary's Isle* in 1957-58 and in the ensuing year *The Bonshaw titles,* both by R. C. Reid, and also *The road into Ayrshire;* a record of the work of John Clarke and Alan Wilson.

The untimely death of our President-elect, Mr James Irvine, caused the election to the chair of Mrs M. D. McLean, Honorary Librarian to the Society, and the retiring President, Dr James Harper, opened Session 1959-60 with a fine address on *Some Dumfriesshire doctors* with special reference to Dr Andrew Halliday.

One recalls the programme of lectures in these past three years with a sense of pleasure not yet dulled by time. A varied programme included such speakers as Professor M. F. M. Meiklejohn on *Sardinia and its birds,* Miss Rosemary Cramp of Durham University on *Anglo-Saxon sculpture in Dumfriesshire,* Ian McIvor of the Ancient Monuments Commission Inspectorate on *Excavations at Caerlaverock Castle* and Professor A. C. O'Dell on *St. Ninian's treasure,* about the rightful ownership of which

there has been, in the interval, much stormy debate and, of course, our own Mr James Taylor's delightful series of nature talks.

1960-1961

The first years of the present decade, 1960-61, started no less promisingly with a well-illustrated lecture by Dr Beattie on *The National Library of Scotland,* a paper by T. V. Smout on *The commerce of Dumfriesshire and Galloway in the 50 years before the Union of Parliaments,* and a talk by a new and valued friend of the Society, Dr A. Charles Thomas, on *The Pictish symbols.* In the following year, 1961-62, for which papers are now in the Press, the Society was equally adventurous with talks on subjects ranging from *Prehistory in East Africa* by Dr W. M. Bishop to *Scottish Bookbinding* by Dr W. S. Mitchell, and Major-General Scott-Elliot gave the first of what I am sure will be a series of descriptions of Excavations carried out by him on behalf of the Society at various sites in the county. Miss Helen Nisbet's lecture on *The Criffel Granite and its place in geological history* was a particularly fine piece of scholarly deduction and the Society was also privileged to hear the first pre-publication talk on *The Third Statistical Account of Dumfriesshire* by its editor Mr George Houston.

FIELD MEETINGS

In assessing the work of our Society over these past 50 years we must not forget the long series of enjoyable field meetings held during the summer months and extending from the Roman Wall in Northumberland in the south-east to the farthest reaches of Wigtownshire in the west, culminating in our Centenary Year excursion to the Marine Biology Station at Millport, June, 1962, in which nearly 70 members took part. Not only do these meetings—usually four to six are held during the months May to September—keep our members in contact but, as a result of informed commentaries by knowledgeable guides belonging to our own Society, they serve to bring to life the world of Nature

and the historic monuments and sites in which our area is so rich.

THE SOCIETY'S LIBRARY

At date the Society's Library comprises 3414 items, including Proceedings of many other learned societies who have sought to exchange their publications with ours. Bookstock is integrated with the stock of the Ewart Library which has been the Society's headquarters for over 50 years. Considerable interest was aroused in recent years by the addition of a photo-copy of maps made by General William Roy (1706-1790), now regarded as the father of the Ordnance Survey, and found by Mr James Robertson, County Road Surveyor, in the British Museum.

CONCLUSION

Looking back through the pages of this review it is clear that our Society has increased in public regard and we cannot but be gratified that its publications are increasingly recognised as being of a standard unsurpassed in any provincial Scottish Society. Although our membership at 372 stands well below the 490 of 50 years ago—and that should and must be a challenge to us all—if is evident that the Society to-day is a much more active and purposive body than it has ever been, with an average attendance of 45 at our meetings. Certainly, under the care of our Honorary Treasurer it is in much better financial heart with a sum of over £1000 to its credit and with the establishment this year of a special Excavation Account to further our work in the field. Down the years the names of Gladstone, Shirley, McKerrow, Reid and their successors have left their indelible mark on the work of our Society and I think we may truthfully claim that, through their united efforts, the finest experts in their various fields have worked in our area and contributed to our journals from W. G. Collingwood of fifty years ago to Charles Daniels of Durham University currently excavating at Broomholm in the 1960's. That there has been a slight swing of interest from Natural

History to Archæology will have been apparent and I think it is in accordance with that trend that our Centenary Year President, Major-General Scott-Elliot, himself an archæologist, should follow in the footsteps of his famous ancestor, Professor G. F. Scott-Elliot, author of *The Flora of Dumfriesshire.* The Society might also take pride in the fact that its President of half a century ago, Sir Hugh Gladstone, like his successor of to-day, was chosen to occupy the high office of Lord Lieutenant of Dumfriesshire. In wishing Major-General Scott-Elliot much success and happiness in his Presidential reign, I should also like to thank those who have helped me greatly as Secretaries and Treasurers during my own three years of office, the members of Council for their unfailing support and particularly for the hospitality which they have given to our speakers, and the Press for their generous publicity.

Let us make no mistake about it, ladies and gentlemen, in a world in which the winds of change are blowing with almost terrifying force, men are conscious as never before of the traditions and lore of the past and of the need to keep them alive. To our Society belongs the task of illuminating the dark days of history in this south-west corner of Scotland and of training a microscope on the wonders of the natural world—let us not fail to meet the challenge as we prepare to enter the second century of our history.

The Principal Office-Bearers of the Dumfriesshire and Galloway Natural History and Antiquarian Society, 1912-1962

PRESIDENTS

HUGH S. GLADSTONE, M.A., F.R.S.E.—20th October, 1909, to 18th October, 1929.
FRANK MILLER—18th October, 1929, to 31st October, 1930.
M. H. McKERROW—31st October, 1930, to 27th October, 1933.
R. C. REID—27th October, 1933, to 25th November, 1944.

ARTHUR BRYCE DUNCAN—25th November, 1944, to 25th January, 1946.

Dr T. R. BURNETT, B.Sc., Ph.D.—25th January, 1946, to 21st October, 1949.

Professor F. BALFOUR-BROWNE, M.A., F.R.S.E.—21st October, 1949, to 27th October, 1950.

ANGUS McLEAN, B.Sc.—27th October, 1950, to 9th October, 1953.

DAVID CUNNINGHAM, M.A.—9th October, 1953, to 12th October, 1956.

Dr J. HARPER, M.B.E.—12th October, 1956, to 9th October, 1959.

Mrs M. D. McLEAN—9th October, 1959, to 12th October, 1962.

Major-General J. SCOTT-ELLIOT, C.B., C.B.E., D.S.O.,—12th October, 1962.

HONORARY SECRETARIES

G. W. SHIRLEY—21st October, 1910, to 19th October, 1928 (except for war years 1915-9 when interim secretaries Robert Wallace and James Flett acted on his behalf).

Miss L. R. ANDREWS—19th October, 1928, to 31st October, 1930.

Mrs E. SHIRLEY—31st October, 1930, to 12th April, 1935.

J. EGARR—12th April, 1935, to 10th April, 1936.

THORNTON L. TAYLOR—9th August, 1936, to 20th October, 1936.

J. B. McGOWAN—20th October, 1936, to 27th March, 1941.

R. C. REID—27th March, 1941, to 12th March, 1943.

Professor F. BALFOUR-BROWNE—12th March, 1943, to 21st October, 1949.

DAVID CUNNINGHAM, assisted by Mrs D. Cunningham—21st October, 1949, to 31st March, 1951.

R. COPLAND—31st March, 1951, to 2nd November, 1951.

Mrs C. F. SERVICE—2nd November, 1951, to 19th August, 1953.

Mrs D. CUNNINGHAM, assisted by Miss M. L. Fairbairn—9th October, 1953, to 13th October, 1957.

B. D. F. HARRIS, assisted by Miss M. L. Fairbairn—13th October, 1957, to 9th October, 1959.

ALEX. ROBERTSON, assisted by Miss M. L. Fairbairn—9th October, 1959, to 13th October, 1961.

Mrs S. M. WEEKS, assisted by Miss M. L. Fairbairn—13th October, 1961.

HONORARY TREASURERS

M. H. McKERROW—3rd June, 1905, to 31st October, 1930.
Miss H. RAFFERTY—31st October, 1930, to 1st October, 1935.
WM. DINWIDDIE—1st November, 1935, to 30th October, 1936.
W. R. DICKSON—30th October, 1936, to 10th March, 1944.
CHARLES BOWDEN—10th March, 1944, to 21st October, 1949.
W. P. FORREST—21st October, 1949, to 27th October, 1950.
A. J. M. FLINN—27th October, 1950, to 31st March, 1957.
D. A. MacCALMAN—31st March, 1957, to 9th October, 1959.
A. RAE—9th October, 1959, to 14th October, 1960.
W. GALLAN—14th October, 1960, to 6th December, 1961.
H. M. RUSSELL—6th December, 1961.

ARTICLE 3

The Observatory Museum, Dumfries

By A. E. TRUCKELL, M.A., F.S.A.Scot., F.M.A.

The Dumfries and Galloway Natural History and Antiquarian Society came into existence in November, 1862. In November, 1834, 28 years before, an informal meeting agreed to form a Dumfries and Maxwelltown Astronomical Society and in January, 1835, a formal meeting ratified this and agreed to purchase and adapt the old stone windmill on Corberry Hill as an astronomical and meteorological Observatory. Despite its title and main purpose, Museum material was donated even at this inaugural meeting: by 1842 the rooms in the old windmill had wall-cases installed: the first printed catalogue, that of 1843, shows already a large and varied collection. From the Antiquarian Society's inception in November, 1862 (in September the Observatory had added the large Main Hall and filled it with cases) its relations with its older sister society were cordial and close, all the more as the two bodies shared a high proportion of their membership.

From the start, material presented to the Antiquarian Society was displayed in the Observatory Museum: astronomical and meteorological observations ceased in 1872, but the Museum collections continued to grow strongly, and in a few years a formal Agreement was drawn up regulating the display of the Antiquarian Society's collections.

By the early 1930's, almost a century after its formation, the Astronomical Society's organisation and finances were proving inadequate and it decided to sell the Observatory buildings, ground, and museum collections. In this emergency the Antiquarian Society took vigorous action, under Mr M. H. McKerrow, its President, himself a member of the older Society, and dipped heavily into its funds to purchase the greater part of the collections. The Society used its powerful influence, mainly through Mr McKerrow, who besides being President was as Town

Chamberlain a senior Burgh official, and Mr G. W. Shirley, Burgh and County Librarian and a Vice-President, to persuade the town to purchase the Museum building and grounds, finance its running, and accept the advice of a sub-committee of the Society on the reorganisation of the Museum collections, Mr Shirley being appointed first Curator.

The extensive world-wide collection of the old Victorian museum was culled to provide a local collection covering the three counties of the Antiquarian Society's area. This took place in 1933 and 1934: in 1935 a formal agreement between the Society and the Town Council regulated their relations.

After Mr Shirley's death in 1939 Mr J. G. Jeffs, who had been Assistant Curator, became Curator and continued the same policies, as did Mr McKerrow, who himself took over as Honorary Curator in 1941, despite advanced age, during the war years and until 1948, when the present curator took over. The Society's Presidents, past Presidents, and Council members have always been strongly represented on the Committee which now controls the Museum.

The Museum's collections therefore represent the Society's collecting and excavation work over a long period, and it is a symptom of the Society's centenarian vigour that these collections have been growing faster, through the work of the Society's members, since the War than ever before, Dr Reid (from the beginning a staunch supporter of the Museum) and, more recently, Mr Cormack of Lockerbie, being particularly prominent in this field.

As the result of all this, the Museum has become a miniature National Museum for the region, with important groups of material in every major field. The Geological material covers our area from roughly a thousand million years ago to the post-Glacial deposits represented by the Preston Merse red-deer antlers and the magnificent Bos Primigenius skull from under the peat at Lockerbie. It includes a notable display of local minerals and of reptile

footprints in the Permian beds from Corncockle and Locharbriggs.

The Society's herbarium, arranged by its former President, the late Professor Scott-Elliot, is available for researchers at the Museum. Birds and animals of the area are strongly represented and there is a growing marine biology section.

Archæology makes up a considerable proportion of the display—as it should, with over a thousand archæological acquisitions each year. It ranges from groups of Late Larnian and "Tweed Valley" Mesolithic flint and chert material from the West and East of its area respectively, through the large Neolithic collection of flint and pitchstone implements and pottery (including many Primary Neolithic rims), Bronze Age flints, pottery, bronze weapons, the Mainsriddle Beaker burial. The Iron Age material includes the ard (plough) from Whitereed Moss, and the very large Roman collection the Minerva, Harimella, Viradecthis, Neptune and Fortune altars, the Afutianus Bassi tombstone, the Birrens (Burnfoot) head of an unknown god or goddess, and many thousands of pieces of pottery and other finds from the Roman forts of the area, from Broomholm in the East to Gatehouse in the West.

The Early Dark Ages are represented by material from the late 5th-century site at Blacketlees, the 6th-8th century site at Mote of Mark, the simple chrismed slab from Ruthwell, and the 7th-century bracteate and other material from Tynron Doon, "Whitby" whorls, and the like: the ninth and tenth centuries by Northumbrian coins, Norse axes, and the 10th and 11th by the very fine display of interlace-work ornamented cross-shafts decorating the Dark Age Room. The Mediæval Room carries the story on from about 1100 to roughly 1600 with its large collections of coins, pottery, footgear, personal ornaments, documents, early prints of local castles and so on—Lochrutton Crannog alone yielded 1200-odd pieces of pottery and the brief 1922 excavation at Holywood Abbey over 250.

The urban life of Dumfries and the crafts of the countryside are well represented and within recent years dress and Victoriana has begun to loom large.

With over ten thousand objects from the locality on display, and with good office accommodation and reference resources, the Museum acts as a centre for research and as a focus for many of the Society's activities.

ARTICLE 4

The Upper Old Red Sandstone Rocks Near Kirkbean, Kirkcudbrightshire

Miss H. NISBET, M.A., B.Sc.

The oldest rocks on the south-eastern flank of Criffel are sediments of presumed Upper Silurian age. They consist of alternations of tough, pale grey and greenish-grey fine-grained sandstones, flags and siltstones, sometimes micaceous, with dark blue or green mudstones, sometimes banded; very rarely, dark shale bands occur. Although acutely folded on a minor scale, these beds have a south-easterly regional dip. Careful search through the literature has failed to reveal the basis of the often-repeated statement that Wenlock graptolites and an orthoceratid have been found in Kirkbean Burn; the Wenlock age of the strata is assumed, but has not been firmly proved.

Into these folded rocks the Criffel granodiorite pluton was intruded in Lower Devonian times (Phillips, 1956), assimilating them at its margins and causing contact metamorphism. After the outer shell of the pluton had cooled, a large number of porphyrite dykes were intruded through it, penetrating the country rocks with explosive violence. A period of erosion followed, and the resulting land surface was extremely irregular, owing to the toughness of the pink porphyrite dykes (known locally as "bastard granite"), which projected as ribs above the more rapidly weathered sandstones and mudstones.

Then, apparently, the pluton made a final heave upwards; a N.E.-S.W. fault developed on its flank, and the area to the S.E. was lowered sufficiently to receive sediment in Upper Old Red Sandstone times.

OUTCROP OF THE OLD RED SANDSTONE ROCKS

The extent of outcrop of the Upper O.R.S. rocks is difficult to delimit owing to the very poor exposure. Apart from an almost inaccessible strip of red and grey mudstones in Gillarthur Wood (Drum Burn), sediments are seen only

in Kirkbean Burn and Airdrie Burn, where they rest on the Silurian rocks. Tiny exposures of much-decomposed vesicular lava can be traced from Nimbly Burn in the N. almost as far as Torrorie in the S.W., but this forms only a thin skin which in places is broken through by small crags of porphyrite and Silurian rocks. The junction with the overlying Carboniferous rocks on the E. is very ill-defined.

THE SUCCESSION

The following succession is suggested for the Old Red Sandstone at Kirkbean:

(6) Thin red mudstone	thickness unknown
(5) Basalt lava (=Birrenswark)	15-20 feet
Uncomformity	
(4) Purplish-red sandstone	6-8 feet
(3) Cornstone	15-20 feet
(2) Red graphitic mudstone	up to 25 feet
(1) Grey graphitic mudstone	3-5 feet

Owing to poor exposure and complexity of faulting, thicknesses are difficult to judge, but in the writer's opinion the estimates given by Craig (1956) are rather large.

The red and grey mudstones at the base appear identical in all respects except that of colour. They are fine-grained, soft, non-calcareous, graphitic mudstones, slightly nodular, with a metallic lustre on cleavage-faces when fresh. The cornstones consist of green calcareous nodules in a matrix of shaly mudstone. Locally they appear to rest directly on the Silurian, strengthening the suggestion that the lower beds filled hollows in an irregular land-surface. The sandstone is purplish in colour, with coarse angular and rounded grains, showing slight graded bedding. It consists mostly of quartz and fresh felspar such as might have been derived in the immediate vicinity, i.e., from the Criffel granodiorite. The occurrence of a second sandstone between (2) and (3) is possible.

The basalt overlaps from the lower red mudstone on to (3) and (2), and possibly even on to Silurian, and is over-

lain by small pockets of red mudstone. In places there is associated with the basalt a "flow breccia" of streaky, amygdaloidal lava containing fragments of baked sandstone and veins of calcareous green mudstone. Similar occurrences are not uncommon elsewhere. Possibly the basalt was extruded among wet, unconsolidated sediments.

THE STREAM SECTIONS

The sections in the streams are discontinuously exposed, and greatly complicated by normal and reverse faults usually downthrowing to the N., and by small thrusts. The descriptions which follow are necessarily much simplified.

(a) KIRKBEAN BURN.

A westward traverse from the village passes, broadly speaking, down the succession, from basal Carboniferous through Old Red Sandstone on to Silurian, until it meets the Criffel granodiorite.

Immediately above the Sawmill, hard cementstone (basal Carboniferous) is in faulted contact with vesicular basalt, which is here veined with calcite bearing specks of galena, and has some agate infilling the vesicles. Within the next 200 yards, 15 feet of basalt is seen resting on red sandstone, which in turn rests on red mudstone dipping 35° S.W. Soft grey mudstone occasionally underlies the red mudstone with slight uncomformity. Several N.W.-S.E. faults form waterfalls and throw down O.R.S. on the N.E. against Silurian on the S.W.

From this point westward as far as the foot-bridge, now ruined, the stream runs through a fairly deep gorge whose bed is occupied by strongly folded Silurian rocks, with intrusives, while on the steep banks basalt overlies 20 feet of red mudstone, dipping S.E., with an intervening layer of green ashy mudstone and baked sandstone.

At the foot-bridge a mottled sandy cornstone is faulted down on the W. against Silurian to the E., and for the

ensuing 300 yards (direct) the stream follows a winding course as it flows over the softer beds. Vesicular basalt with a rather slaggy bottom rests on a flow breccia of baked sandstone and green mudstone, underlain by red sandstone, with red sandy mudstone beneath it. The dip is 5° S. Minor faults occur, and ribs of porphyrite occasionally project through from the Silurian floor below.

At the end of this tract the stream bends sharply and flows S.E. by S. in a straight course for 250 yards. This gorge is clearly fault-controlled. Basalt is seen for a short distance on top of the banks; thereafter until the granodiorite junction the stream bed is occupied only by Silurian rocks, in which porphyrite intrusives become more numerous toward the margin of the granodiorite. The basalt is not seen in contact with Silurian rocks, but the structural relations suggest that at the western extent of its outcrop it has spilled over from the area of sedimentation.

(b) AIRDRIE BURN (Prestonmill Burn in lower reaches).

This stream provides a similar section, but here the O.R.S. has a narrow outcrop and Silurian rocks are continuously exposed for nearly a mile.

Below the dam at Prestonmill Bridge, basal Carboniferous cementstone dips steeply S. off vesicular basalt. 200 yards above the bridge, 15 feet of vesicular basalt overlie 10 feet of red mudstone, dipping 5° S. Normally the base of the lava is slaggy and vaguely defined, but here the junction is sharp, a half-inch layer of baked mudstone adhering to the base of the basalt, and the basalt itself so stained as to be almost opaque in thin section. A small fault causes a waterfall and throws down the basalt to the N., where it is overlain by pockets of red mudstone.

Beyond this point there is much faulting. The stream course tends to follow N.W.-S.E. fractures, so that the rocks exposed on one bank frequently bear no obvious relation to those on the other. Mottled cornstone, 15-20

feet thick, dipping 5° S.W., is overlain by 6-8 feet of purplish gritty sandstone, which in turn is overlain by about 15 feet of blocky-jointed basalt for a distance of some 30 yards; after a short gap, the basalt is seen resting on 25 feet of red mudstone, which has been thrust north-eastward over the purple sandstone. On the opposite (i.e., N.W.) bank, grey and red mudstones rest on Silurian and porphyrite.

The stream takes a right-angled bend where the O.R.S. rocks are downfaulted, and thereafter only Silurian is exposed.

The question arises whether there is a single lava flow, resting on a slightly folded and eroded surface of sedimentary rocks, or if there are two or more flows intercalated in the sedimentary sequence. The following points seem to support the former interpretation. (1) Faulting and slight variation in dip are adequate to account for the repetition of a single flow; (2) In both streams, basalt is seen resting on purplish sandstone and on red mudstone with only a few yards of intervening unexposed ground; (3) At no point is any bed seen resting on top of basalt, other than thin local patches of red mudstone; (4) The obvious variation in hand-specimens depends on the state of weathering, and is unrelated to mineralogical variation as seen in thin section; (5) The range of variation over eight representative thin sections is inconsiderable, and is such as might easily occur within a single flow.

CONCLUSION

The sedimentary rocks are unfossiliferous; their age, therefore, cannot be proved directly. Nevertheless it is clear that their deposition was preceded by a prolonged time-interval during which Upper Silurian rocks were folded, intruded by granodiorite and by porphyrite dykes, and deeply eroded.

Deposition of the sediments seems to have been fairly slow, and in shallow water. The grey mudstone at the base

appears to fill hollows in the irregular Silurian floor. A sudden change in conditions—an uplift of the hinterland or a heavy flood—caused the deposition of coarse sandstone; this was followed by a short period of disturbance and erosion before the arrival of a flow of basalt, petrographically similar to the Birrenswark Lavas of Eskdale and Liddesdale.

Despite the slight unconformity, the basalt runs structurally with the red sediments, and together they form a unit which has a south-westerly regional dip, and which is separated by an appreciable unconformity from the local base of the Carboniferous.

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ARTICLE 5

The Mesolithic in Dumfries and Galloway: Recent Developments

By A. E. TRUCKELL, M.A., F.S.A.Scot., F.M.A.

A few years ago, on the appearance of Armand Lacaille's "The Stone Age in Scotland," there was little evidence in our three counties for human occupation prior to the Neolithic: a group of probable Early Larnian flints from Ardwall on the Mull of Galloway: a small number of Late Larnian implements from the Luce Sands: and the Cumstoun red deer antler barbed point from the mud of the upper Dee estuary.

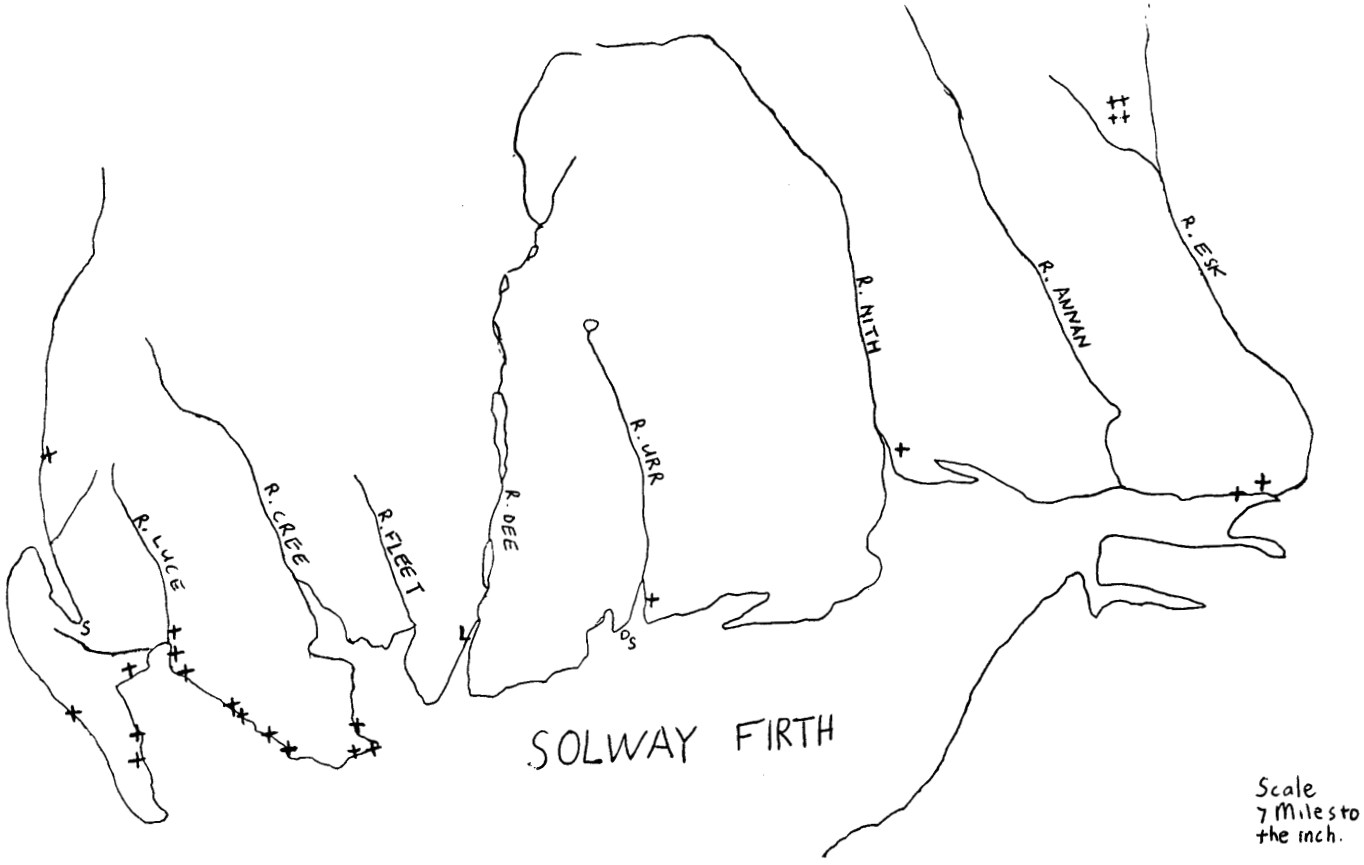
Within a year or two of the publication of Lacaille's book this situation was radically changed by the work of young John Forsyth, then a smallholder and forestry worker at Twiglees on Eskdalemuir—now a policeman at Kelso and still pursuing his collecting. On the bare hillsides around Twiglees—now fast disappearing under young forest—he explored the upcast of the forestry drains, and the bottom of the drains, and found several chipping-floors a mile or more apart. All showed a microlithic industry, in poor-quality chert (there is an outcrop on the Esk, a few miles away), of clear "Tweed Valley" character, with a high proportion of tiny chips, and with the larger pieces and implements showing a coarse though rather complex flaking technique. On the same sites were found a number of small fragments of Arran pitchstone: but as an occasional thumbnail-scraper and a barbed and tanged arrowhead, in good flint, also turned up on the sites the pitchstone could like them be a later contamination. The very large coarse scraper in deep chocolate flint found a mile or two away many years ago and incorporated in Bell of Castle O'er's collection is of a group which has definite Mesolithic associations: the chocolate flint seems to come from the Continent. Less likely to bear a Mesolithic dating are the two large nodules of probably East Anglian flint

found during forestry draining operations on Eskdalemuir in 1961.

Almost at the same time it was found that much flint material, mainly waste, of clearly Late Larnian facies, was turning up on the raised beach at Terally on the East coast of the Mull of Galloway during the excavation of the oriented long cists there. (T.D.G.S. XXXV., pp. 99-101.) Now, in the past year, that indefatigable collector Mr Cormack of Lockerbie has collected Late Larnian material at a number of sites in the Machars of Wigtownshire. One important group comes from the top of the raised beach at Auchenmalg, near the head of Luce Bay, another from Blairbuy near Monreith Bay—the Blairbuy finds come from a quarter mile or so inland from the raised beach. Some miles further East comes another definitely Late-Larnian group from Isle, on the top of the coastal cliff immediately S.E. of Isle of Whithorn, and yet another from Shaddock on the raised beach. All these cores and implements have a heavy white patina, show some weathering of sharp edges, and have been worked in a strong coarse technique—typical cores or implements show a distinctive strip-flaking technique. High pyramidal cores with hollow bases are particularly prominent at Auchenmalg: one flattish core from Isle shows the " strip-flaking " technique very clearly (it should be emphasised at this point that patination alone is a poor guide, as it is difficult to distinguish from accidental calcination by fire, without damaging the flint).

A few pieces of similar technique and patination appear among the hundreds of flints Mr Cormack has collected from the Luce Sands.

Some thirty years ago a large oyster-shell midden was discovered in Stranraer at the junction of Academy Street, Dalrymple Street, and Edinburgh Road, some 600 feet from the present shoreline and with the top of the midden at 34 feet O.D., during Post Office cable-laying. The midden was exposed again when a new cable was being laid some two years ago: it seems to run along the top of the raised beach for at least



General caption Mesolithic Sites in Dumfries and Galloway.
X—Flint Site; S—Shell Midden; L—Leister.

a hundred yards and to be some thirty feet wide if not more. Material from this midden is now in Stranraer and Dumfries Museums (all material so far mentioned in this article, with the exception of the Cumstoun barbed prong, which is in the Stewartry Museum, is in Dumfries Museum).

An oyster-shell midden exists on Heston Island at the top of the raised beach immediately below the farmhouse.

The preceding have all been sites of definite Mesolithic character. We come now to one site which would have been classed as Mesolithic without much hesitation had the material occurred in a Mesolithic context, but which must as it is be classed as doubtful to say the least. During the excavation of one of the Dunans on Chippermore Farm, roughly halfway up the east side of Luce Bay, a few hundred yards inland from the head of the raised beach cliff, it was found that shell-midden material had been used as fill in the interstices of the rubble wall, and that the platform in the interior, built up mainly of subsoil rubble with a little loam, contained numbers of long finger-like pebbles brought from the beach, some showing a little battering at the end, and large numbers of shattered pot-boilers. However shell-midden material occurred both under and above the flagging of the interior, and it seems almost certain that shells, pebbles, and pot-boilers relate to the circular hut which was the primary occupation on the site, antedating the encircling wall: an Iron Age or early Dark Age date would thus be suggested (T.D.G.S., XXX., p. 143).

So far we have said nothing of the Stewartry, apart from the Cumstoun prong and the Heston shell midden. Nothing else of Mesolithic facies had in fact been found so far as was known: but as Mr Stevenson of the National Museum of Antiquities and the writer were examining Dark Age pottery in one of the Mote of Mark drawers there last June they noticed a box filled with over a hundred unmistakeably Late Larnian flints—dismissed by Curle in his report (P.S.A.S., XLVIII., pp. 152 and 164) as "prob-

ably strike-a-lights "—high hollow-based cores, flat cores showing the "strip-flaking" technique, typical blades, and all with some degree of patination. The Secondary Neolithic blade found a hundred yards or so away from Mote of Mark two years ago in Mrs Penman's garden could therefore represent a continuation of occupation of this rocky knoll immediately above the raised beach to a slightly later period.

Finally, in March, 1963, a very fine long blade from the top of the raised beach in Mr Millburn's orchard at Gretna, at the head of the Solway, was handed in to the Museum, with a report that flint was abundant in a field beside Rigg station, also at the top of the beach.

So much, then, for what we have learned so far of these earliest known inhabitants of our district: there is obviously a vast deal more to learn. One obvious course is to look along the head of the raised beach for Larnian industries, now known to penetrate up the Solway at least as far as Gretna, watching particularly for white patination and the characteristic technique — though the patination is not universal and must not, as mentioned before, be confused with calcination due to burning. Flint chips have in fact been reported from the top of the raised beach cliff at McCulloch's Castle, Arbigland, though it is not known as yet whether these have Larnian affinities.

The situation inland throughout our whole area, apart from Eskdalemuir, is a blank. The flint material from the Neolithic-Bronze Age site at Kirkburn, Lockerbie, however, shows in some cases a definite microlithic element, which might indicate an earlier occupation of the site. How far west did the inland, microlithic industries of "Tweed Valley" type extend? The tops of river-terraces in the mid and upper Annan, Nith, Dee, and Ken-Deugh valleys are the obvious places to look. On arable land locating sites and collecting material is not too difficult: in moorland soils already saturated with small shattered stones the task is more exacting. Mr Forsyth's technique was, once he had

established the presence of flakes and implements in the upcast of a drain, to push a paring-spade gently along just under the top of the blue clay which underlay the shallow stony topsoil, and as he did so the tiny chips and blades, some of them to be measured in millimetres, would cock themselves up on end. If sizeable sites do come to light in either the coastal or inland areas, transect excavation is indicated.

However, the field is wide open: all workers are welcome!

POSTSCRIPT

In April, 1963, chips and two blades in blue-grey "Eskdalemuir" chert ware found on the Raised Beach on Townfoot Farm on the Nith estuary; part of a large nodule was found weathering out of the foreshore a few hundred yards upstream; Mr Cormack has found a magnificent flint point (which might be later) and a heavy tubular core in blue-grey chert and a pyramidal core in brown chert, both in unmistakeable Mesolithic technique, at Redkirk Point near the head of the Solway. Further, in May-June, 1963, he has made large collections from Mesolithic sites at Terally, Balgown, Kilfillan, Stairhaven, Low Clone North, Low Clone South, Airlour, Pate's Port (Barsalloch), and Broom Point (Morrach), around the Wigtownshire coast, as well as more material from the previously-mentioned sites. Two of the sites showed some shell debris and one showed dark charcoaly occupation soil. More Arran pitchstone blades and discoids from the Luce Sands have been added, forming a highly distinctive industry of very Mesolithic facies, closely resembling in particular the Eskdalemuir material.

ARTICLE 6

Some Notes on the Geology of Mid-Eskdale

By A. McCRACKEN, B.Sc.

1. THE FOSSILIFEROUS SILURIAN ROCKS

The Silurian rocks in Mid-Eskdale are part of the Wenlock sub-division, and are made up mainly of massive layers of greywacke, which outcrop in the bed of the Esk north of Langholm, and account for most of the few rugged crags on the Eskdale hills. At a few localities, the greywackes have been quarried to provide road-metalling. The rocks have been much disturbed by faulting, and the dips and strikes of the beds vary widely, sometimes within a distance of a few yards. Most of the rocks are metamorphosed slightly as a result of these disturbances.

Occasionally beds of finer sediments occur between the greywackes, and in some of the exposures of these finer rocks, fossils can be found. Most of the fossils are types of graptolites, almost entirely monograptus.

On the farm of Milnholm, two miles north of Langholm, a small exposure of Silurian sediments occurs where a landslip has removed the soil from the bank of the old river terrace, which is about thirty feet high at this point. The rocks are fine-grained mudstones and siltstones, and are almost unmetamorphosed. The graptolites which they contain are well preserved, and are very numerous in some layers. Also to be found in this exposure are the fragmentary remains of a primitive cephalopod, of the Orthoceras type, and one piece of what appears to be a tiny scaly fish has been uncovered.

Across the hills to the west of the Esk valley, in the Craig Burn, is an exposure of black shale. The graptolites to be found here, though fairly numerous, are poorly preserved. They are all forms of monograptus.

A third exposure of fossiliferous mudstones occurs in a small roadside quarry on Whita Hill, by the side of the Langholm-Newcastleton road. The mudstones here have

been slightly metamorphosed, and most of the rocks exposed have been shattered by faulting. One bed, however, in the north corner of the quarry, has escaped the general breaking, and contains well-preserved graptolites. A fragment of cyrtograptus has been found along with the usual monograptus.

By far the most interesting rock, however, outcrops on Wrae Hill, three miles north of Langholm. It is a peculiar greeny-grey grit, and this seems to be its only exposure in the area. The grains of the grit vary in size, but never appear larger than about five millimetres. Most of them are well rounded, and appear to be composed of some form of chalcedonic silica. There are a few grains of clear quartz, and also of quartzite. The colour of the individual grains is usually grey or pale green, but a few are coloured red, pink and bright green. The grit matrix also seems to be of silica. When weathered, the grit is a dark brown colour, and the grains stand out from the surface of the rock. The grit is highly fossiliferous in some exposures, the best hunting-ground found so far being in the crags above the bungalow of Over Wrae. The fossils are fragmentary, but can easily be recognised as pieces of coral, brachiopod shells and crinoid stem segments. The grit does not show any bedding, and the fossils are difficult to spot, except in weathered sections. The weathering has removed all the calcite of the fossil, thus leaving a perfect impression in the matrix of the grit. The crinoid stem segments are particularly well preserved, because of their circular shape and relative thickness. In some cases the star-shaped central column of a crinoid segment has been perfectly preserved.

In view of the fragmentary nature of the fossils, and the absence of bedding in the grit, it is difficult to say whether the fossils are the remains of creatures which died at the time of deposition, or have perhaps been eroded from some older fossiliferous sediment. The absence of fossils in most of the exposure would seem to suggest the former.

2. THE BIRRENSWARK LAVAS

The Birrenswark Lavas form the basal beds of the Carboniferous System in Dumfriesshire. In Eskdale, round the town of Langholm, the Lavas are fairly well exposed. Outcrops occur on Whita Hill, above Langholm; on Warbla Hill, across the valley from Whita; at Skipper's Bridge, one mile south of the town; and at Sowie's Pot, a deep pool in the Esk, quarter of a mile south of Skipper's.

On Whita Hill the lavas form a steep scarp, which has been eroded in places to form small crags. The most northerly exposure on Whita shows the lavas lying on top of Old Red Sandstone sediments. At this point the lavas are much faulted, and badly weathered. They contain nodular masses of a dark-coloured cherty material. The slope of the ground becomes progressively steeper as one follows the line of the lavas southwards. Above, the ground levels off because of the softer Whita Sandstone, and below, the Old Red Sandstone produces a similar effect. Three hundred yards south of this first exposure, by the side of the path from Langholm to the Monument (a hundred-foot obelisk on the summit of the hill), is a small hillock known locally as the Windy Knowe. Here two streams have cut into the lavas, giving a fine section through the rocks. The southern limit of the lavas on Whita is marked by a steep crag, known as Charteris Crag. At both of these latter exposures the rock is badly weathered, and fresh surfaces are difficult to obtain. The rocks can, however, be recognised as a series of basaltic flows. Several vesicular layers are apparent, and at one point the vesicles are so numerous that the lava has the appearance of pumice. In some places the vesicles are filled with small agates. In the Charteris Crag exposure, some fresh surfaces show the "ropey" structure associated with some flows.

Across the valley of the Esk, Warbla Hill is capped by a crag, very similar to those on Whita, although on a

smaller scale. The crag is again composed of lava, vesicular in places, and again badly weathered.

Immediately to the south of Charteris Crag, is an old sandstone quarry, from which the Whita Sandstone has been removed for building purposes. The lavas have obviously been downthrown by a fault at this point, but unfortunately no further exposures occur on Whita. The next definite exposure occurs in the bed of the Esk, at Skipper's Bridge, about a mile south of Langholm. Due to river erosion the surface of the rocks is always fresh and free from soil and vegetation. A few yards upstream from the bridge, the lavas are in contact with Silurian greywackes. Downstream are the Old Red Sandstone sediments. The river has cut for itself a deep rocky pool, walled by the basalts, by eroding the soft underlying sediments. This is one of the deepest pools in the river, and its edges in some places drop vertically for fifteen to twenty feet.

The lavas here are also a series of vesicular flows, but there are no agates filling the vesicles. One spectacular feature of the lavas at this exposure is a pair of fault planes, running across the river. The fault planes are filled with a soft, yellowish material, presumably altered basalt, which contains large angular lumps of the unaltered rock. The river has eroded this softer rock, so that the fault planes are marked on each bank by a small inlet. These two planes are clearly visible, and a third should exist where the lavas are in contact with the greywackes. Associated with these fault planes, and running parallel to them, are a number of small faults and fractures. Some of these are heavily veined with quartz and calcite. One of the quartz veins contains small quantities of galena and iron pyrites. The northern limit of the lavas is marked by a series of rapids, which are probably due in part to the faults already mentioned. To the south, the exposure terminates in a steep bank. A small stream, the Skipper's Burn, enters the Esk at this point, and has cut its way along the junction between the lavas and the Old Red sediments.

A last small exposure of the lavas occurs a few hundred yards downstream from the Skipper's, at a pool known to local anglers as "Sowie." Here the hard basalt stands out from the bank as a ridge, almost like a dyke in appearance. A fault plane is again clearly visible, marked this time by a small stream, which has cut its way along the fault plane, so that on one bank it has exposed the lavas, while on the other bank appear quartzites and sandstones, the basal beds of the Whita Sandstone.

ARTICLE 7

Prehistoric Site at Kirkburn, Lockerbie

By W. F. CORMACK, W.S., F.S.A.Scot.

(Note:—This abridged paper is based on an address to this Society made on 18th January, 1963. A full report is to be published in the Proceedings of the Society of Antiquaries of Scotland. —Eds.)

INTRODUCTION

The site is on a small knoll (Nat. Grid. ref. NY130832) on the Farm of Kirkburn, Lockerbie, Dumfriesshire. It is 220 feet above sea level and immediately adjacent to the principal route in South West Scotland, viz., that leading northwards round the head of the Solway Firth, through Annandale into Clydesdale and upper Tweeddale. The knoll has a fairly thin topsoil 9 ins. or so deep, lying on a red sandy matrix of glacial origin containing many small rounded boulders of local Silurian stone. The ground is good dry arable land.

The writer of this report had been aware for several years of an entry on the Ordnance Survey Map at the above map reference—" Urn with human bones found here "[1] and in the hedgerow 30 feet to the South West—" Stone." No sign of the latter now exists and the site had no surface indications of its existence. During March 1961 he noticed that the field had been ploughed, and on walking over it found a small scatter of cremated human bone on the same spot as the previous discovery. An evening and weekend investigation of the site was then carried out which extended over 3 months of that year, and was continued until no further prehistoric remains were discovered.

THE EXCAVATION

A grid of 10 foot squares was laid out, using the hedgerow on the south west as a baseline. Balks were left initially between squares, but these were found to have no

1 This find was prior to 1857, and the Ordnance Survey's informant was a local antiquary, Mr David Dobie, Kirkburn—but no details survive (per A. L. F. Rivet).

value for observing stratification owing to the thinness of the topsoil. The final area excavated was 70 feet by 50, and scattered over it were about 60 prehistoric pits. Some of these contained cremation burials, others inhumations, some had sherds of pottery and/or flints but several had merely a filling of carbonised wood and burnt and blackened stones.

The pottery[2] was found to fall into 4 chronological groups—Neolithic A, Beaker with associated coarse wares, Food Vessel and Cinerary Urn, and this arrangement will be followed in this Report. (See Plan facing page 56.)

Neolithic A. Undecorated sherds, generally of a hard dark brown paste, and in two of the cases where portions of rim were extant, with rims of a simple rolled over form, were recovered from two trenches and associated pits. The trenches, 12 feet and 6 feet long respectively, and 1 foot wide and 7 ins. deep, shallowing towards the ends, contained packing stones in a dark filling with an occasional stake, also a fragment or two of cremated bone. These trenches appear to have held simple screens or shelters.

Beaker. From 9 pits, rather scattered and tending to be largish (up to 4 ft. by 2 ft. 6 ins.) came a remarkable variety of Beaker pottery and with it a coarse ware not readily falling into any definite culture. The greatest number of sherds (about 2/3rds of the whole quantity) was of "B" Beaker, decorated with horizontal continuous cord impressions: other varieties were combed, incised, finger nail impressed, cordoned, grooved and plain ware. The Beaker pottery was generally accompanied by flints, and in one case by a flake of stone axe, retouched for use as a scraper.

Although, apart from minor exceptions attributable to worm action, these two cultures appear on the site unmixed, in one pit (No. 9), Neolithic ware was found with the coarse

2 A complete list of acknowledgements will be made in the full report but the writer should stress that even this brief summary would not have been possible without the detailed reports on the pottery and other finds by Mr R. B. K. Stevenson, Keeper, and Mr I. H. Longworth, Assistant Keeper of the National Museum of Antiquities of Scotland—nor would the dig itself have been possible without the co-operation of Mr James Jackson, proprietor of Kirkburn.

Plate 1.

Plate 2.

Plate 3.

Plate 4.

ware which elsewhere on the site was associated with Beaker sherds. This pit was, however, separated into two levels by a layer of stones, and it may be that it contained two levels of occupation and the apparent mixing was caused by the writer.

While there is no direct evidence that the pits hitherto referred to are funerary as opposed to domestic, it is necessary to describe at this stage a pit, which, although not assignable to any particular culture by pottery, was clearly funerary in origin. This pit (No. 24) was 9 feet long by 4 ft. 6 ins. wide by 20 ins. deep and was completely packed with stones throughout. In the centre was a black deposit about 18 ins. broad, long and deep. Scattered throughout the whole of the upper portion of the pit, including the black deposit, was a scatter of finely comminuted pottery and a few cremated bones, there being insufficient of the latter to constitute a complete cremation burial. The sherds were of a very coarse fabric with a buff coated reddish exterior decorated with coarse whipped-cord impressions and cannot be assigned to any particular culture with confidence. A group of 4 sherds with similar decoration found elsewhere on the site were, however, of beaker thickness.

Food Vessel. Lying to the South East of pit 24, were two cists closely similar in general style of construction—split local boulders laid with the flat side innermost—and size. The larger (Cist II.) had a capstone (roughly 2 ft. square)—(Plate 1). The cist was filled to within a few inches of the lower side of the capstone with fine loam in the upper part of which were three small fragments of cremated skull. The cist contained no apparent signs of an inhumation burial, but a sample of soil from the bottom disclosed a phosphate content twice that of the subsoil elsewhere on the site. Near the head of the cist, lying on its side, facing east, was a food vessel (Plate 2). This food vessel had 2 flat stones 6 ins. by 6 ins. lying against each of its two sides with a third stone on top. This cist was quite small, 2ft. 2 ins. long by 1 ft. 4 ins. at its greatest

width and only 18 ins. or so between the bottom (which was composed of natural subsoil) and the underside of the capstone (Plate 3).

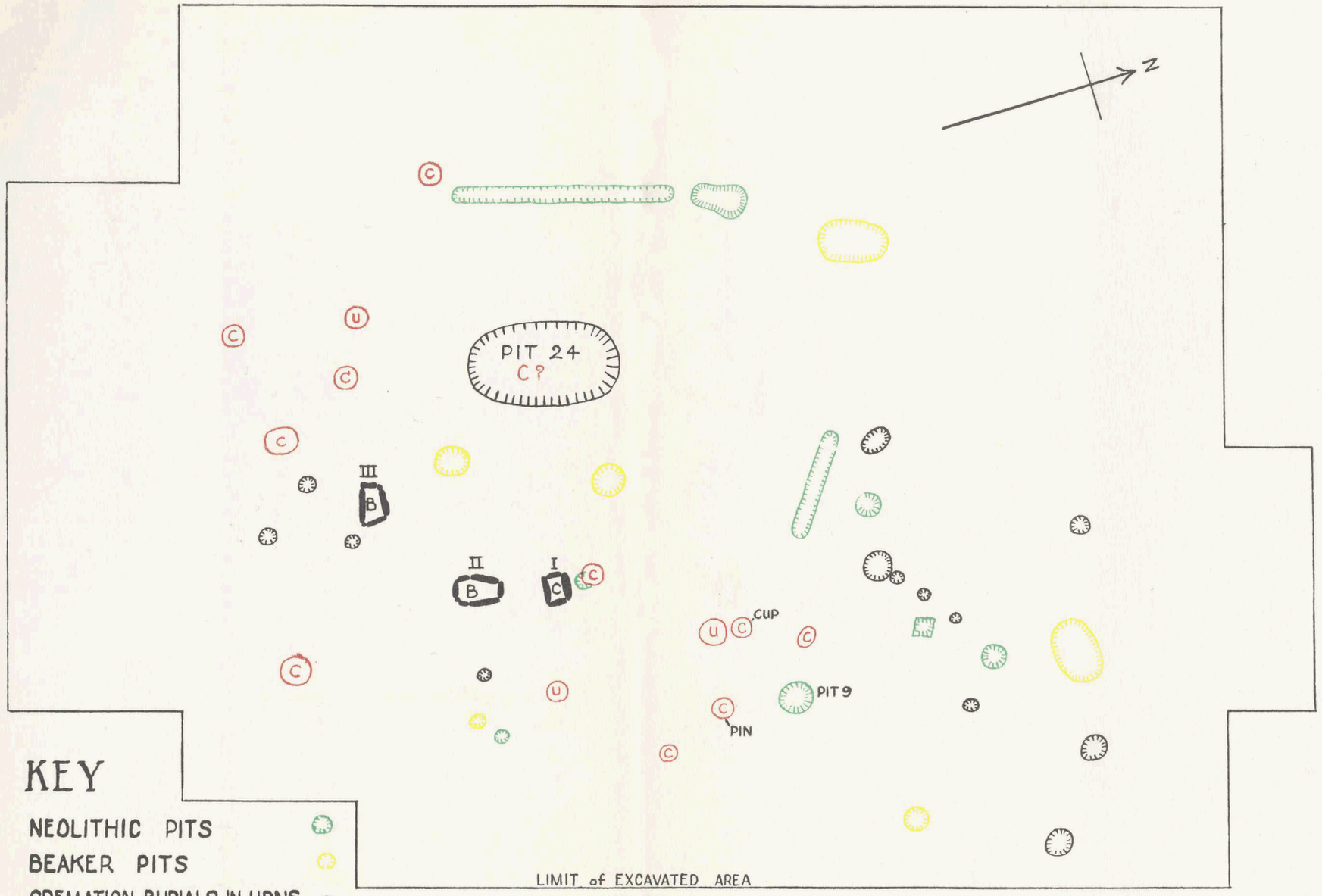
The food vessel itself is 6½ ins. high and 6½ ins. diam. It is double ridged and is decorated on the external surface and rim bevel with an incised herringbone pattern broken in the two grooves by single rows of diagonally jabbed impressions made with a blunt implement.

The smaller Cist (III.) had no capstone extant, and was filled with dark loam. Scattered through the filling were a few scraps of cremated bone and a fragment of burnt flint—further scraps of bone and flints were found in the interstices of the stones of which the cist was made. Two of the flints, both burnt, were perhaps leaf shaped points. The east end of this cist had collapsed inwards. The inside dimensions of the cist were approximately 15 ins. by 17 ins. A soil sample from the bottom revealed a phosphate content 3 times that of the soil elsewhere on the site.

Cremation Burials. Forming the south and south east portion of the circumference of a circle with centre at Pit 24 was found rather a straggling group of cremation burials. Since those dated by pottery were all of the Early to Middle Bronze Age they are dealt with here together, although there were indications that some might date to one of the earlier periods in the site's history. While the total number of burials originally in the cemetery was probably of a much larger number, 14 burials survived representing 16 persons. Of these persons one half were young adults and only 2 reached middle age. No burial was that of a child.

Ignoring the urn referred to on the O.S. Map, 3 burials, representing 4 persons, were in cinerary urns, shortly to be described, while one burial representing 2 persons was contained in a small cist. The remainder of the burials were in pits in the ground without sign of any textile or other container. One third of the burials were accompanied by grave goods—as will be noticed later. An occasional fragment of burnt flint also occurred. In some cases the bones had been carefully separated from any wood ash,

PLAN KIRKBURN 1961



KEY

- NEOLITHIC PITS
- BEAKER PITS
- CREMATION BURIALS IN URNS (u)
- do. do. (OTHER) (c)
- INHUMATION BURIALS B
- OTHER PITS

W.F.C

while in others the burials were accompanied by carbonised wood and burnt and blackened stones.

The Cist (I.) was a simple little stone lined box (8 ins. by 11 ins.) with no capstone. This as stated contained two burials, of one large and one small person, sex indeterminate.

The urns were of different types. Urn I. (fig. 1b), biconical and undecorated, was inverted over a cremation burial in a scooped area in the subsoil—it had been badly crushed, having been thrust sideways, spilling out bone, and a damaged tanged and rivetted bronze blade. The surviving length of the latter is 2.25 ins. and width .65 in.

Urn II., which was inverted over a double cremation burial in a pit in the subsoil, on the other hand is of the cordoned type. Decoration is confined externally to a rough twisted cord lattice/lozenge pattern enclosed by pairs of horizontal twisted cord lines set between the mouth and the first cordon. This burial was accompanied by a calcined bone pin of skewer type 4.9 ins. long and an unburnt bronze knife 3 ins. long and .95 in. broad with two slender rivet holes.

Urn III., which was inverted over a single burial (Plate 4), is collared. The collar and neck are decorated with horizontal rows of incised herringbone broken by panels of vertical incised herringbone. Accompanying the burial was a small unburnt plano convex knife of grey flint, pressure flaked. Its dimensions are 2 ins. long by .6 in. broad.

A larger bone pin 7.55 ins. long accompanied one of the cremation burials. The head has been squared and pierced. A fragment of cylindrical bead .3 in. diam. and .65 in. long also accompanied this burial.

With a further burial was found the remains of an undecorated Accessory Cup. Diam. of rim 2.3 ins., surviving height 1.5 ins.

Other Pits. About a dozen pits failed to yield any pottery so cannot be assigned to any particular culture. It will be observed from the plan that these tend to fall into two groups—4 lie on the south east portion of the site

among the Cremation burials, while the remainder are larger and are grouped among the beaker and neolithic pits with which they perhaps should be associated. Several contained flints and burnt and blackened stones, and in one case a small pitchstone flake with end utilised. Flints also occurred here and there in the topsoil, and several have since been picked up on the surface of the field in the neighbourhood of the site and also on nearby knolls. Several of the flints seem to have a microlithic element possibly indicating a much earlier occupation of the site.

DISCUSSION

This site is of interest not only for the range of cultures represented in the pottery but also for the question of the relationship if any of these cultures to each other.

Apart from the exceptions noted, the Neolithic and Beaker features appear unconnected—yet both, from the occasional scraps of cremated bone found in them and physical position on the site could well be related to Pit 24, which seems to be the Primary Burial or Ritual Pit which was to form the focus of the cemetery. While it is not proved from the pottery recovered that the latter is as early as the cultures named, there appears no valid reason why it should not fall into a Secondary Neolithic group, roughly contemporary with the Beaker.

The two inhumation burials seem to have been inserted in an existing cremation cemetery, for not only do they fall into place on the semi circle of cremation burials centred on Pit 24, but behind one of the stones of Cist II. was found a piece of cremated bone, in a position where it could hardly have arrived by worm action after the construction of the cist.

This carries the cremation cemetery back before "Food Vessel" times at least. The cremation burial with the Accessory Cup and that with the bone pin and bead could well be evidence, however, that the cemetery dates right back to the earliest cultures on the site, for not only is the former paralleled from an Aubrey Hole at Stone-

henge (phase I. there) but the latter could be quite at home in a Secondary Neolithic cremation cemetery.

Of the cinerary urns the earliest on typological grounds would appear to be the collared one, and it is interesting to note that it is linked with the food vessel not only in style of decoration but by its association with a plano convex knife—an artifact usually associated with the other culture. The cordoned urn seems to fall into the middle bronze age and possibly represents one of the last burials on the site. The remaining urn, the biconical one, is not readily assignable to any period, but seems to have a form developed from the bipartite Food Vessel. It is also of interest in that it appears to be related to one found in 1880 at Shuttlefield near Lockerbie and now in the National Museum of Antiquities (fig. 1a).

The site then appears to have been occupied as a cremation cemetery from the end of the Neolithic period to the Middle Bronze Age, continuously, apart from two occasions when the inhumation rite was employed. So far as absolute dates are concerned these might indicate an occupation of four or five hundred years down to 1400 B.C.

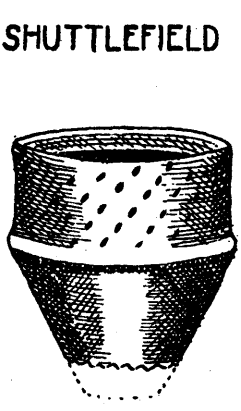


Fig. 1a.

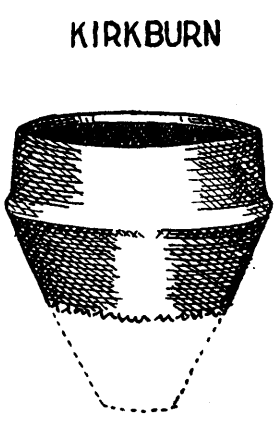


Fig. 1b.

ARTICLE 8

Some Preliminary Results of an Investigation of the Food of Fish in the Solway

By B. R. H. WILLIAMS, E. J. PERKINS, and A. HINDE,
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INTRODUCTION

The investigation described below forms part of a wider investigation of the fate of radionuclides in the Solway Firth and estuaries generally. The period covered is from June, 1962, to January, 1963, and the account given, while not comprehensive, is intended to show the course of the work to date.

A preliminary trawl survey of the Solway was carried out between 25th June and 12th July, 1962, to find the best fishing area. Eight areas were chosen as stations from which to obtain monthly fish samples.

The stations are shown in Fig. 1 (taken from Admiralty Chart No. 1826, Burrow Head to Liverpool, 1953).

STATIONS

1. Newbie.
2. Stenor Scar.
3. Lochar.
4. Silloth.
5. Borron Point.
6. Ellison Scar.
7. Port Ling.
8. Workington Bank.

Analysis of samples is carried out in the laboratory. After weighing and measuring the length of the fish (wing-span in the case of the Thornback Ray *Raia clavata*), the complete gut is carefully removed and the main food species of the gut contents identified. The fullness of the gut is indicated by a number 0-5. Although this is rather a subjective method, it has the advantage of being rapid.

Invertebrate fauna caught in the trawl is recorded and a type collection made. Investigations of the shores and middle banks are made using a 1/16th sq. m. quadrat box.

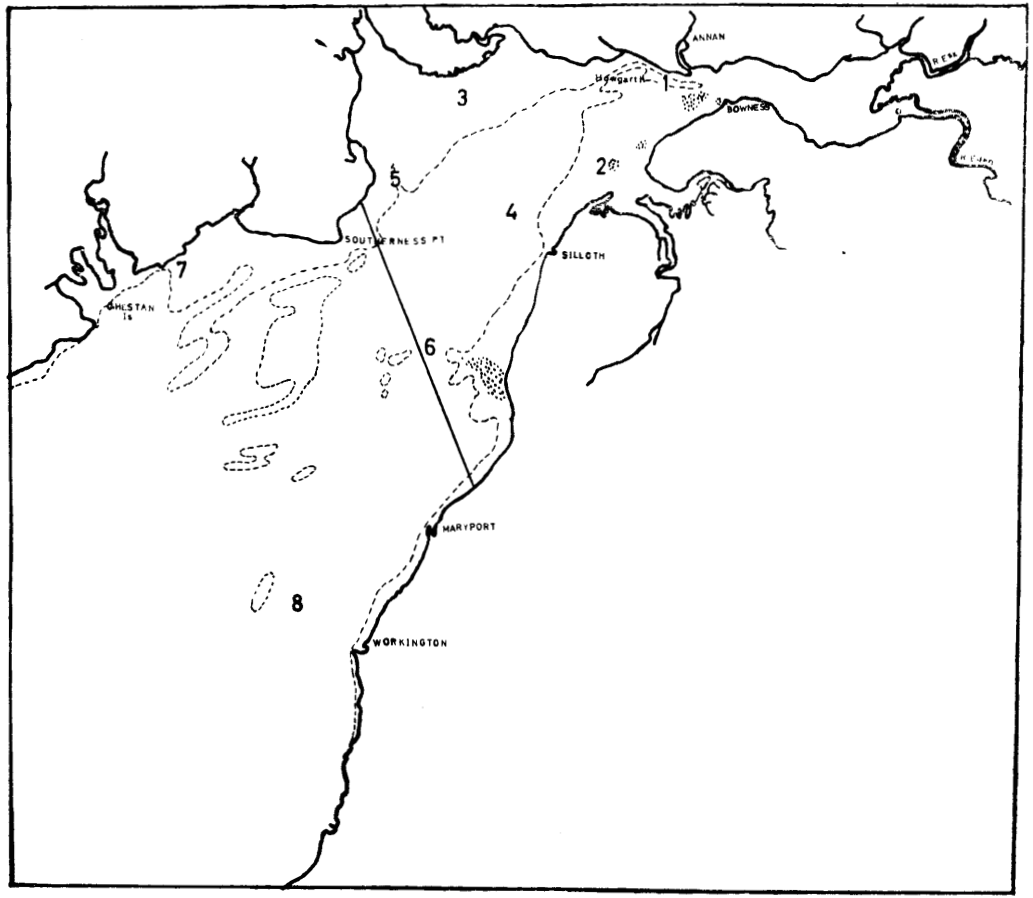

Fig. 1—Map of the Solway Firth showing the fishing stations.

DESCRIPTION OF THE AREA

At present the investigation covers an area of 240 square miles encompassing all the estuary inside a line from Hestan Island to Workington. The area from the top of the estuary to Southerness Point is characterised by shallow water and shifting middle banks. At low tide the water is restricted to channels between the banks and the long, flat, sandy shores. In some areas there are boulder scars, e.g., Stenor Scar and West Scar.

To the west the water deepens and at the extreme edge of the area is approximately five fathoms deep.

THE BOTTOM FAUNA

For the purposes of this paper the area has been divided in two, the line of demarcation being from Borron Point to Allonby Bay. This division into two areas is based on the distribution of bottom fauna, the position of the line indicating the salinity tolerance limits of the various species. The position of the line will vary according to conditions prevailing in the estuary at any one time.

INNER AREA

Infauna

The fauna is the same on all shores. The distribution of some of the more important species on a transect across Howgarth beach is seen in Fig. 2.

Arenicola marina is extremely abundant, extending in a broad band from just above low tide mark almost to the top of the shore. *Corophium volutator* and *Macoma balthica* are found in large numbers near the salt marsh, whilst *Nephthys sp. Hydrobia ulvæ* and *Cardium edule* have a wide distribution across the shore. The two peaks of the genus *Bathyporeia* are most probably due to the presence of two species, but this is not yet confirmed. The shores were investigated in September, and at that time large numbers of *Neomysis integer* were found just above low tide mark.

Other species occurring are *Lanice conchilega, Eteone longa, Tellina tenuis* and *Mya arenaria.*

There is a marked difference in the numbers of animals found on the shores and on the middle banks. In Table 1 a comparison has been made between the numbers of *Cardium edule* and *Macoma balthica* occurring at West Scar and Powbank. On the bank the fauna is relatively sparse.

Epifauna

The epifauna is represented mainly by *Crangon vulgaris* and *Carcinus mænas* which are generally distributed. *Portunus depurator, Hyas araneus* and *Asterias rubens* occur at Borron Point. *Ammodytes lanceolatus* and *Gobius minutus* are taken in most trawls, especially near scar grounds.

OUTER AREA

The animals constituting the bottom fauna of the outer area are listed below. The only beach investigated was at Port Ling.

Hydrozoa
Metridium senile

Nereis sp.
Nephthys sp.
Arenicola marina.
Pectinaria sp.
Sabellaria alveolata
Lanice conchilega
Owenia fusiformis
Aphrodite aculeata

Bathyporeia sp.
Corophium volutator
Neomysis integer
Leander serratus
Crangon vulgaris
Eupagurus bernhardus
Corystes cassivelaunus
Cancer pagurus
Portunus depurator
Carcinus mænas
Hyas araneus
Macropodia rostrata

Hydrobia ulvæ
Buccinum undatum
Nucula sp.
Modiolus modiolus
Mytilus edulis
Cyprina islandica
Cardium edule
Mactra corallina
Abra alba
Macoma balthica
Tellina tenuis
Donax vittatus
Pharus legumen
Mya arenaria

Astropecten irregularis
Solaster papposus
Asterias rubens
Ophiothrix fragilis
Ophiura texturata
Psammechinus miliaris
Echinocardium cordatum

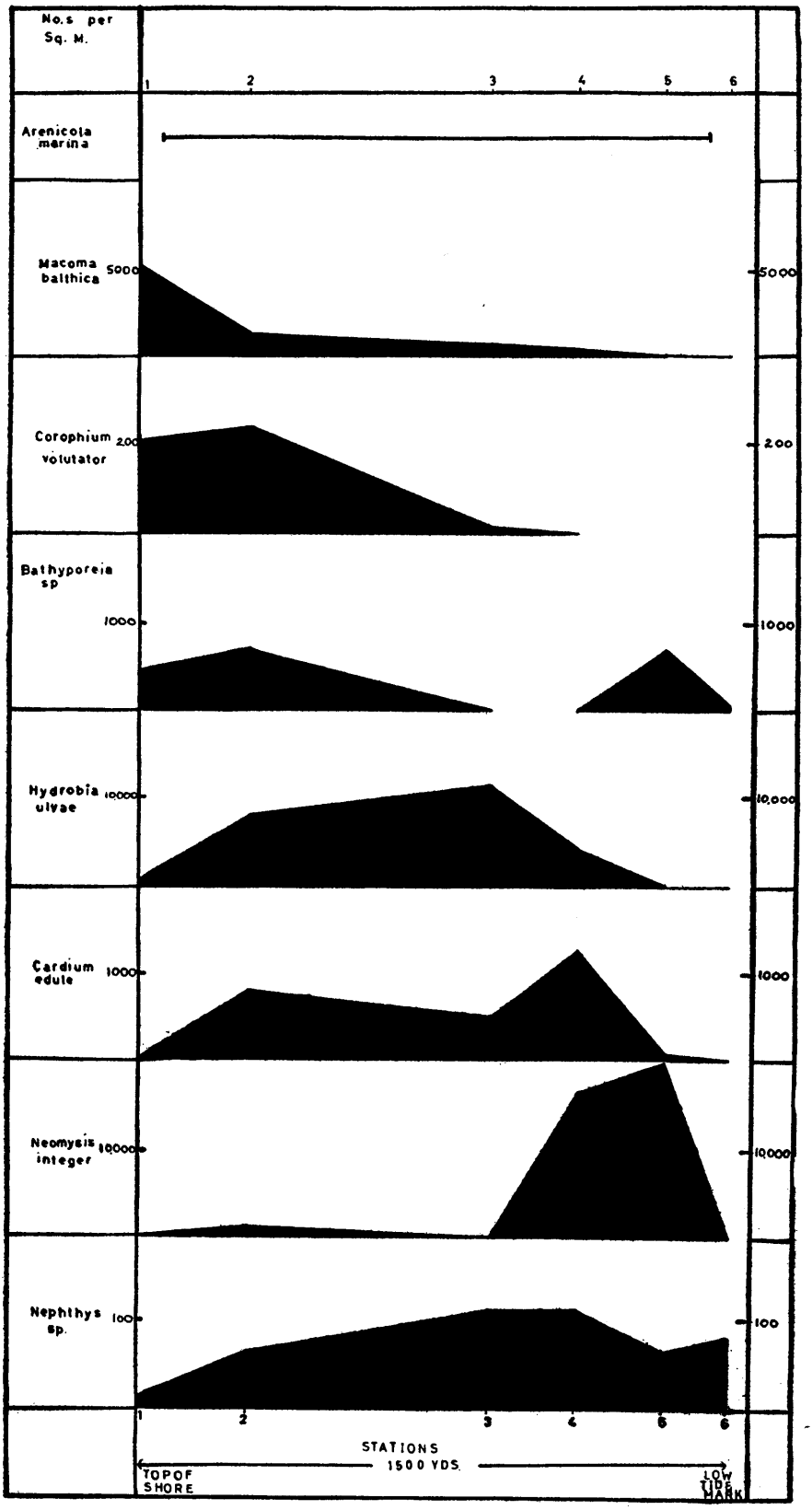

Fig. 2—The distribution of certain species on a transect across Howgarth beach. (The distribution of **Arenicola marina** is shown although no counts were made.)

THE FOOD OF THE FISH

The main investigations are being made on the food of the flounder (*Platichthys flesus*), plaice (*Pleuronectes platessa*), dab (*Limanda limanda*) and thornback ray (*Raia clavata*). Most of the fish examined are of a commercial size. Other fish taken are also analysed.

FLOUNDER (PLATICHTHYS FLESUS)

The flounder, or fluke, is extremely abundant at all stations except Workington Bank. The main organisms taken as food are shown in Table 2.

Inner Area

Here the main food is the lamellibranchs, *Mytilus edulis, Cardium edule* and *Macoma balthica.* Also important as food are crustacea especially *Corophium volutator* and *Crangon vulgaris,* the latter tending to be more important on the outer stations of the area. Polychætes and fish are of little importance as food.

Outer area

Few flounders are caught at Workington Bank but at Port Ling they are abundant and have a varied diet. Here *Cardium edule, Macoma balthica* and *Abra alba* are important as food. *Mactra corallina, Tellina tenuis* and *Donax vittatus* are eaten to a lesser extent. Other animals taken are *Pectinaria sp., Crangon vulgaris* and *Clupea harengus.*

SEASONAL VARIATIONS

In both areas there is a seasonal variation in the food and feeding habits of the flounder. The animal groups eaten by flounders caught at Newbie, Stenor, Silloth and Port Ling from June, 1962, to January, 1963, are shown in Fig. 3. The histograms were obtained by finding the percentage of the different food groups present in the fish examined. Due to the number of species involved the combined percentages often exceed 100%. In those cases a correction to 100% was made.

Flounders trawled at Newbie and Stenor during the summer months fed principally on lamellibranchs; crustacea were taken to a lesser extent. With the approach of winter there was a marked decrease in the number of fish feeding. In January no flounders were caught at Newbie. At Stenor, however, a few fish were feeding on small numbers of polychætes, chiefly *Arenicola marina.*

During the summer months the flounders at Silloth were feeding on crustacea and lamellibranchs. The number of fish feeding here also fell off with the onset of winter. In November, however, there was a change in diet, 20% of fish analysed had been eating small herring, *Clupea harengus.* In January all fish were empty.

During the summer months, at Port Ling, the majority of flounders were eating lamellibranchs. At the end of October, crustacea became the principal food, however, polychætes and fish were also taken. In January only one small flounder was caught, this was empty.

Although the histograms indicate the diet of the fish over a period, they are of little value unless the amount of food taken by the fish is known. In Fig. 4 a comparison is made between the amount of food in the stomachs of flounders caught at Stenor in August, 1962, and January, 1963. Although in January 34% of the fish examined had been feeding, only a few had full stomachs.

PLAICE (PLEURONECTES PLATESSA)

The plaice is less common than the flounder, few being caught in the inner area. The main food in both areas is shown in Table 3. In October-November there is a plaice fishery at Lochar, however, this has failed in 1961 and 1962.

Inner Area

The main food in this area is the lamellibranchs *Cardium edule* and *Macoma balthica.* Other animals taken are *Nephthys sp., Crangon vulgaris* and *Carcinus mœnas.*

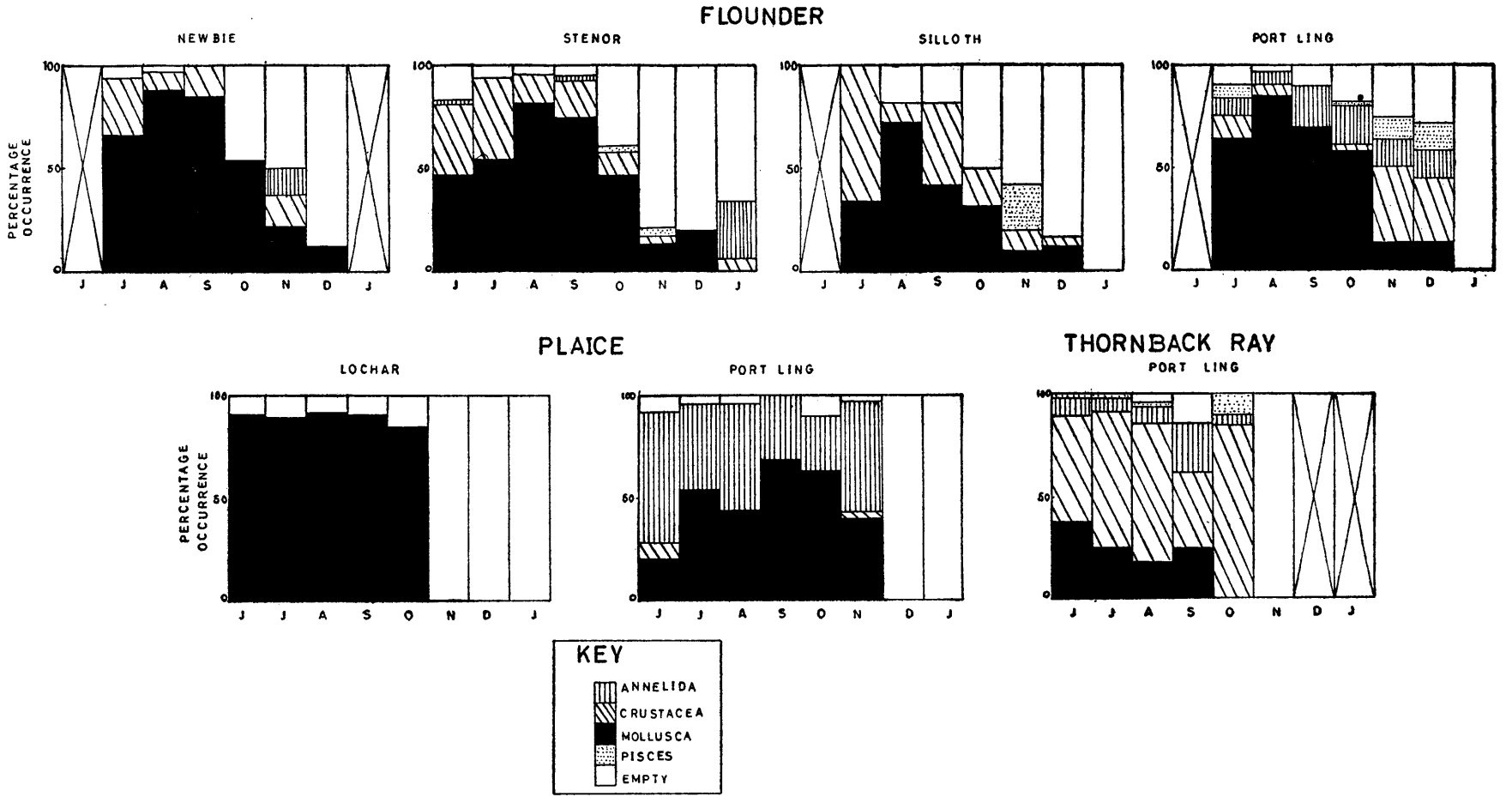

Fig. 3—The percentage occurring of Annelida, Crustacea, Mollusca and Pisces in the guts of the flounder, plaice and thornback ray from June, 1962, to January, 1963.

Outer Area

On the Port Ling Station, polychæte worms and lamellibranch constitute the main food of the plaice. Important species are *Nephthys sp., Arenicola marina, Pectinaria sp., Cardium edule, Abra alba* and *Donax vittatus* although many other animals of the bottom fauna community are eaten.

At Workington Bank, the plaice feed on *Nephthys sp., Nucula sp.* and *Donax vittatus.*

The main food of the plaice in both areas is shown in Table 3.

SEASONAL VARIATIONS

Fig. 3 shows the main food groups of the plaice trawled at Lochar and Port Ling from June, 1962, to January, 1963.

Up to the end of October, practically all fish at Lochar were feeding on lamellibranchs. After October all fish examined had empty stomachs.

Throughout the summer months most plaice caught at Port Ling were feeding on polychæte worms and lamellibranchs. In December and January all fish were empty.

DABS (LIMANDA LIMANDA)

The dab is abundant on the southern stations of the inner area and in the outer area.

Inner Area

The chief food of the dab in this area is the shrimp, *Crangon vulgaris.* Hydroids, *Carcinus mænas, Mytilus edulis* and *Macoma balthica* are also eaten.

Outer Area

Practically anything is taken as food. Crustacea, especially *Crangon vulgaris* and *Eupagurus bernhardus* are extremely important. Amounts of hydroid, land detritus and seaweeds have been found in the stomachs of fish caught at Workington Bank; Table 4 shows the food of the dab in both areas.

Although by no means complete, results to date indicate that the dab ceases to feed at the onset of winter.

THORNBACK RAY (RAIA CLAVATA)

The thornback ray is caught only in the outer area. There is a short fishing season in October at Workington Bank and Allonby Bay, but the appearance of the fish is sporadic. Small catches are taken at Port Ling during the summer months. The principal food of this fish can be seen in Table 5. Crustacea, especially *Crangon vulgaris* and *Eupagurus bernhardus* form the main diet. Other important animals are *Arenicola marina, Portunus depurator, Carcinus mœnas* and *Mactra corallina.*

The main food of the thornback ray at Port Ling from June, 1962, to January, 1963, is shown in Fig. 3. The majority of fish fed on crustacea from June to the end of October although some contained small amounts of polychætes and lamellibranchs. In November only two small skate were caught, both had been eating large numbers of shrimps. In December and January no fish were caught.

DISCUSSION

Results to date indicate that in the inner area at least the plaice and flounder feed high on the shores. The flounder consumes vast numbers of *Corophium volutator* found only near the top of the shore. Use of this fact will be made in 1963 when an investigation will be made by the " ebbing out " technique. The technique employs a long net which is stretched across a bank to catch fish as they drop into the channels with the ebbing water. This method was once used by the fishermen in the Solway and is most probably peculiar to the area.

By this means it is hoped to elucidate certain aspects of fish behaviour, viz., the time of feeding and also any preferences for feeding ground.

According to Steven (1930), the plaice and dab are visual feeders. The similarity between the food of the

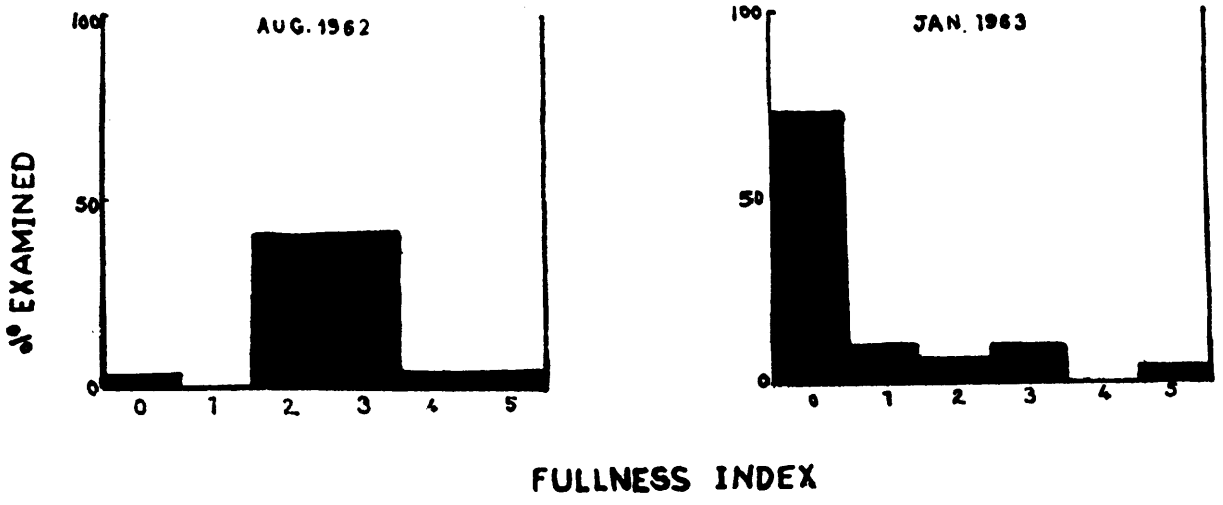

Fig. 4—Comparison of the amount of food in the guts of flounders from Stenor Scar in August, 1962, and January, 1963.

plaice and flounder suggests that the latter is also a visual feeder. In the Solway, it is apparent that these two fish compete for food. The dab, however, although taking a few species sought after by the plaice and flounder, is more active and takes large numbers of different organisms as food.

On the few results available it is evident that the three species of flatfish show a marked seasonal variation in their feeding habits, not only in the food eaten but also in the amount ingested. The greater variety in the diet of the fish from the outer area is obviously due to the larger number of bottom fauna species occurring there.

The fact that these fish tend to stop eating in winter is probably associated with the onset of gonad development and the sharp drop in the sea temperature.

The investigations will be continued in 1963 when it is hoped to obtain more precise information on the food of these fish in relation to the bottom deposits and the associated fauna.

ACKNOWLEDGEMENT

We are indebted to Mr T. Willacy for his helpful advice and co-operation in the conduct of the survey.

SUMMARY

1. An investigation of the food of fish is being carried out in the Solway Firth.
2. The area covered by the investigation has been divided into an inner and an outer area, based on the salinity tolerance of the bottom fauna species. An account is given of the bottom fauna in both areas.
3. The food of the flounder, plaice, dab and thornback ray in each area is described, the gut contents of the fish vary according to the area in which they feed. In both areas lamellibranchs and crustacea constitute the main food of these fish.

The three species of flat fish show a marked seasonal variation in the type and quantity of food ingested. With the onset of winter there is a marked decrease in feeding.

4. The relationship between the three flat fish in the Solway is discussed briefly. The flounder and plaice feed high on the shores and compete for food. The dab, however, has a wider food range.
5. The lines along which future work will proceed are described.
6. A list is given of the food of some other fish caught in the Solway Firth.

REFERENCE

Steven, G. A. (1930). Bottom fauna and the food of fishes. J. mar. biol. Ass. U.K. (NS) 16, 677-706.

APPENDIX I.

THE FOOD OF SOME OTHER FISH IN THE SOLWAY FIRTH

(The numbers indicate the station at which the fish were caught)

Eel (*Anguilla anguilla*)	1	Amphipoda
Whiting (*Gadus merlangus*)	1,8	Mysids, *Crangon vulgaris, Clupea harengus, Ammodytes lanceolatus*
Five bearded Rockling (*Motella mustella*)	1,4,5,6	*Crangon vulgaris, Ammodytes lanceolatus*
Common Goby (*Gobius minutus*)	3,4,5,6,7	Amphipoda, Mysids
Shortspined cottus (*Cottus scorpius*)	1,4,5,6	*Crangon vulgaris, Carcinus mænas, Agonus cataphractus, Limanda limanda*
Pogge (*Agonus cataphractus*)	1,3,4,5,6,7	*Idotea sp., Amphipoda, Mysids, Crangon vulgaris, Carcinus mænas*
Common Sea Snail (*Liparis liparis*)	4,6,7	Amphipoda, Mysids
Turbot (*Scophthalmus maximus*)	7	*Crangon vulgaris*
Brill (*Scophthalmus rhombus*)	7	*Ammodytes lanceolatus*
Sole (*Solea solea*)	7	*Arenicola marina, Pectinaria sp.*

TABLE 1

COMPARISON OF THE NUMBERS OF CARDIUM EDULE AND MACOMA BALTHICA OCCURRING ON A SHORE AND A MIDDLE BANK (The numbers of small individuals and adults have been added together).

	West Scar Shore		Powbank		
Station	Nos. per sq. m. *Cardium edule*	Nos. per sq. m. *Macoma balthica*	Nos. per sq. m. *Cardium edule*	Nos. per sq. m. *Macoma balthica*	Station
1 Low tide mark	0	368	16	128	1 Low tide mark
2	480	128	16	176	2
3	688	368	32	144	3
4	400	736	0	144	4
5	80	3056	0	112	5
6 Top of shore	48	1536	0	144	6 Top of Bank

TABLE 2

THE FOOD OF THE FLOUNDER (PLATICHTHYS FLESUS) ON THE TRAWLING STATIONS
(The important food species are indicated by two crosses).

	Newbie	Stenor	Lochar	Silloth	Borron	Ellison	Port Ling	Workington Bank
Species	1	2	3	4	5	6	7	8
Hydroid	x							
Nephthys sp.								
Arenicola marina	x	x			x		x	
Pectinaria sp.							xx	
Corophium volutator	x	xx	x	x	x		x	
Crangon vulgaris	xx	x	x	xx	xx	xx	xx	
Portunus depurator							x	
Carcinus mænas	x	x					x	
Hydrobia ulvæ		x						
Nucula sp.							x	
Mytilus edulis	xx	xx		xx		xx		x
Cardium edule	xx	xx	xx	x	x		xx	
Mactra corallina							x	
Abra alba							xx	
Macoma balthica	xx	xx	xx	xx	xx		xx	
Tellina tenuis	x						x	
Donax vittatus							x	
Clupea harengus				x	x	x	x	
Gobius minutus							x	
Pleuronectes platessa							x	
Total number of fish examined	287	358	170	153	77	106	169	6
Size Range Length in cms.	15-40	15-40	20-36	16-36	18-33	11-36	14-40	21-31

TABLE 3

THE FOOD OF THE PLAICE (**PLEURONECTES PLATESSA**) ON THE TRAWLING STATIONS
(The important food species are indicated by two crosses).

	Newbie	Stenor	Lochar	Silloth	Borron	Ellison	Port Ling	Workington Bank
Species	1	2	3	4	5	6	7	8
Nephthys sp.				x		x	xx	x
Arenicola marina							xx	
Pectinaria sp.							xx	
Lanice conchilega							x	
Crangon vulgaris		x		x			x	
Carcinus mænas		x				x	x	
Hydrobia ulvæ						x		
Nucula sp.							x	xx
Mytilus edulis	x	x		x		x		
Cardium edule	x	xx	xx		xx	x	xx	
Mactra corallina							x	
Abra alba							xx	
Macoma balthica		x	xx	x	xx	x	x	
Tellina tenuis							x	
Donax vittatus							xx	xx
Pharus legumen							x	
Clupea harengus				x				
Ammodytes lanceolatus				x				
Total number of fish examined	8	53	41	54	52	58	159	87
Size Range Length in cms.	15-26	14-45	13-36	16-37	18-48	13-31	11-49	18-32

TABLE 4

THE FOOD OF THE DAB (LIMANDA LIMANDA) ON THE TRAWLING STATIONS
(The important food species are indicated by two crosses).

	Newbie	Stenor	Lochar	Silloth	Borron	Ellison	Port Ling	Workington Bank
Species	1	2	3	4	5	6	7	8
Hydroid		x	x	x	x		x	xx
Nereis sp.							x	
Nephthys sp.						x	x	
Arenicola marina							x	
Pectinaria sp.							x	
Lanice conchilega				x				
Crangon vulgaris		x	x	xx	x	xx	xx	xx
Eupagurus bernhardus							x	xx
Corystes cassivelaunus								x
Portunus depurator							x	
Carcinus mænas	x	x	x	x	x	x		
Mytilus edulis	x	x		x		x		
Cardium edule			x				x	
Mactra corallina								x
Macoma balthica		x	x		x			
Donax vittatus								x
Pharus legumen							x	x
Echinocardium cordatum								x
Clupea harengus			x	x		x		x
Ammodytes lanceolatus				x		x		x
Gobius minutus			x	x				
Sea weed						x		x
Land detritus					x	x		x
Total number of fish examined	3	20	30	69	22	60	33	86
Size Range Length in cms.	21-23	18-31	19-31	13-29	15-23	16-32	16-32	12-30

TABLE 5

THE FOOD OF THE THORNBACK RAY (**RAIA CLAVATA**) AT PORT LING AND WORKINGTON BANK

(The important food species are indicated by two crosses).

Species	Port Ling	Workington Bank
	7	8
Nephthys sp.	x	
Arenicola marina	x	
Pectinaria sp.	x	
Idotea sp.	x	
Crangon vulgaris	xx	xx
Eupagurus bernhardus	xx	
Portunus depurator	xx	x
Carcinus mænas	xx	x
Mactra corallina	xx	
Tellina tenuis	x	
Donax vittatus	x	
Gadus merlangus		x
Ammodytes lanceolatus		x
Total number of fish examined	178	14
Size Range Wingspan in cms.	24-54	32-68

ARTICLE 9

A Preliminary List of the Marine Fauna and Flora of the Solway Firth, with some Notes on the distribution of Elminius Modestus Darwin

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INTRODUCTION

A study of the Solway Firth, with respect to its potential for the receipt of radioactive effluents, is currently in progress. The proper appreciation of the disposal of a radioactive effluent and its possible effects on the animals of the food chain and on Man, requires an adequate knowledge of the biota, its distribution and the relative proportions of the constituent species. In the case of the Solway Firth, however, such information was generally lacking and it was an essential preliminary to remedy this deficiency.

The list of species recorded below, is not exhaustive, but, is of the more obvious and common species recorded to the end of 1962. For the sake of brevity, the Solway Firth has been divided into a number of areas (see Fig. 1), which have an essentially biological basis; species are, therefore, assigned to an area by number rather than a specific geographical location.

It is not intended, at this stage, to enlarge on the significance of these areas, except to say that the line where areas 7, 8, 9 and 10, 11, 12 juxtapose, probably represents a boundary between the inner and outer Solway Firth. Due to decreasing salinities, the number of species in the fauna to the east of this line is small; while *Cardium edule* L. shows the well-known decrease in size with proximity to the head of the estuary. To the west of this line the number of species increases and more typically marine forms dominate.

Since this is a preliminary list, no account is taken of other work published for the area, although such will be included when the final list is prepared. The nomenclature is that of the Plymouth Marine Fauna, Third Edition, 1957.

Elminius modestus Darwin. The status of this Australasian barnacle was reviewed by Crisp (1958) who stated that subsequent to a separate colonisation of Morecambe Bay, and a slow marginal dispersal along the Cumberland coast, the organism progressed rapidly in the Solway Firth.

Barnes and Barnes (1961) reviewed the status of this barnacle in south-west Scotland and concluded that in 1959, it was more abundant than in the period 1950-55 when Crisp made his surveys.

Surveys carried out from Chapelcross since 1961 have by reason of the need to know the more abundant and significant members of the biota, provided much information on the distribution of *Elminius modestus* (see Fig. 2). Since the survey has been carried out with rather different aims to those of Crisp, and Barnes and Barnes, and the mode of assessment has been different, viz., Absent, Present, Common or Abundant, the present survey cannot be compared directly with the earlier ones. However, it does show the extent to which the barnacle has now colonised the Solway and its side estuaries. Its peak of abundance appears to be in area 15, while its hold seems weakest in the R. Cree estuary. In some places it is now so abundant as to be considered a pest. During 1962, for example, Mr J. Butler of Kippford (private communication) stated that he had three times to scrape and coat his boat with antifouling paint, each time achieving only limited success. As in the R. Blackwater estuary, Essex, heaviest spatfalls accompanied periods of marked rainfall. In the inner Solway Firth, settlement is so heavy that nets and ropes of the stake nets require a special cleaning at the end of the season.

Salt marshes in varying stages of development occur widely in the Solway Firth area. On the north shore, at least, most rapid development is taking place in the Rough Firth/Urr Water and Auchencairn Bay region. The marshes are of the typically west coast type, the genera *Puccinellia, Armeria, Statice* and *Juncus* occur. *Spartina townsendii* is increasing rapidly in the Rough Firth/Urr Water and Auchencairn Bay region; in the Urr it has colonised at least as far upstream as Craigbrex.

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Barnes, H., and Barnes, M. 1961. Recent Spread and Present Distribution of the Barnacle **Elminius modestus** Darwin in South-West Scotland. Glasgow Naturalist **28**(3), 121-129.

FAUNA

Phylum Porifera

Halichondria Panicea (Pallas)
Area 9.

Phylum Coelenterata
Class Hydrozoa
Order Hydroida

Hydractinia Echinata (Fleming)
Area 10, 11, 15, 16, 19.
Dynamena Pumila (L)
Area (2), (3), (7), 11, 15, (18).

Class Scyphomedusæ
Order Semæostomæ

Chrysaora Hysoscella (L)
Area 13, 15, 18.
Aurelia Aurita (L)
Area 4, 7, 10, 11, 13, 15, 16, 18, 24.

Order Rhizostomæ

Rhizostoma Octopus (L)
Area 7, 10, 13, 14, 15, 18, 20, 24.

Class Anthozoa
Sub-Class Octocorallia (Alcyonaria)

Order Alcyonacea

Alcyonium Digitatum (L)
Area 11, 15, 16.

Sub-Class Hexacorallia
Order Actiniaria

Actinia Equina L.
Area 15, 18, 21, 22, 24, 27.
Tealia Felina (L)
Area 3, 10, 16.
Metridium Senile (L)
Area 16.

Phylum Ctenophora
Class Tentaculata

Pleurobrachia Pileus (O. F. Müller)
Area 1, 2, 3, 4, 7, 9, 10, 13, 14, 15, 24.

Phylum Annelida
Class Polychæta

Aphrodite Aculeata L.
Area 11, 15, 16, 19.
Phyllodoce sp.
Area 18.
Eteone Longa (Fabricius)
Area 3, 4, 7, 15.
Nereis Fucata (Savigny)
Area 7.
Nephthys sp.
Area 3, 4, 7, 8, 15, 18, 21, 22, 27.
Scoloplos Armiger (O. F. Müller)
Area 14, 18.
Polydora sp.
Area 22.
Arenicola Marina (L)
Area 3, 4, 10, 14, 21, 24.
Arenicola sp.
Area 9, 15, 22.
Owenia Fusiformis Delle Chiaje

Area 15.
Sabellaria sp.
Area 10, 15, 24, 25.
Lanice Conchilega (Pallas)
Area 3, 10, 15, 16, 18, 21, 22, 24, 25, 27.
Pomatoceros Triqueter (L)
Area 10, 24, 25, 27.
Spirorbis Borealis Daudin
Area 22.

Phylum Sipunculoidea

Golfingia Elongata (Keferstein)
Area 3.

Phylum Arthropoda
Sub-Phylum Crustacea
Class Copepoda
Order Eucopepoda
Sub-order Caligoida

Caligus sp.
Area 3, 4, 7, 9, 10, 15.

Sub-order Lernæoida

Lernæenicus Sprattæ (Sowerby)
Area 7.

Class Cirripedia
Order Thoracia

Chthamalus Stellatus (Poli)
Area 10, 15, 19.
Balanus Crenatus Bruguière
Area 1, 2, 3, 27.
Balanus Balanoides (L)
Area 2, 3, 9, 10, 13, 14, 15, 18, 20, 21, 22, 23, 24, 25, 27.

Order Rhizocephala

Sacculina Carcini Thompson
Area 15.

Class Malacostraca
Order Isopoda

Idotea Baltica (Pallas)
Area 10, 15.
Idotea Linearis (L)

Area 10.
Ligia Oceanica (L)
Area 22, 25.

Order Amphipoda

Bathyporeia Pelagica (Bate)
Area 7.
Bathyporeia sp.
Area 3, 4, 8, 15.
Haustorius Arenarius (Slabber)
Area 3, 4.
Corophium Volutator (Pallas)
Area 1, 2, 3, 4, 5, 7, 9, 10, 13, 14, 18, 20, 21, 23, 24.
Hyperia Galba (Montagu)
Area 10, 18.

Order Schizopoda (=Mysidacea)

Schistomysis sp.
Area 15.
Neomysis Integer (Leach)
Area 2, 3.

Order Decapoda

Sub-order Natantia

Palæmon (Leander) Serratus (Pennant)
Area 10, 15.
Palæmon Elegans Rathke *(Leander Squilla)*
Area 22, 27.
Palæmonetes Varians (Leach)
Area 10.
Crangon Vulgaris Fabricius
Area 1, 2, 3, 4, 7, 8, 9, 10, 11, 12, 15, 16, 18.

Sub-order Reptantia

Tribe Astacura

Homarus Vulgaris Milne Edwards
Area 15, 19, 25.

Tribe Anomura

Porcellana Platycheles (Pennant)
Area 27.

Tribe Paguridæ

Eupagurus Bernhardus (L)

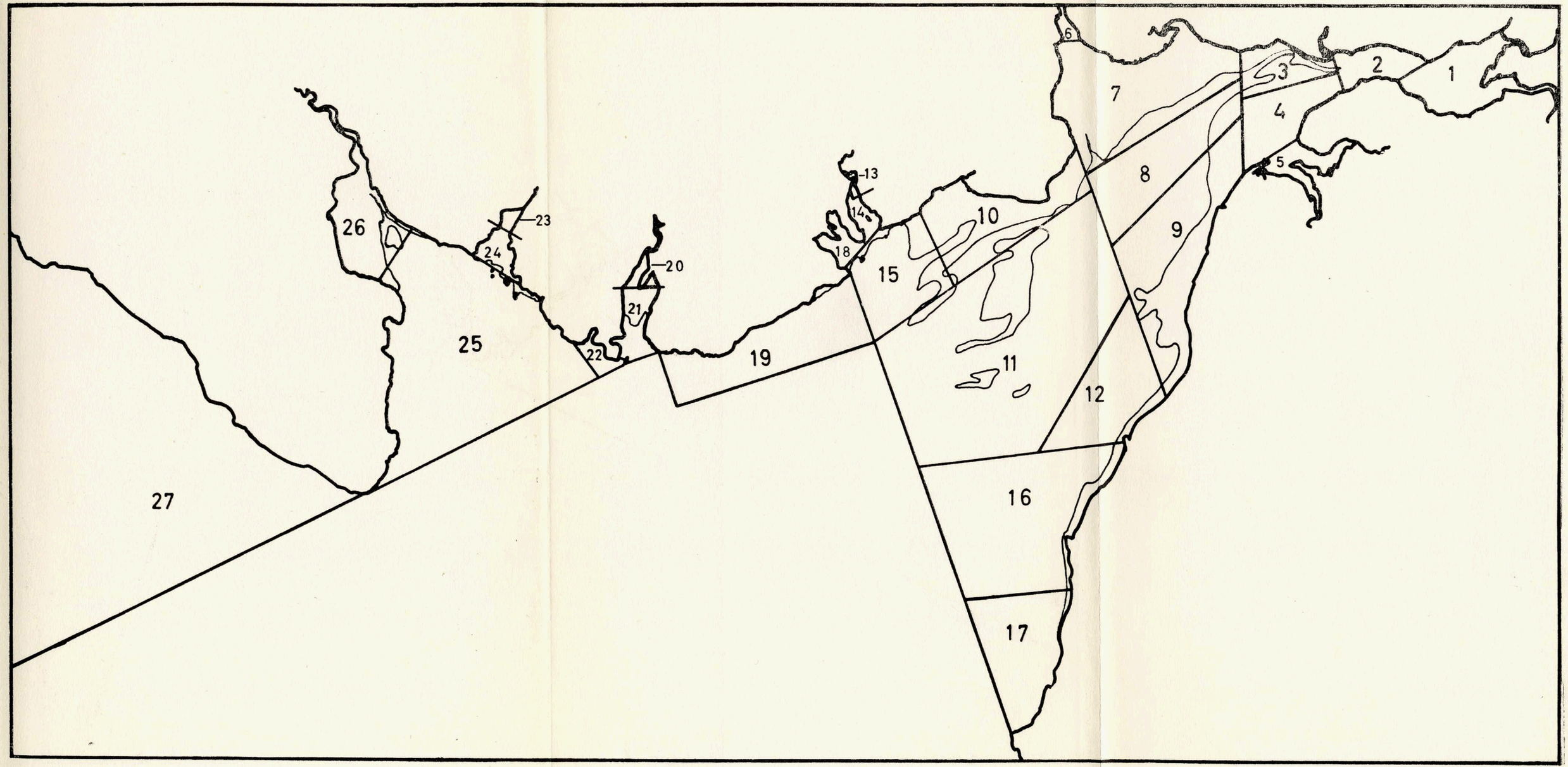


Fig. 1—The areas of the Solway Firth.

Area 3, 7, 10, 11, 15, 16, 19, 25.

Tribe Brachyura

Corystes Cassivelaunus (Pennant)
Area 11, 16, 19.
Cancer Pagurus L.
Area 15, 16, 19, 25.
Portunus Depurator (L)
Area 9, 10, 15.
Carcinus Mœnas (L)
Area 1, 3, 4, 7, 9, 10, 13, 14, 15, 18, 20, 21, 22, 24, 25, 27.
Pinnotheres Pisum (Pennant)
Area 15.
Hyas Araneus (L)
Area 10, 15.
Macropodia Rostrata (L)
Area 10, 11, 15.

Sub-Phylum Insecta
Class Apterygota
Order Collembola

Anurida Maritima Laboulbène
Area 22.

Phylum Mollusca
Class Gastropoda
Sub-Class Prosobranchia
Order Archæogastropoda

Patella Vulgata L.
Area 14, 15, 18, 19, 22, 24, 25, 27.
Gibbula Umbilicalis (da Costa)
Area (22), 27.
Gibbula sp.
Area 25.
Littorina Littoralis (L)
Area 10, 14, 18, 21, 22.
Littorina Littorea (L)
Area 3, 10, 13, 14, 15, 18, 21, 22, 24, 25, 27.
Littorina Saxatilis (Olivi)
Area 3, 7, 9, 10, 13, 14, 15, 18, 19, 21, 22, 24, 27.
Hydrobia Ulvæ (Pennant)

Area 2, 3, 4, 5, 7, 13, 14, 18, 24.
Turritella Communis Risso
Area 16, (18), (19), (22), (24), (25).
Aporrhais Pes-Pelecani (L)
Area 21, 25.
Natica Catena (da Costa)
Area 15, (16), (25).
Nucella Lapillus (L)
Area 10, 14, 15, 18, 22, 24, 27.
Buccinum Undatum L.
Area 15, (22), (24), (25), (27).

Class Lamellibranchia (=Bivalvia)

Order Protobranchia

Nucula Sulcata Bronn
Area 15.

Order Taxodonta

Glycymeris Glycymeris (L)
Area (27).

Order Dysodonta

Modiolus Modiolus (L)
Area (7), 11.
Mytilus Edulis L.
Area 2, 3, 4, 8, 9, 10, 13, 14, 15, 18, (20), 21, 22, 24, 25, 27.

Order Ostreiformes

Ostrea Edulis L.
Area (9), (10), 15, (16), (18), (22), (24), (25), (27).
Freshly dead valves of large old oyster trawled in Area 11.

Order Pseudolamellibranchia

Anomia Ephippium L.
Area (22).
Chlamys Varia (L)
Area (25).
Chlamys Distorta (da Costa)
Area (24).

Order Eulamellibranchia

Cyprina Islandica (L)
Area 16, (25).
Cardium Edule L.

Area 3, 4, 7, 8, 10, 14, 15, 18, (20), 21, 24, 27.
Cardium Echinatum L.
Area (16), (24).
Cardium Aculeatum L.
Area (27).
Dosinia Exoleta (L)
Area (27).
Venus (Clausinella) Striatula da Costa
Area (21), (25).
Venerupis Pullastra (Montagu).
Area (22), (27).
Spisula Solida (L)
Area (25), (27).
Mactra Corallina (L)
Area 10, 11, 15, 16, (24).
Gari Fervensis (Gmelin).
Area (27).
Abra Alba (W. Wood)
Area 15, 16.
Scrobicularia Plana (da Costa)
Area 1, 2, 3, 4, 7, 13, 14, 18, 20, 21, 24.
Macoma Balthica (L)
Area 1, 2, 3, 4, 5, 7, 8, 9, 10, 13, 14, 18, 20, (27).
Tellina Tenuis da Costa
Area 3, 7, 10, 15, 22, 27.
Donax Vittatus (da Costa)
Area 10, 15, (25), (27).
Pharus Legumen (L)
Area (10), 15, (24), (25).
Ensis Arcuatus (Jeffreys)
Area (24), (27).
Ensis Siliqua (L)
Area (24), (25), (27).
Mya Arenaria L.
Area 1, 2, 3, 7, 13, 14, 15, 18, 21, (27).
Mya Truncata L.
Area (15).
Barnea Candida (L)

Area (15).

Class Cephalopoda
Order Decacera

Sepia Officinalis (L)
Area (4), (24).
Sepiola Atlantica d'Orbigny
Area 7, 10, 15.

Phylum Polyzoa
Order Gymnolæmata
Sub-Order Cheilostoma

Membranipora Membranacea (L)
Area (2), 25.
Many Woodhead Sea-bed Drifters released since 28/8/62 have been returned with heavy growths of this species.
Flustra Foliacea (L)
Area 9, 10, (18).

Sub-Order Ctenostomata

Alcyonidium sp.
Area 10, 15.

Phylum Echinodermata
Class Asteroidea
Order Phanerozonia

Astropecten Irregularis (Pennant)
Area 16.

Order Spinulosa

Solaster (Crossaster) Papposus (L)
Area 16.

Order Forcipulata

Asterias Rubens L.
Area 3, 10, 11, 15, 16, 19.

Class Ophiuroidea
Order Ophiuræ

Ophiura Texturata Lamarck
Area 15.

Class Echinoidea
Order Diadematoidea

Psammechinus Miliaris (Gmelin)

Area 11.

Order Spatangoidea

Echinocardium Cordatum (Pennant)

Area (4), 11, (13), 15, 16.

Phylum Chordata

Sub-Phylum Tunicata

Class Ascidiacea

Order Pleurogonia

Sub-Order Stolidobranchiata

Dendrodoa Grossularia (Van Beneden)

Area 11.

Sub-Phylum Vertebrata

Order Petromyzonida

Petromyzon sp.

Area 3.

Class Selachii

Order Hypotremata

Raia Clavata L.

Area 11, 15, 16, 19.

Class Pisces

Sub-Class Neopterygii

Order Isospondyli

Clupea Harengus L.

Area 3, 4, 7, 9, 10, 15, 16.

During 1962, herring were more plentiful than at any time since 1941 (T. Willacy, private communication). Numbers were again abundant at the former fishing ground off Southerness Point.

Order Apodes

Anguilla Anguilla (L)

Area 4, 7, 10.

Conger Conger (L)

Area 3.

Order Solenichthyes

Nerophis Lumbriciformis Pennant

Area 15.

Syngnathus Acus L.

Area 15.

Order Anacanthini

Gadus Callarias L.
Area 4, 9, 15.
Gadus Merlangus L.
Area 11, 15, 16.
Onos Mustelus (L)
Area 15.

Order Percomorphi

Ammodytes Lanceolatus Lesauvage
Area 4, 9, 10, 15.
Trachinus Draco L.
Area 11.
Trachinus Vipera Cuvier and Valenciennes
Area 4, 7, 10, 15.
Callionymus Lyra L.
Area 15, 16.
Pholis Gunnellus (L)
Area 15.
Mugil sp.
Area 7.

Order Scleroparei

Trigla Cuculus L.
Area 10, 11, 15, 16.
Cottus Scorpius L.
Area 4, 5, 15.
Agonus Cataphractus L.
Area 3, 4, 7, 10, 15.
Cyclopterus Lumpus L.
Area 4, 9, 15.

Order Heterosomata

Scophthalmus Maximus (L)
Area 10, 15.
Scophthalmus Rhombus (L)
Area 11, 16.
Limanda Limanda (L)
Area 4, 7, 9, 10, 11, 15, 16, 19.
Pleuronectes Platessa L.

Area 3, 4, 7, 9, 10, 11, 15, 16.
Glyptocephalus Cynoglossus (L)
Area 11, 16.
Platichthys Flesus (L)
Area 2, 3, 4, 5, 7, 10, 11, 15.
Solea Solea (L)
Area 4, 10, 11, 15.

Flora

Algæ

Class Bacillariophyceæ

Order Bacillariales

Sub-Order Discineæ

Coscinodiscus Lineatus Ehr.
Area 14, 15.
Coscinodiscus Radiatus Ehr.
Area 14.
Actinoptychus Senarius Ehr.
Area 13, 14, 15.

Sub-Order Araphidineæ

Rhaphoneis Amphiceros Ehr.
Area 15.

Class Chlorophyceæ

Order Ulvales

Enteromorpha spp.
Area 1, 2, 3, 5, 6, 7, 9, 10, 13, 14, 15, 18, 20, 21, 22, 25, 27.
Ulva Lactuca L.
Area 1, 2, 3, 5, 9, 10, 15, 18, 21, 22, 23, 27.

Order Siphonocladiales

Cladophora Rupestris Kütz
Area 3, 14, 15, 22, 24, 25.

Class Phæophyceæ

Order Laminariales

Chorda Filum Lamour
Area 22.

Order Fucales

Fucus Ceranoides L.
Area 1, 3, 13, 19, 20, 23, 26, 27.
Fucus Spiralis L.

Area 1, 2, 3, 5, 9, 10, 13, 14, 15, 18, 19, 20, 21, 22, 24, 25, 26, 27.

Fucus Vesiculosus L.

Area 1, 2, 3, 9, 10, 13, 14, 15, 18, 19, 20, 21, 22, 24, 26, 27.

Fucus Serratus L.

Area 10, 15, 18, 19, 24, 25.

Ascophyllum Nodosum Le Jol

Area 2, 3, 10, 13, 14, 15, 18, 19, 20, 21, 22, 24, 25, 26, 27.

Pelvetia Canaliculata Dcne. and Thur.

Area 2, 3, 10, 13, 14, 15, 18, 19, 20, 21, 22, 24, 25, 26, 27.

Class Rhodophyceæ

Sub-Class Protoflorideæ

Order Bangiales

Porphyra sp.

Area 9, 10, 15, 18, 22, 27.

Sub-Class Florideæ

Order Cryptonemiales

Lithophyllum Incrustans Foslie

Area 15, 22, 25.

Corallina Officinalis L.

Area 15, 22, 25.

N.B.: Area number bracketed indicates finding of vacated valves or dead ferns.

Fig. 2—The distribution of **Elminius modestus** Darwin in the Solway Firth

○ None present; ⊖ Substratum unsuitable for settlement; ⊙ Present; ◒ Common; ● Abundant.

ARTICLE 10

Dumfries and Galloway in the Dark Ages: Some Problems

By A. E. TRUCKELL, M.A., F.S.A.Scot., F.M.A.

The present century has seen a great increase in our knowledge of the post-Roman and pre-Norman period in our three counties—Barbour at Castle Ha'en, the finds from which suggested an 8th-9th century occupation of this originally Iron Age site:[1] Curle at the 5th-8th century trading post of Mote of Mark at the mouth of the Urr:[2] Collingwood's massive work on the crosses—nearly a hundred of them for our area for this period[3]—as also Dr Rosemary Cramp[4]—and Ralegh Radford's work at Whithorn, Chapel Finnian, Castle Loch, Mochrum, Cruggleton and Hoddam,[5] plus Clarke's work at the late native site, based so far as shape goes on a Roman fort, at Watch Knowe, Craigmuie[6] and the writer's section at the exactly similar site on the Crichope Linn: this Society's work at the 4th-5th century native site at Blacketlees, Annan,[7] Mr Brian Blake's work at Carruthers fort, Mr Charles Thomas at Trusty's Hill, Ardwall Island, and Isle of Whithorn,[8] and General Scott-Elliot's work at the great cemetery of oriented long cists within the Iron Age fort at Camp Hill, Trohoughton. A blank in the finds has recently been filled in by the discovery in 1962 in the Stewartry Museum of part of the arm of a classic Northumbrian cross, datable to the end of the 8th or beginning of the 9th century, and very probably from St. Cuthbert's church there. The line of 10th-11th century crosses along the old bridle track past

1 P.S.A.S. XLI., 68.
2 P.S.A.S. XLVIII., 125.
3 T.D.G.S. V., 34; X., 205; XII., 46.
4 T.D.G.S. XXXVIII., 9.
5 T.D.G.S. XXVII., 85; XXVII., 193; XXVIII., 28; XXVIII., 41; XXVIII., 158; XXXI., 174; XXXIII., 179; XXXIV., 110; XXIV., 131.
6 T.D.G.S. XXIX., 132.
7 T.D.G.S. XXXV., 138.
8 T.D.G.S. XXXVIII., 58 and 71.

Carsphairn[9] has been shown to have parallels in Wigtownshire (the Glaik and Larg Liddesdale crosses)[10] and in the S.W. Stewartry (Auchenlarie)[11] and it may be that the cross now in the garden of Broughton House, Kirkcudbright, is from a similar group. Dr Reid has pointed out the existence of a pre-Norman monastery at Applegarth.[12] The finding of a 9th-10th century Viking domestic axe and a 12th-century horseshoe on land with a long agricultural history on Capel Rig in the foothills of Queensberry points to a fairly intensive settlement there in late pre-Norman times. The discovery of yet another motte-type earthwork in Dumfries, at the Western end of the ford which preceded the Old Bridge, bringing the total in the town and its immediate environs to six, is one more testimony to the friction between Galloway and the Scottish Crown near the end of the 12th century—presumably under the conservative Gilbert.

The Talnotrie hoard, found in 1912[13] and containing Anglo-Saxon coins and ornaments and a Cufic coin, deposited about 910, has been added to by the identification of various of Mann's late Northumbrian, Dublin and York coins as coming from Whithorn and the Luce Sands, and confirmation of the latter has come in the past year with Mr Cormack's discovery in the Luce Sands, some distance apart, of two coins of Eanred (806-circa 841). This evidence is valuable as, apart from the few indubitably Northumbrian crosses[14] and literary sources we have so far had little evidence of the presence of the Northumbrians in our area during the two centuries in which it was part of their kingdom. Where were their forts? The difficulty has been, of course, that no clearly Northumbrian forts were known even in their homeland, or if known had been too much altered and built over. Mr Hope Taylor's work at Yeavering will, when published, give us a clearer guide on this

9 R.C.A.M. Kdbt., Nos. 98, 99, 100, 101.
10 T.D.G.S. XXVII., 193.
11 R.C.A.M. Kdbt., No. 26.
12 T.D.G.S. XXXV., 14.
13 P.S.A.S. XLVII., 12.
14 T.D.G.S. XXXVII., 9.

subject. The remarkable resemblance of the Yeavering fortress to some types of Iron Age double-palisade forts is known, and therefore Camp Hill just South of Dumfries, with its long-cist cemetery apparently following closely on the occupation of the fort could be considered as possibly Dark Age—though it is probably wiser to accept it, in view of the presence of a beehive quern, as Iron Age.

While on the subject of Iron Age structures, it is worth mentioning that there is a growing feeling that there was some Christianity in the area, possibly penetrating West from Hadrian's Wall, before Ninian, and that religious sites of purely Iron Age appearance—such as the circular banked enclosure of Kirkbride on the Skyre Burn West of Gatehouse—may represent this earliest Christianity.

Several earlier finds have been re-examined in recent years—the attractive flat bronze flask, inlaid with interlace work and probably tenth century, from the chapel site at Barr of Spottes (one of the St. Constantine dedications) near Dalbeattie:[15] the cover of a Celtic-church handbell found at Monybuie much further up the Urr:[16] the remarkable strips of various gold alloys with vine-scroll and figural ornaments of decidedly Northumbrian-cross type, found somewhere in Dumfriesshire, now being re-examined at the National Museum: the Hoddam crozier-shrine, now given a tenth rather than as before an eleventh century date.

Reverting to sites, the identification of the Upper Nithsdale and Durrisdeer stretches of the Deil's Dyke as being boundary markers of the Dark Ages—very probably of the immediate pre-Norman period[17]—is a step forward: it remains to be seen if any of the Galloway sections of the " Dyke " are also pre-mediæval. It does seem now that this conception of these earth and rubble linear mounds running, usually, along the hill faces at the boundary between arable and pasture, as the boundaries of large properties rather than as the frontier of a principality accords by far the more

15 T.D.G.S. 1898-99, p. 40.
16 National Museum of Antiquities Cat. No. K.A.18.
17 P.S.A.S. LXXXIII., 174; P.S.A.S. LXXXVIII., 137.

closely with the facts as we know them—though the Dyke as a continuous earthwork still has its enthusiastic advocates. Close field survey is, of course, the answer here—a challenge to our hill-walking members. It is possible that further details of these boundaries would tell us something of the organisation of Galloway at the end of the Dark Ages, under the Scoto-Norse.

A group of sites in or on the shore of lakes is now usually dated to the late Dark Ages, with occupation continuing into mediæval or even later times. These are islands at least partly artificial and showing the remains of stone-built rectangular buildings. Most of the examples are in Wigtownshire—Dowalton Loch, White Loch of Ravenstone, Loch Maberry and Loch Ochiltree:[18] but there is a typical example in Loch Urr:[19] and the boat-shaped promontory fort, Green Island, on Milton Loch[20] seems a definitely Viking type of site. Mr Adam Barbour of Auchengibbert has many years ago ploughed up timbers from a rampart, preserved in the waterlogged soil, at this site. Crofts Moat North of Castle-Douglas,[21] though modified as a motte, is likely to have had a late Dark Age origin, for it lies in a wet hollow and appears to have a broad causeway as an original feature.

The above summary gives some idea of what is so far known of the period in our area: it is obvious that the great need is for a vigorous policy of field survey and excavation. The angles of attack are many: a closer examination of the find-spots of our area's curiously large number of late-Roman and early Byzantine coin finds and hoards: a search for the missing St. Finnian monastery somewhere in the neighbourhood of Eldrig, to which the Chapel Finnian landing-place chapel (7th-century enclosure, church 10th century)[22] and the walled hermitage site on the

18 R.C.A.M. Wigtownshire, Nos. 11, 98, 390, and p. xxviii.
19 R.C.A.M. Dumfriesshire, No. 144.
20 R.C.A.M. Kdbt., No. 491.
21 R.C.A.M. Kdbt., 141: and aerial photograph by Dr J. K. St. Joseph available in the Cambridge University collection (Crown copyright)—copy available in Dumfries Museum.
22 T.D.G.S. XXVIII., 28.

island in Castle Loch, Mochrum,[23] both relate: a continued lookout for more crosses at Kirkland of Longcastle:[24] a survey of outhouses, gateposts and drystone dykes in the Kirkmadrine area—this mysterious site, with its four early stones (including the lost Ventidius Subdiaconus stone[25] seems in the 6th century to have been at least as important as Whithorn, and from the nature of the inscribed stones it is quite possible that more may be turned up by a careful search: and a determined effort to locate the missing Hoddam Northumbrian and Roman stones where they lie buried somewhere along the drive to Hoddam Castle and bring them back to the light of day—they were used as road metal by the Pioneers during the last War, according to the account of an old County road-roller man who watched them being dumped as bottoming while he ate his lunchtime "piece." Excavation at the promontory site at Isle of Whithorn, from which the piece of clay mould of Dark Age type found by Radford at the nearby Chapel site probably came, which may have been Tudval's local base, is badly needed.

The field is, of course, a huge one: a detailed study is needed of the many "burial ground, site of" markings on the Ordnance 6″ sheets, and of the "Chapel, site of" indications too—for some at least of these are pre-mediæval: place-names sometimes give a clue—as with Relic Hill in Kirkmichael parish, where Old Irish Reilig, a burial-ground, is indicated: mediæval sites on or near earlier foundations are worth watching: the manse at Luce, a comparatively modern building, has earlier carvings built into it, though these are probably only mediæval; but the late 18th century mortuary chapel adjacent includes in the inner face of its wall, to the right of the entrance, a fragment of what looks very like Northumbrian vine-scroll, presumably from Hoddam. More information is needed on the earliest period in Dumfriesshire—all we have on it so far are two

[23] T.D.G.S. XXVIII., 41.
[24] T.D.G.S. XXXVII., 168.
[25] T.D.G.S. XXXVI., 184.

stones, the simple chrismed sandstone slab from Ruthwell,[26] probably 6th century, and the Staplegorton stone, probably 7th century, from mid-Eskdale.[27] Again—is the Moss-knowe hogback with interlace work[28] our only hogback stone? Does the Stroanfreggan late-Anglian high-cross[29] stand so entirely alone as the present distribution suggests? Stroanfreggan, indeed, with the Cross, two chapel sites, the large courtyard-fort atop Stroanfreggan Craig,[30] and standing as it does at the junction of two major valley routes, is well worth a closer look. This applies, of course, to all our nucleated forts: Stroanfreggan itself, the rather weak secondary work at Tynron Doon,[31] Trusty's Hill (where Mr Thomas' recent work[32] found only the slightest secondary works modifying the powerful Iron Age site) and Carruthers, where Mr Brian Blake's work revealed just the same contrast between the very strong original work and the weak and indecisive later compartmentalization of the site. Still further East there is the important nucleated site of Bailliehill in Westerkirk.[33] The fragment of a gold bracteate in fine "hook-and-eye ornament" filigree from Tynron Doon[34] has recently dated to 600-650 A.D.: it might well be by one of the craftsmen represented in the Sutton Hoo ship-burial hoard: this gives a useful guide to the dating of these sites, just as the Pictish symbols at Trusty's Hill[35] seem to provide a terminus ante quem for that site.

By far our most important group of nucleated forts, however, is that just across the Urr estuary from the known Early Dark Age site of Mote of Mark—Dungarry, Suie Hill, Nethertown of Almorness[36]—and it seems likely from the

26 T.D.G.S. XXVIII., 158.
27 T.D.G.S. XXXIII., 179.
28 R.C.A.M. Dumfriesshire, No. 377.
29 R.C.A.M. Dumfriesshire, No. 250; and Harper, East Galloway Sketches, r. 404.
30 R.C.A.M. Kdbt., No. 159.
31 R.C.A.M. Dumfriesshire, No. 609.
32 T.D.G.S. XXXVIII., 58.
33 R.C.A.M. Dumfriesshire, 640.
34 T.D.G.S. XII., 263: Dumfries Museum Reg. No. 186c: Cat. No.
35 R.C.A.M. Kdbt., No. 13.
36 R.C.A.M. Kdbt., Nos. 79, 406, 407.

R.C.A.M. Inventory descriptions that several of the others in the area, including Dunguile,[37] would, with the site now enveloped in woodlands on the ridge above Kirkennan House, prove to be courtyard forts. These sites near the Urr estuary seem, like Stroanfreggan and Bailliehill, mostly to be strong original works, with little evidence of Iron Age origins.

The Urr valley must have supported a relatively dense population in Dark Age times—to judge from Mote of Mark with its Frankish pottery, sub-Romano-British mortaria, Merovingian glass, and fragment of red ware of possible South French or Mediterranean origin, the Barr of Spottes flask, the Monybuie bell cover,[38] the sending of St. Constantine to the Urr by Kentigern[39]—and other than Ninian, possibly Finnian (if we reckon him a missionary), and Kentigern he is the only missionary saint connected with our area—plus the concentration of forts of known Dark Age type just West of the river mouth, and the possibly Dark Age artificial island with rectangular buildings in Loch Urr. The succession of chapel sites in one neighbourhood is a common phenomenon in our area and needs attention too—thus two 11th century interlace stones come from the present Penpont churchyard in the valley bottom, beside the ruins of the mediæval church: but half a mile away a small natural platform halfway up a steep meadowland hillside, commanding a splendid view, on Woodhead farm, has yielded 13th-century grave-covers to the plough and a check on the high-level aerial photograph reveals a sub-rectangular banked enclosure, with a smaller similar enclosure, possibly a house, just beside it, occupying the platform. What relation does this bear to the church in the valley below? One or other must have been the sub-church of this little parish, depending like neighbouring Keir and Tynron parishes, both small, on the head-church at Closeburn, which is a very large parish and which has yielded two fine interlace-work stones, one a slab and the

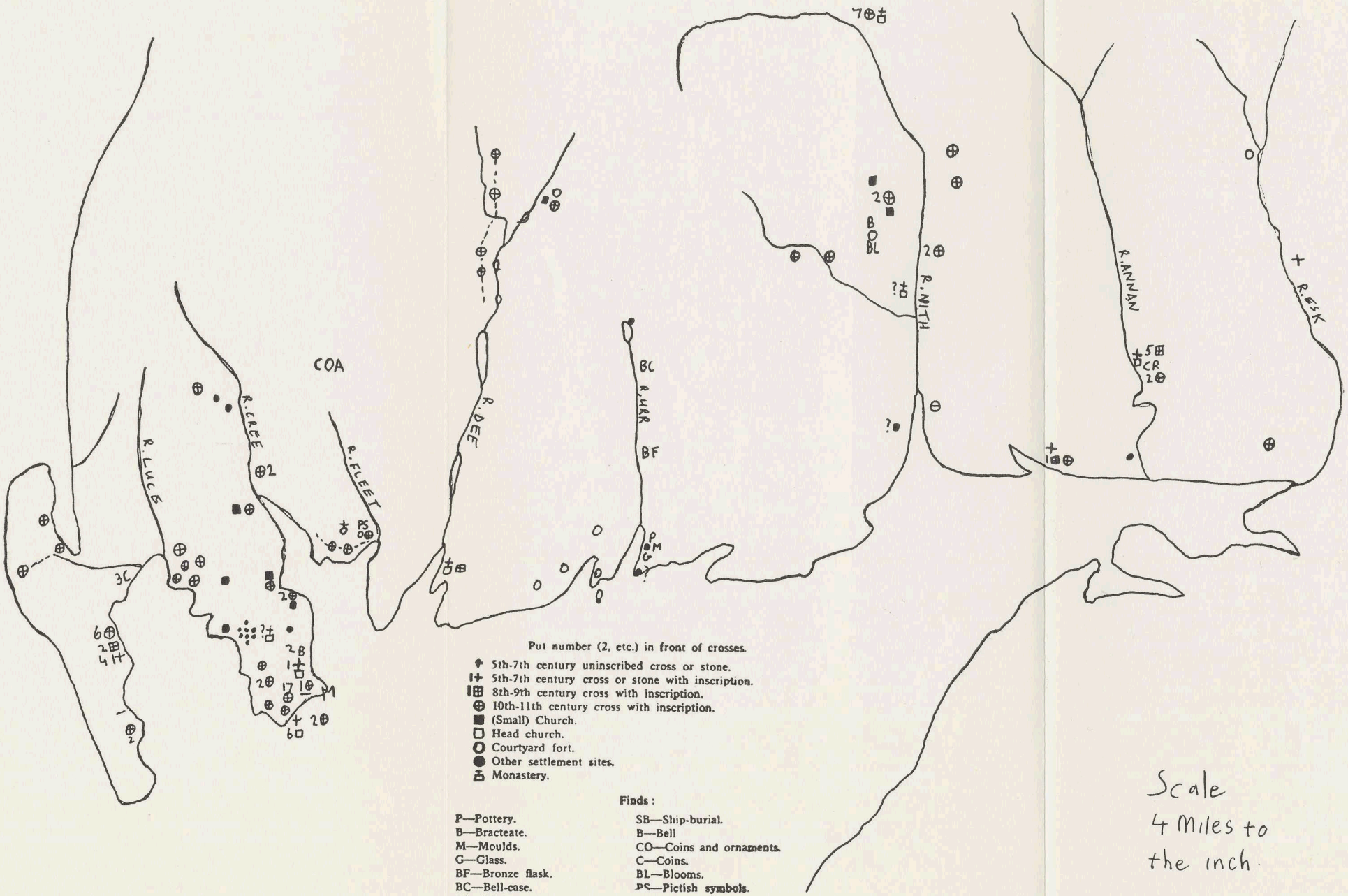
37 R.C.A.M. Kdbt., No. 199.
38 Catalogue, National Museum of Antiquities, K.18
39 T.D.G.S. XXXIV., 110.

other a high cross. Was there any sub-church in Upper Nithsdale, where Kirkconnel, with its large number of crosses, is the obvious head church?

Then again, the study of place-names may shed a little light on the Northumbrian, Norse, and Scoto-Norse periods: Northumbrian seems to have been ousting early Welsh west of the Nith by about 700:[40] Gaelic seems, apart from the 5th-century settlements, probably by Ulster Cruithne, on the Mull of Galloway,[40] to have come in after 900 with the Gall-Gaidhil: our earliest charters tell us something, through the names of witnesses, of the mixed linguistic and racial heritage of Uchtred's entourage, and the Kirkconnel and Mabie charters of the early 13th century seem to show us Northumbrian names such as Mustard-garth still in process of being submerged by Gaelic: the motte at Dinnings in mid-Nithsdale seems itself to be the source of the name—there is no evidence of any dunans nearby: and "The Brough" at Southwick, another motte, stands on the raised beach ridge called, at this point, Dunjumpin—Dun Tiompan—although again there is no evidence for any Iron Age fort nearby.

The pockets of strongest Northumbrian influence are still clear—around Whithorn and around Gatehouse in the West for instance—with many early English names, of which "Fleet" is an obvious example: but the Norse place-name pattern is more complicated. Is there a gap in time between our two clearly separated groups—the Western, coastal one —Southwick, Satterness, Eggerness and so on—and the Eastern, inland one—Tinwald, Torthorwald, Tundergarth, Applegarth, Waterbeck and many others? should we see the coastal group—reaching as far perhaps as the probable ship-burial at Gretna—as earlier and seaborne, while the other group was later and penetrated overland from the Danelaw? Is there anything in the suggestion that some of the names—Torthorwald for instance—may have come in by transplantations of Teutonic tribes by the Romans—as with Hnaudfried's tribe at Housesteads on Hadrian's

[40] T.D.G.S. XXXII., 77.


COA
R. CREE
R. LUCE
R. FLEET
R. BLADE
R. URR
R. NITH
R. ANNAN
R. ESK
BC
BF
Put number (2, etc.) in front of crosses.
5th-7th century uninscribed cross or stone.
5th-7th century cross or stone with inscription.
8th-9th century cross with inscription.
10th-11th century cross with inscription.
(Small) Church.
Head church.
Courtyard fort.
Other settlement sites.
Monastery.
Finds :
P—Pottery.
B—Bracteate.
M—Moulds.
G—Glass.
BF—Bronze flask.
BC—Bell-case.
VS—Viking sword.
SB—Ship-burial.
B—Bell
CO—Coins and ornaments.
C—Coins.
BL—Blooms.
PS—Pictish symbols.
Scale
4 Miles to
the inch.

Wall? The Norse double-handed sword, shroud pin, and bead from St. Cuthbert's cemetery in Kirkcudbright and the glass linen-smoother from just outside the cemetery[41] indicate at least semi-Christian, and therefore probably late, Norse influence there: but would these people not have spoken Hebridean Gaelic? Had there been an earlier prospecting of the Solway? Fergus' father was named Somerled, a good Norse name, but there is little sign of Norse in the names of the Scoto-Norse ruling class by Fergus' time or that of his sons.

Another line of evidence suggesting further research lies in the distribution of late Iona-school crosses, which we find in North Wigtownshire and the S.W. Stewartry, quite outside the area of the more indigenous "Whithorn" type: this suggests the northern affinities of the Gall-Gaidhil, as does the existence until the 1170's in the mid-Dee valley of a group of parishes—Kelton, Kirkcormack, possibly Parton, and Balmaghie—controlled by Iona.

This paper has been discursive: but its purpose has been to point out what we know and indicate something of where the worst gaps in our knowledge are, and to indicate some possible lines of research to fill these—we do not even have a clear idea of population distribution throughout our area during these blank centuries! The field is wide: many members and friends of the Society must have skills which could help.

POSTSCRIPT

The recent Ancient Monuments Inspectorate excavations at Whithorn with their identification of an oriented long cist cemetery on the subsoil, and apparently following cremations on the same site, adjacent to the early Oratory, must be mentioned.

CONTRACTIONS

P.S.A.S. for Proceedings of the Society of Antiquaries of Scotland.
T.D.G.S. for Transactions of the Dumfries and Galloway Natural History and Antiquarian Society.
R.C.A.M. for the Royal Commission of Ancient Monument's Inventory.
Kdbt. for Kirkcudbright.

41 P.S.A.S. LXXXVIII., 226.

ARTICLE 11

The Relation of Shell Beds to Living Molluscan Faunas

By JOHN B. WILSON

In recent years palæontologists have become increasingly aware of the necessity to study fossils as ecological communities (Craig, 1963). In order to interpret fossil shell beds, their mode of formation and their relationship to the living populations from which they were derived, it is essential to understand the processes operating in the formation of modern shell beds. The present writer has been working on this problem in the Solway Firth and in particular on the living molluscan faunas and their associated shell beds in the sand flats and mud flats at the mouth of the River Nith 14 miles south of Dumfries.

The Nith with its tributaries and the Carse Gut are the main drainage channels of the sand flats. Major changes in the courses of these channels take place over periods of several years. Changes due to storms or high rainfall may not, however, be permanent, although much sediment is reworked by the stream while in flood.

METHODS

In order to study shell bed formation adequately quantitative methods must be employed. In this study samples have been collected along transects from the Carsethorn shore to the west bank of the Nith Channel. Sample stations were selected such that any relationship between surface changes and the fauna would be readily detected. At each station a metal frame defining one-tenth square metre was sunk to a depth of 25 cms and successive layers of sediment removed. From each layer a sediment sample was retained for sedimentary and microfaunal studies, the rest sieved and the macrofauna collected.

LIVING FAUNA

The molluscan fauna inhabiting the sand and mud flats at present includes *Macoma balthica, Scrobicularia plana,*

Mya arenaria, Cardium edule, Angulus [*Tellina*] *tenuis, Littorina littorea* and *Hydrobia ulvæ*. In the Mersehead Sands west of Southerness *Mactra corallina* and *Donax vittatus* occur.

Hydrobia ulvæ is common on the inshore mud flats and densities of up to 15,000 per square metre are not uncommon in the summer. During the spring, however, the density falls to between 6000 and 7000 per square metre. It is likely that winter storms remove the majority of the shells. *Macoma balthica* occurs commonly in mud or silt 2 - 5 cms below the surface of the sediment. Densities of over 100 per square metre are not uncommon in the inshore mud flats. The density drops off rapidly, however, as the grain-size of the sediment increases. *Scrobicularia plana* lives in mud and silt at depths of 8 - 12 cms. It frequently occurs below the *Macoma* layer, but in much lower densities. *Mya arenaria* prefers silt or sand and lives at depths of 20 - 30 cms. Thus it is possible to have below the surface fauna of lamellibranch spat and *Hydrobia ulvæ* three different molluscan species living, each distinct from the other, at three different depths in the sediment.

Both *Macoma* and *Scrobicularia* come to the surface layer when moving and leave characteristic trails on the sediment. While at the surface they are preyed upon by sea-birds. Dead shells of these genera are thus common on inshore mud flats. Sometimes the bird crushes the *Macoma*, shell and all, and ejects the shell fragments as a pellet onto the mud. This forms an important source of shell fragments in an environment where current action is not great enough to produce comparable results.

Cardium edule is found mainly in the more sandy sediment. *Angulus* [*Tellina*] *tenuis* occurs only in the coarser, clean-washed sands and is comparatively rare.

SHELL BEDS

Two kinds of shell accumulation can be recognised.

(1) Accumulations on Sand Flats.

These are formed by tidal currents which concentrate

the shells into definite areas on the sand flats. They are composed largely of *Cardium* and *Macoma* shells, i.e. molluscs which live close to the surface and hence are most easily eroded out. Deep burrowers such as *Mya* are rare. Shell beds of this type are not usually permanent and are therefore unlikely to be preserved.

(2) Accumulations on Channel Floors.

These consist of shells of *Cardium, Macoma, Scrobicularia* and *Mya* and are formed by lateral erosion of migrating stream channels. As the larger channels frequently cut below the *Mya* horizon, shells of *Mya* are present.

In a faunal analysis of a past channel floor deposit the composition was, in order of decreasing abundance, *Cardium edule, Macoma balthica, Mytilus edulis, Mya arenaria, Scrobicularia plana* and *Hydrobia ulvæ*. The *Macoma* and *Scrobicularia* shells show little evidence of transportation and many of the shells are not disarticulated. All the shells of *Cardium* are, however, disarticulated and show evidence of having been transported some distance to the site of deposition. *Mytilus* is not found in the present living community, therefore its presence in the shell bed is either due to a population which thrived in the past, or the valves have been washed in from another area. The valves are generally worn and abraided and it is therefore probable that they have been transported by tidal currents to the shell bed.

Lever (1958, and Lever et al. 1961) has shown the value of experiments with dyed shells in studying the movement of shells on beaches. Several experiments have been performed by the writer with *Cardium* shells on the Solway mud flats and some interesting results have been obtained. Further experiments on a larger scale are projected.

This study, which is being undertaken at the Grant Institute of Geology, West Mains Road, Edinburgh, is supported by The Carnegie Trust for the Universities of Scotland.

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ARTICLE 12

The Churches of Dumfriesshire and Galloway

By C. A. RALEGH RADFORD.

A centenary is the time to look back and look forward—to pay tribute to the achievements of our predecessors and to seek how best to carry on the torch that has been handed to us. When, therefore, you did me the honour to invite me to address you on this occasion, I felt that I should choose some general topic within the field of medieval archæology, review the present state of our knowledge and attempt, however sketchily, to indicate directions for future research. I shall not to-day attempt to enumerate the many workers who have contributed to the study of the ecclesiastical archæology of the south-west of Scotland in the past century. I shall allude to their results and the mere fact that I am able in this short lecture to present so comprehensive a survey is a sufficient testimony to the activity of these scholars and the success of their efforts. It would be invidious to name individuals; the Transactions of your Society and the old Collections of Ayrshire and Galloway contain the greater part of the material that I shall be citing. There are also two national organisations—the Ancient Monuments Inspectorate of the Ministry of Public Buildings and Works and the Royal Commission on Ancient and Historical Monuments—which have contributed greatly to the corpus available to the students of medieval ecclesiastical remains in this region. To all these forerunners I would pay a sincere tribute. I cannot claim that intimate acquaintance with local detail that distinguishes much of their work; instead I shall try to place their results in a logical sequence, to show them as a part of an unfolding development that gives to medieval ecclesiastical archæology its own historical unity.

Organised Christianity came to Scotland in the 5th century. Individual Christians there certainly were before this date; small Christian groups there may well have been.

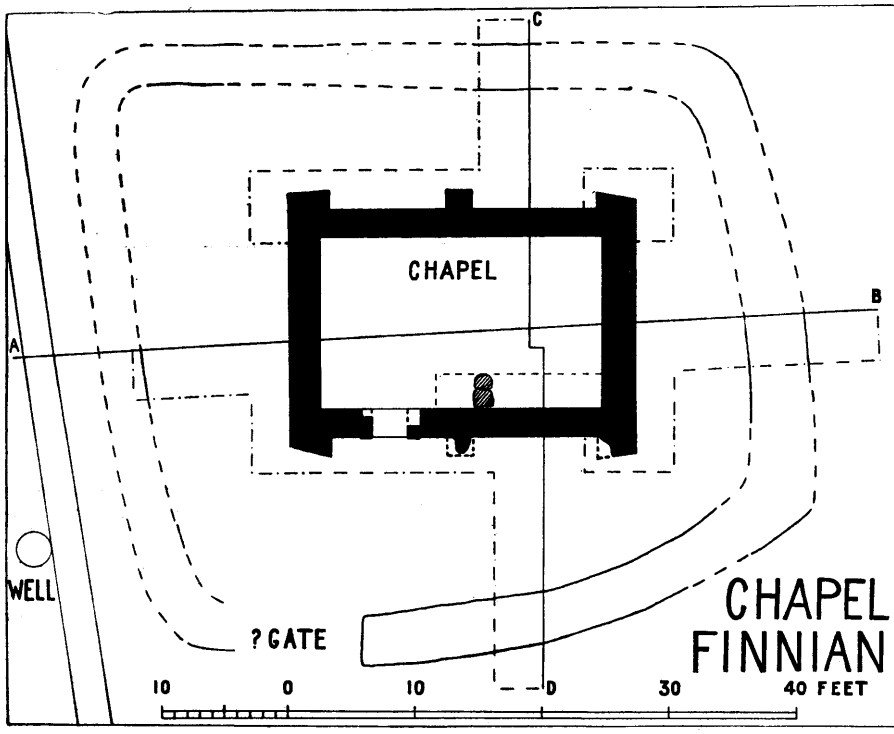


Fig. 1.

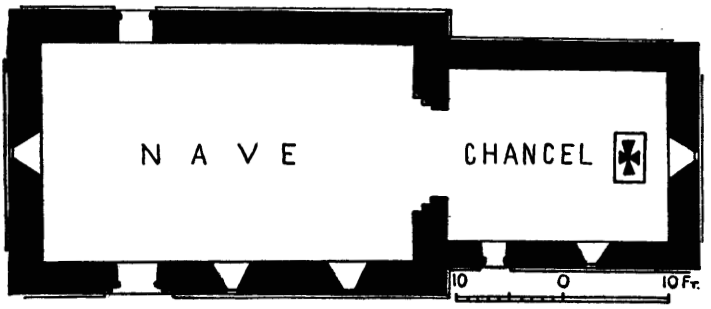


Fig. 4—Cruggleton Church.

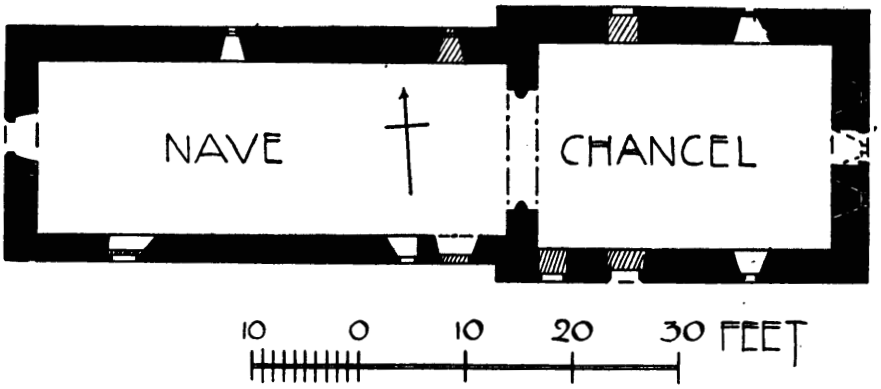


Fig. 5—Buittle Church.

So much we must admit when we hear Tertullian, writing about A.D. 210 at the height of the Roman penetration of the north under Severus, cite as proof of the universality of the Church, the existence of places in Britain inaccessible to Rome yet subject to Christ.[1] But these individuals or groups have left no material remains so far discovered and we may suspect that such services as were held followed the apostolic precedent and took place in dwelling-houses or other secular buildings. It is the 5th century, the age of St. Ninian, that has left the earliest Christian relics, the memorial stones which mark the tombs of British churchmen and chieftains, who had accepted the Christian faith. Some of these memorials were found at churches; Whithorn is an outstanding example. The stone commemorating Latinus and his daughter is among the oldest Christian memorials in Britain; it dates from c. A.D. 450.[2] Others lie far away from any known church site and here I must cite an example from beyond the borders of the three counties. The Catstone at Kirkliston near Edinburgh[3] is approximately contemporary with the Latinus inscription. It stands to-day in a cornfield, above a cemetery of long cists, the normal form of late Roman burial in the area. It illustrates the gradual take-over by Christian communities of the older pagan graveyards, a process well illustrated on many Continental sites, including St. Peter's at Rome.[4] Many of these cemeteries developed into Christian churches; others, like Kirkliston, were deserted and forgotten, as the practice of churchyard burial became normal. The Scottish data are too few to show when this happened, but the British evidence as a whole points to the period between A.D. 550 and 600.[5]

1 Tertulliani adversus Judaeos, vii., 4.
2 DGNHAS III., xxxiv., 170-5.
3 RCAHMS: Midlothian and Westlothian, No. 130.
4 E. Kirschbaum, The Tombs of St Peter and St Paul, 32-42.
5 I have dealt more fully with the origins and development of monasticism in Britain in my presidential address to the Cambrian Archæological Association (Archæologia Cambrensis, 1961, xx.-xx.) and would refer readers to that article for a more detailed account of the parallels cited in the earlier part of this paper.

Whithorn has also produced a later inscription, dating from the 7th century and recording a locus or holy place named in honour of Peter the Apostle.[6] This stone is evidence of the existence at Whithorn of a relic of St. Peter —not necessarily, nor even probably, a corporeal relic, but a fragment of silk hallowed by contact with the Apostle's tomb. Such relics were used in the consecration of altars and the inscription points to a small chapel or oratory. It was found nearly ½ mile from the main church at Whithorn.

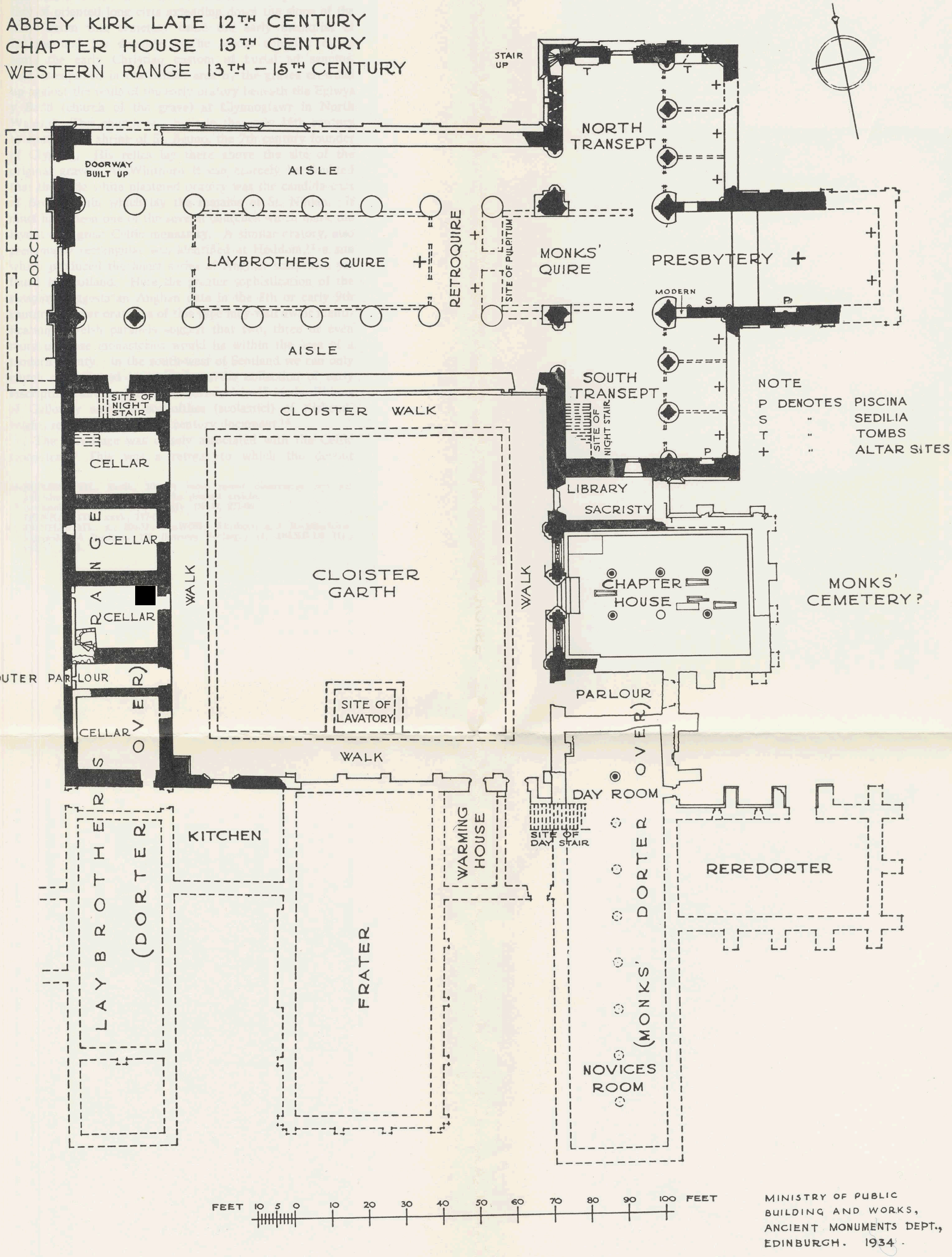
Whithorn brings us at once to the core of the early Christian problem in Celtic lands—how was the Church organised—and provides the answer—by means of monasteries. The monastery has meant many things at different times. The Celtic monastery follows a tradition older than that of St. Benedict; it goes back through the Gaulish monasteries of the 4th century to the hermits of the Theban desert in Egypt. The Celtic monastery is most clearly delineated in the Welsh laws of Hywel Dda (ob. 940). It was a community of believers—laymen as well as clerics—who sought to serve God. The monastery had pastoral responsibility for the district in which it was sited. The monastery provided education; it was the sole centre of learning in a land largely illiterate. The monastery wielded considerable political influence and fostered the arts and crafts.

We know little about the layout of these monasteries. Deerness in Orkney,[7] where remoteness has preserved the plan, and Tintagel in Cornwall,[8] where excavation has disclosed the buildings, are the best British examples, though an extensive unpublished plan has been recorded at Kingarth on Bute. At Whithorn the main church has gone, planed off when the top of the hill was levelled by the builders of the 12th century church. But on the axial line running down the eastern slope of the hill are the remains

6 DGNHAS III., xxxiv., 175-8.
7 RCAHMS: Orkney and Shetland, No. 621.
8 Journal of Royal Institution of Cornwall, vol. xxv., appendix (1942), 25-41; MoWOG, Tintagel Castle.

THE ABBEY OF DUNDRENNAN

ABBEY KIRK LATE 12TH CENTURY
CHAPTER HOUSE 13TH CENTURY
WESTERN RANGE 13TH – 15TH CENTURY



NOTE
P DENOTES PISCINA
S " SEDILIA
T " TOMBS
+ " ALTAR SITES

MINISTRY OF PUBLIC BUILDING AND WORKS, ANCIENT MONUMENTS DEPT., EDINBURGH. 1934.

Fig. 2.

of a small rectangular oratory[9] of roughly split blocks of local stone set in clay with the faces plastered inside and out with a thick cream coloured mortar. It lay in a cemetery of oriented long cists extending down the slope of the hill. From this cemetery came the early memorial of Latinus and his daughter. The whole complex represents the early Christian custom of burial ad sanctos, best exemplified in the British area by the graves crowded up against the walls of the early oratory beneath the Eglwys y Bedd (church of the grave) at Clynnogfawr in North Wales.[10] This church was built in the early 16th century to contain the shrine of St. Beuno, the 7th century founder of Clynnog. His relics lay there above the site of the original grave. At Whithorn it can scarcely be doubted that the little white plastered oratory was the candida casa of Bede, within which lay the remains of St. Ninian. It must have been one of the several churches which mark the layout of a great Celtic monastery. A similar oratory, also presumably rectangular was identified at Hoddom,[11] a site which produced the finest series of Anglian sculptures yet found in Scotland. Here the greater sophistication of the masonry suggests an Anglian date in the 8th or early 9th century. Other oratories of this type may well await identification. Welsh parallels suggest that two, three or even more of these monasteries would lie within the area of a modern county. In the south-west of Scotland we can only clutch at scattered hints, such as the collection of early inscriptions and sculptures at Kirkmadrine[12] in the Rhinns of Galloway and the scollofthes (scolastici) of Kirkcudbright, referred to in a 12th century document.[13]

The hermitage was closely associated with the Celtic monastery. This was a retreat to which the devout

9 DGNHAS III., xxvii., 106-19; more recent discoveries, not yet published, are summarised in the present article.
10 Archæologia Cambrensis VI.. xiv. (1914), 271-96.
11 DGNHAS III., xxxi., 177-81.
12 DGNHAS III., x., 209-11; MoWOG, Whithorn and Kirkmadrine
13 Reginald of Durham. 179 (Surtees Society); cf. DGNHAS III., xxxiv., 110-3.

Christian member of the community could withdraw either temporarily or finally in old age, to live as a soldier of Christ. The type site in Britain is Ynys Seiriol off the east point of Anglesey, where church and small cells are set within a pear-shaped enclosure, surrounded by little fields.[14] In the south-west of Scotland there is no clear parallel, though it is probable that the remains on Ardwall Island, Kirkcudbrightshire, are those of a small hermitage.[15] Even more interesting is St. Ninian's Cave, on the shore by the mouth of the Physgyll Burn, some 3 miles south of Whithorn.[16] The early crosses going back to the 6th or 7th century show that this lonely retreat was used by Christian recluses; it must have formed the focus of some hermitage associated with Whithorn.

Outside the monasteries were a number of holy places (loca sancta), areas enclosed and set apart for the holding of services and, in some cases, for the burial of the dead. These places were normally served from the monastery responsible for the pastoral needs of the area. Many of them later became medieval parish churches and a number still continue in use as churches and graveyards. In such cases excavation is clearly impractical and in any case medieval and later burials are likely to have destroyed the evidence that we should be seeking. A survey of the evidence from the whole British area suggests that in origin these holy places were enclosures marked only by a cross standing erect. As the Christian population grew in numbers and wealth, a small church, often in timber, would be built within the enclosure and this in turn would be rebuilt in stone. St Ninian's Isle[17] off the west coast of Bute offers an example in an adjoining area. The site was originally a pagan cemetery with long cists set north and south. This

14 Royal Commission on Ancient Monuments in Wales: Anglesey, 141-4.
15 DGNHAS III., xxxvii., 79-82.
16 DGNHAS III., xxxiv., 152-61; ACAG, v., 1-8, and vi., 34-7.
17 Buteshire Natural History Society, xiv., 62-76. Similarly, cemeteries of long cists with varying orientations and without grave goods have been found at Terally, Wigtownshire, and in Camp Hill Fort, Dumfriesshire.

was enclosed with a wall of dry stone and turf, within which most of the graves are oriented and Christian; in some cases these graves cut through earlier pagan burials. Finally a small rectangular oratory of stone was erected within the enclosure. The historical and architectural evidence suggests that the whole sequence antedates the Norse occupation of Bute in the later 9th century. Southwestern Scotland can show no similar sequence. Chapel Finnian,[18] (fig. 1) on the shore of Luce Bay, west of Port William has an oratory of stone, dating from the 10th or 11th century and set within an earlier enclosure, but the absence of burials suggests a specialized function in connection with a monastery, which was perhaps situated on the island in Castle Loch, Mochrum or in that area. The origin of the chapel on the Isle of Whithorn[19] was probably similar, though the visible architectural remains are of the 12th century or later.

In a few cases the survival on the site of a parish church of an early cross enables us to postulate the existence of one of the holy places to which reference has just been made. Staplegordon[20] in Dumfriesshire is a case; the boulder with the roughly carved cross of primitive form can hardly be later than the 8th century and may be considerably older. This was intended as a headstone; its survival attests the early existence of a Christian burial ground. In the Machars around Whithorn a number of medieval parish churches have yielded crosses of the 10th or 11th century. These include large and elaborate examples such as those at Kirkinner[21] and from Longcastle[22] (now in Whithorn Museum) as well as smaller fragments such as those at Wigtown[23] and Glasserton.[24]. The finer specimens were probably the high crosses marking

18 DGNHAS III., xxviii., 28-40 and 50-3.
19 DGNHAS III., xxvii., 120-3; xxxiv., 162-70; xxxvii., 71-9.
20 DGNHAS III., xxxiii., 179-80.
21 RCAHMS: Wigtownshire, No. 124.
22 DGNHAS III., x., 221-2.
23 RCAHMS: Wigtownshire, No. 526.
24 RCAHMS: Wigtownshire, No. 1.

out the sacred character of the site; the smaller were probably individual headstones.

The movement of ecclesiastical reform which penetrated into Scotland in the late 11th and 12th centuries brought about a gradual approximation to post-Conquest English and Continental practice. The older system, under which the holy places were served from the communities settled in the monasteries, was broken up and a parochial system organized. Gradually the older monasteries declined and became ordinary parish churches, marked out only by their prouder traditions and greater wealth. The first stage in this development shows the monastery reforming itself, a process attested architecturally by the erection of a larger church in the current Romanesque style. In Wales these churches were cruciform. The only example that we can point to in the south-west of Scotland is the Cathedral at Whithorn,[25] where there is evidence that a cruciform church with a short nave was erected about the middle of the 12th century. Unfortunately the form of the east end is unknown; it was probably apsidal as at Bangor.[26] The monastery at Kirkcudbright, the continued existence of which is documentarily attested about 1160 was also provided with a Romanesque church, fragments of which are preserved in the Stewartry Museum. The large collection of gravestones of this period found at Hoddom[27] (now in the Burgh Museum, Dumfries) suggests that this community also continued to flourish during the 12th century, though no evidence of a Romanesque church has been recovered.

Legally the 12th century reformers no longer classed these communities as monasteries; they became houses of secular canons, each of whom had his separate dwelling, while drawing on a common fund for his emoluments. This form of ecclesiastical organization was not popular with

25 DGNHAS III., xxvii., 123-6, xxxiv., 146-50 and 183-5.
26 Royal Commission on Ancient Monuments in Wales: Caernarvonshire, ii., No. 681.
27 DGNHAS III., xxxi., 182-4.

the reformers and only the most powerful communities survived without change—Glasgow Cathedral is an outstanding example. Others became houses of canons regular, living as communities under the Rule of St. Augustine or some stricter rule, such as that of St Norbert, the founder of the Praemonstratensians. Whithorn illustrates the process. The old monastic community became canons regular under Bishop Gillealdan (c. 1125-54) and adopted the Praemonstratensian rule under his successor, Bishop Christian (1154-86). Bishop Christian was a supporter of the Praemonstratensians and four out of the six Scottish houses of this Order lay in the south-west of Scotland.

Praemonstratensian churches normally followed the standard Cistercian plan (p. infra), except that the nave was aisleless.[28] At Whithorn the mid-12th century cruciform Cathedral was replaced with a church of this type.[29] The short nave remained aisleless, but was doubled in length. The transept was extended and provided with eastern chapels. An exceptional feature, rendered necessary by the possession of the relics of St. Ninian, was the eastern chapel above a crypt, behind the high altar. This chapel, extending above a part of the early oratory containing the tomb of the saint, was designed for the feretory into which his relics were translated. The remains, including the vaulted crypt, which was extensively rebuilt about 1900, date from the late 12th or early 13th century. Only fragments of the conventual buildings on the north side of the nave can be located, though the general lines of the plan are clear.

Soulseat, the oldest of the Praemonstratensian houses in Galloway, has no standing remains,[30] though the outlines of a cruciform church can still be traced. At the

28 Archæologia, lxxiii., 117-46.

29 ACAG, x., 167-96; DGNHAS III., xxxiv., 185-91. The recent excavations have shown that the restored plan in this article needs revision but the alterations do not affect the argument put forward in the text.

30 RCAHMS: Wigtownshire, No. 59.

other Praemonstratensian sites—Dercongal or Holywood[31] and Tongland[32]—the layout cannot now be recovered. The same is true of the Augustinian house on St. Mary's Isle near Kirkcudbright,[33] founded by Fergus, Lord of Galloway, on an earlier ecclesiastical site.

The 12th century reforms also introduced into Scotland monasteries of the Benedictine tradition. In the south-west it was the Cistercian Order with its more austere rule, that represented this movement. The earliest Cistercian foundation in Galloway was Dundrennan (fig. 2) in the Stewartry founded by Fergus, Lord of Galloway, in 1142. Dundrennan had two daughters, Glenluce in Wigtownshire, founded in 1191, and Sweetheart, again in the Stewartry, founded in 1273. The founder of Sweetheart was Devorgilla, the wife of John Balliol. All three houses have left substantial remains, which have been cleared and laid out by the Ministry of Works. The Benedictine nunnery of Lincluden, founded by Uchtryd, the son of Fergus, represents another facet of the same movement. There are only fragmentary traces of the 12th century church incorporated in the masonry of the later College (fig. 3).

The Cistercian plan is a specialised development of the normal Benedictine monastery.[34] It is more rigidly standardised, as the Order itself was a more centralised organisation with uniformity maintained by a system of annual chapters held at Citeaux and by frequent visitations of each house. The Cistercian plan shows a cruciform church with a cloister on one side, generally the south, set in the angle between the nave and the transept. Three ranges enclose the other sides of the cloister. On the east, continuing the line of the transept, is the Chapter House with the Dormitory on the first floor. This range extends beyond the far side of the cloister, providing access to the Latrine or Reredorter, which was flushed by water taken

31 RCAHMS: Dumfriesshire, No. 286.
32 RCAHMS: Stewartry of Kirkcudbright, No. 439.
33 RCAHMS: Stewartry of Kirkcudbright, No. 265.
34 Ministry of Public Buildings and Works: Abbeys (R. Gilyard Beer) and Scottish Abbeys (Stewart Cruden).

from the nearest convenient source. On the far side of the cloister was the Refectory. In the earlier layout this ran alongside the walk parallel to the nave of the church; later more space was obtained by setting this building at right angles to the cloister walk, parallel to the Dormitory. The western range, again in two stories, was allotted to the lay brothers, on whom fell the heavier agricultural work and other tasks of the community. Dundrennan[35] exhibits these features in their classic form. Sweetheart[36] follows the same model with one interesting variation. In spite of the restoration shown on the official plan, there is no evidence that the west range was ever built and the arrangement of the doorway on this side of the cloister seems to preclude a building in this position. The lay brothers formed a difficult element once the early fervour of the Order had passed; their importance was greatly diminished in the 13th century and by 1300 they were no longer an integral part of the organisation. It is improbable that there were ever lay brothers at Sweetheart, founded in 1273; their absence would account for the lack of a western range. Glenluce,[37] though an early foundation, was partly rebuilt in the 15th century. The Chapter House, which is of this date, represents a more spacious arrangement and the ornamental detail marks a certain deviation from the austere standards of an earlier age. The subsidiary buildings at Glenluce are of considerable interest, but they lie beyond the scope of this review.

The cruciform Cistercian church had, in addition to the high altar in the eastern arm, a range of chapels with altars —two or three on each side—in the transept. The liturgical quire with the stalls of the monks, occupied the crossing and one or more bays of the nave; there were return stalls against the east face of the pulpitum, a solid stone screen set across the nave. The pulpitum had a central door

35 RCAHMS: Stewartry of Kirkcudbright, No. 398; MoWOG, The Abbey of Dundrennan: ACAG, x., 55-96.
36 RCAHMS: Stewartry of Kirkcudbright, No. 380; MoWOG, Sweetheart Abbey; ACAG, x., 1-54.
37 RCAHMS: Wigtownshire, No. 296; ACAG, x., 197-232.

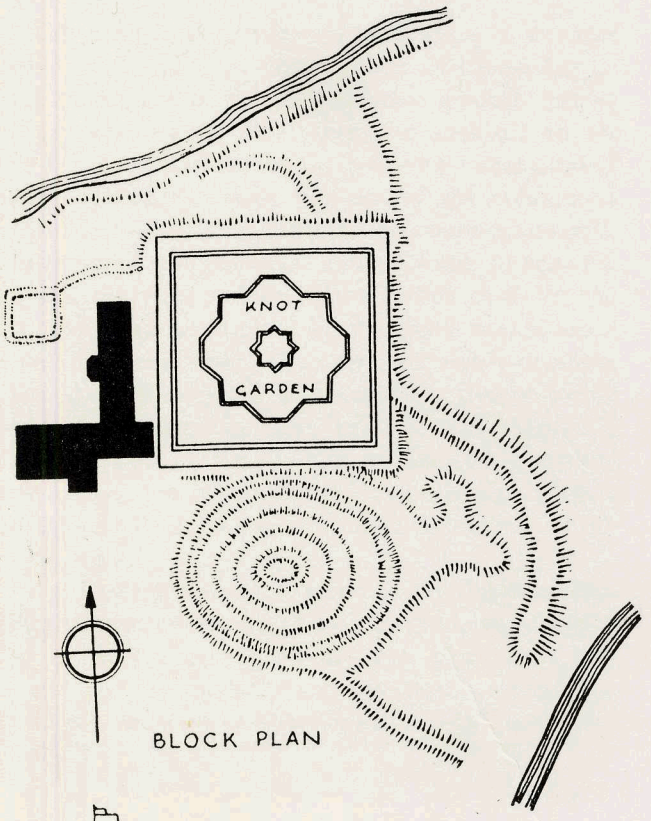
into the quire and the gallery above, which was used for parts of the service. The nave west of the pulpitum and beyond an open space had a second quire for the lay brothers. The Cistercian church was strictly the church of the community. It was neither intended nor desired that the laity should normally attend the services and no provision was made for them. The Cistercian Rule laid stress on the avoidance of unnecessary ornament. The churches were of the simplest character with austere detail. The workmanship is generally excellent. These features are well illustrated at Dundrennan; later work, as at Glenluce, allows a certain relaxation in the matter of ornament. The Rule forbade Cistercians to undertake the cure of souls and bishops were insistent that parish churches granted to Cistercian houses should have provision made for the institution of a secular priest as Vicar and for his adequate remuneration from the revenues of the benefice.

The Rule of St. Augustine drawn up for canons, not monks, was designed to allow the members of the community to carry out pastoral duties in the churches they possessed. It is therefore the normal form of transition from the older type of Celtic monastery, as we have seen at Whithorn. But the arrangement was not free from difficulties and in the later Middle Ages provision was normally made for the institution of a Vicar in parish churches held by houses of Canons Regular.

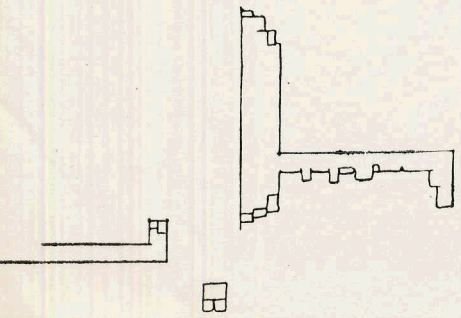
In the later Middle Ages a different form of ecclesiastical foundation became popular. This is the Collegiate Church of priests under the headship of a Provost. The College was normally founded to say masses for the souls of the parents and ancestors of the founder and for the founder himself after his death. The College was a corporate body with a common life, but the members were not bound by the monastic vows. The provostship in particular was a position of dignity and many holders of such office took an active and prominent part in the affairs of the day.

LINCLUDEN COLLEGE
KIRKCUDBRIGHTSHIRE

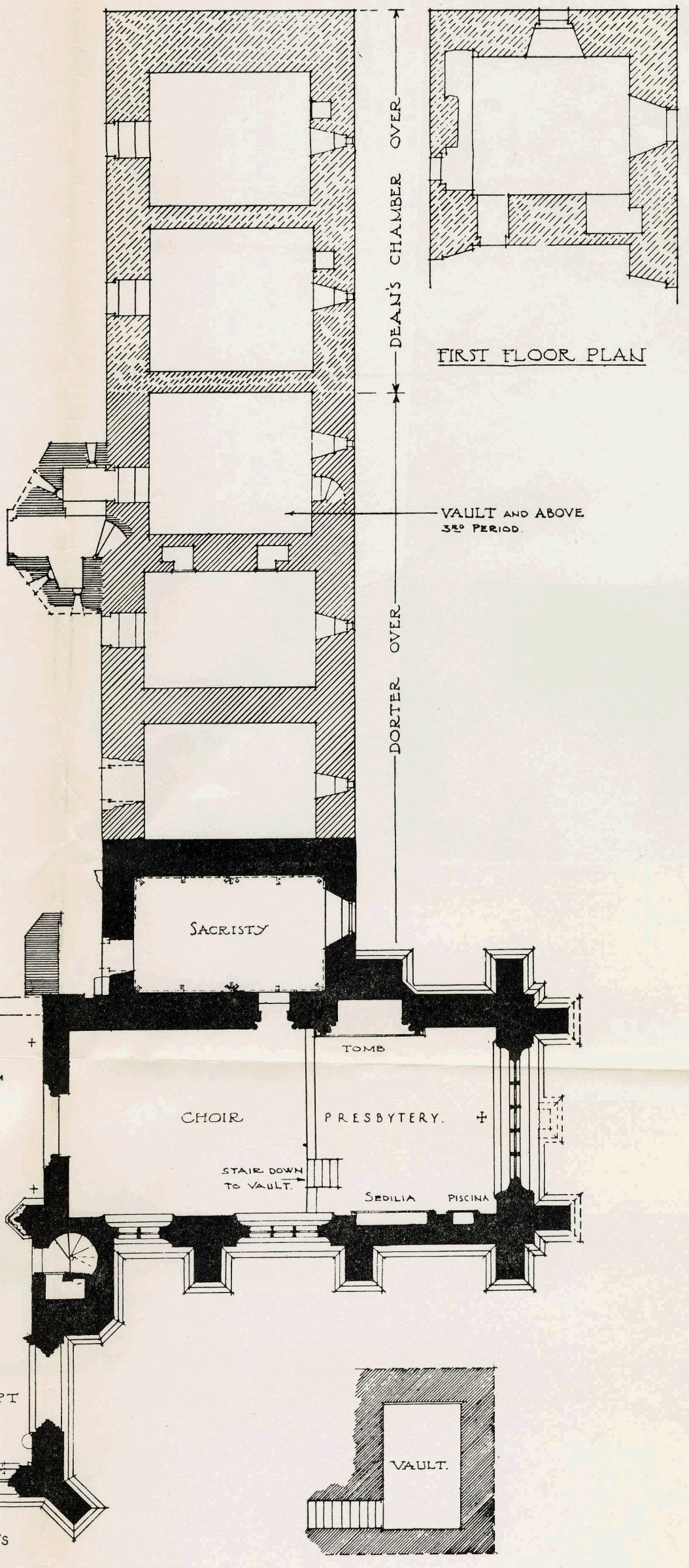
1402
15TH CENTURY (SECOND PERIOD)
15TH CENTURY (THIRD PERIOD)
16TH CENTURY (FOURTH PERIOD)



BLOCK PLAN



WEST PORTAL



FIRST FLOOR PLAN

MINISTRY OF PUBLIC BUILDING AND WORKS,
A. M. BRANCH,
122 GEORGE ST.,
EDINBURGH: NOV 48.

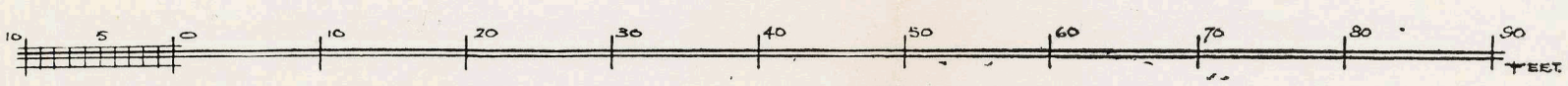


Fig. 3.

Lincluden, outside Dumfries, but in the Stewartry of Kirkcudbright, is a typical example of the late medieval College.[38] The nunnery founded by Uchtryd was suppressed in the late 14th century by Archibald the Grim, Earl of Douglas. In its place he founded a college for a Provost and prebendaries. The Earl was succeeded by his son Archibald the Tyneman, who married Margaret, daughter of King Robert III. Archibald Tyneman died in 1424 at the battle of Verneuil, fighting for the King of France against the English invader. He was buried in Tours. After his death his widow, the Princess Margaret, increased the endowment of Lincluden and added to the foundation so that it consisted of a Provost, 8 prebendaries and 24 poor bedesmen, together with a Chaplain, a total of 34.

The collegiate church of Lincluden was arranged with a large and elaborate eastern arm of three bays, which formed the quire of the prebendaries, a south transept and a short aisled nave. The quire was enclosed on the west with a solid stone screen or pulpitum, surmounted by a gallery. There the main services of the community—the masses for the founder and his kin—were celebrated. The quire included the elaborate double tomb designed for the Earl and his wife and therefore earlier than his death in 1424; she alone was buried in this tomb, which has elaborate heraldic ornament. The quire was richly decorated and furnished with canopied wooden stalls, two of which were preserved by the Maxwells in Terregles "Queir," after the suppression of the College in the 16th century. The whole conception of the church at Lincluden with its rich decoration reflects the artistocratic splendour of the late Middle Ages.

The College formed a block of buildings probably enclosing a court on the north side of the nave of the church. Only the east range survives. The three bays next the church have the sacristry and two vaulted storerooms on

38 RCAHMS: Stewartry of Kirkcudbright, No. 431; ACAG, x., 97-166; W. M'Dowall, The Chronicles of Lincluden.

the ground floor. Above was a spacious apartment which would have formed the provost's lodging. Beyond this a lofty block still rises to eaves level. Here, two on each floor, were the apartments of the prebendaries, each consisting of a large room with a small annexe containing a latrine. A common hall would normally be expected and probably closed the north side of the courtyard. The west range, the foundations of which are known to exist, probably housed the bedesmen.

The parish churches of Dumfriesshire and Galloway preserve little of their medieval architecture. Destruction and modern rebuilding have destroyed most of the earlier remains. The oldest still surviving, though no longer in use as a church, is at Cruggleton (fig. 4), near Whithorn.[39] This consists of a nave with a small narrower chancel. The details of the south door and of the chancel arch indicate a date in the first half of the 12th century. Though simple the building was probably earlier and finer than most of the parish churches. It lies just below the castle of Cruggleton, which was the dwelling of Fergus, Lord of Galloway, and owes its distinction to his munificence.[40]

Similar churches, but often smaller and plainer, are likely to have arisen as the old monastic communities, like Hoddom, broke up in the course of the 12th century and the land was divided into separate parishes, each with its own priest. Occasionally a few fragments remain to mark the date. At Mochrum in Wigtownshire I was shown two late Romanesque corbels built into a byre on the farm of Boghouse near the parish church. They came from the corbel table of a building dating from the last quarter of the 12th century and establish the date at which this parish church was erected. In the Museum at Kirkcudbright the elaborate Romanesque font from the church of Dunrod shows that this was built about the middle of the 12th century.

39 RCAHMS: Wigtownshire, No. 419; DGNHAS III., xxviii., 92-5.
40 RCAHMS: Wigtownshire, No. 420.

The 13th century saw the gradual enlargement of the parish churches. The later Middle Ages with its greater elaboration of ritual called for the extension of the chancel. Both these features are illustrated by the ruined church of Buittle[41] (fig. 5). The nave, which has been much altered in later times, nevertheless preserves its original plan and some of the original detail. It is proportionately longer than at Cruggleton and dates from the 13th century. The added chancel is wider than the nave and dates from the 14th century. Though the detail would suggest a rather earlier date, it is possible that the addition dates from about 1381, when the church was given to Sweetheart Abbey.

I have been asked to indicate the directions in which the Society could most usefully contribute to a wider knowledge of the medieval archæology of the south-west. It will be apparent from what has gone before that our knowledge is more extensive in respect of the monastic remains of the full Middle Ages. Soulseat is the only important site fully available that has not yet been explored. Here the recovery of the plan and building history would require an extensive outlay, including provision for the preservation of the exposed walls. A more urgent and more fruitful field is the search for loose fragments of the parish churches, like those to which I referred at Mochrum. It is the Romanesque fragments that are important as the discovery of pieces of 12th century decoration connected with the site of a parish church establishes the date at which the building was erected. An extensive corpus of these dates would show the gradual establishment of the parochial system in the three counties and conversely date the decline of the old monastic organisation. The location of the new, non-monastic, churches should also throw some light on the feudalisation of the region and its secular organisation during the two centuries preceding the Edwardian wars. It would seem that parish and manor are often linked. In

41 RCAHMS: Stewartry of Kirkcudbright, No. 73.

a few cases it should be possible, using all available methods, to recover a large part of the medieval manorial layout surrounding the parish church. An example is on the east side of the estuary of the Dee. Here the ruined church of Dunrod can be seen in the middle of an extensive layout of ridge and furrow, representing the agricultural arrangements of the medieval settlement. There may well be others. An unusual example in the uplands was identified and published by Dr Reid and myself at Unthank in Ewesdale.[42] There should be others awaiting detection and careful record. Here is a task calling for full co-operation between historians and archæologists. The work should not be left too long. Upland sites like Ewesdale are probably safe from disturbance, but a few seasons' modern ploughing would destroy most of the evidence on a lowland site like Dunrod. The most difficult problems of all concern the earliest Christian period. Mr Thomas' recent survey and record of the remains on Ardwall Island suggests that more of these may await recognition. The number of " sites " listed in the three inventories of the Royal Commission should be a challenge. Many of these may well prove a disappointment and afford no evidence of antiquity, but it should not be too much to hope that a few will yield something to a careful and meticulous search on the ground, aided in suitable cases by air photography.

NOTES

The following abbreviations are used throughout in the footnotes:

ACAG: Archæological Collections of Ayrshire and Galloway.
DGNHAS: Transactions of the Dumfriesshire and Galloway Natural History and Antiquarian Society.
MoWOG: Ministry of Public Buildings and Works—Official Guide.
RCAHMS: Royal Commission on Ancient and Historical Monuments in Scotland.

42 DGNHAS III., xxxvi., 26-35.

ARTICLE 13

Late-Glacial Deposits Near Lockerbie, Dumfriesshire

By W. W. BISHOP, Ph.D.

INTRODUCTION

Early in 1960, two interesting late Pleistocene deposits near Lockerbie, Dumfriesshire, were brought to my notice by Mr Robert Little of East Hayrigg, Lockerbie. I am grateful to Mr Little for his assistance in surveying the sites and for the wealth of local knowledge which he placed at my disposal. Also, I acknowledge my debt to the members of the Lockerbie Extra-Mural Class of Glasgow University, whose enthusiasm for investigations in their local area led them to help in many different ways.

The valleys of the River Annan, Water of Ae, the Kinnel and Dryfe Waters, and the Water-of-Milk, within a radius of 5 miles of the centre of Lockerbie (figure 1), exhibit a surface morphology dominated by depositional features characteristic of dwindling valley glaciers. The extent to which these landforms have been modified or eliminated by post-glacial river and stream action depends upon their situation relative to the rivers mentioned above.

Excellent artificial sections have been opened recently in both glacial, outwash and later fluviatile deposits in cuttings and gravel pits associated with the re-alignment of the A.74 between Beattock and Ecclefechan. A number of natural exposures also occur and serve to supplement the morphological evidence.

CLEUCHSIDE BURN

One interesting temporary section was exposed on 1st June, 1960, on the line of the A.74, near Cleuchside (5.35.159787), 3 miles south-south-east of Lockerbie.

A variable thickness of silts, peaty silts and peat, to a maximum depth of 10 feet, had to be removed to provide a firm foundation on stiff sandy glacial till. A north-south

cut was made along the line of the road across a former swampy hollow. The surface morphology suggests that this hollow was elongate in a north-south direction, being rather less than 1000 feet long and some 300 to 400 feet in width with its surface lying at about 300 feet above O.D. The feature is encircled by undulating country underlain by the red-brown sandy till which rises on the east and south to rounded summits approximately 100 feet above the hollow.

Northwards the rim of this shallow basin has been breached by the present Cleuchside Burn. This flows to the north across a low ridge of sandy boulder clay and gravel to join the Water-of-Milk upstream from Gimmenbie-cleuch bridge.

Figure 2 shows a general view, looking north, of an east-west face exposed by the excavations. A slight dip of the deposits to the east, towards the line of the burn, can be seen in the photograph. A detailed section measured on the face illustrated in figure 2, near the deepest part of the excavation, and situated 9 feet north of the Castle Milk water supply pipe, and 27 feet west of the western boundary fence of the new road, was as follows:

	Thickness Feet	Depth Feet
11. Loamy soil	0.5	0.5
10. Reddish sandy gravel	1.2	1.7
9. Dark, humified, matted peat with wood and roots	1.3	3.0
8. Structureless, light brown peat. Some rootlets but essentially a detrital deposit	2.5	5.5
7. Russet to red-brown peaty silts with horizontal bedding visible and root channels. Grades up into 8	0.6	6.1
6. Green to grey-brown peaty silt. Horizontally bedded with some root channels which fade out at depth	0.8	6.9
5. Blue to light grey soft clay with stringers of plant material	1.2	8.1
4. Dark, carbonaceous band at base overlain by banded pink and grey silty clays	0.5	8.6
3. Light grey silts with some pebbles	0.7	9.3
2. Grey varved silts (sandy) and clays	0.7	10.0
1. Thin loose gravel with New Red and Silurian pebbles. Passes down into stiff, sandy red-brown till. Seen to	1.0	11.0

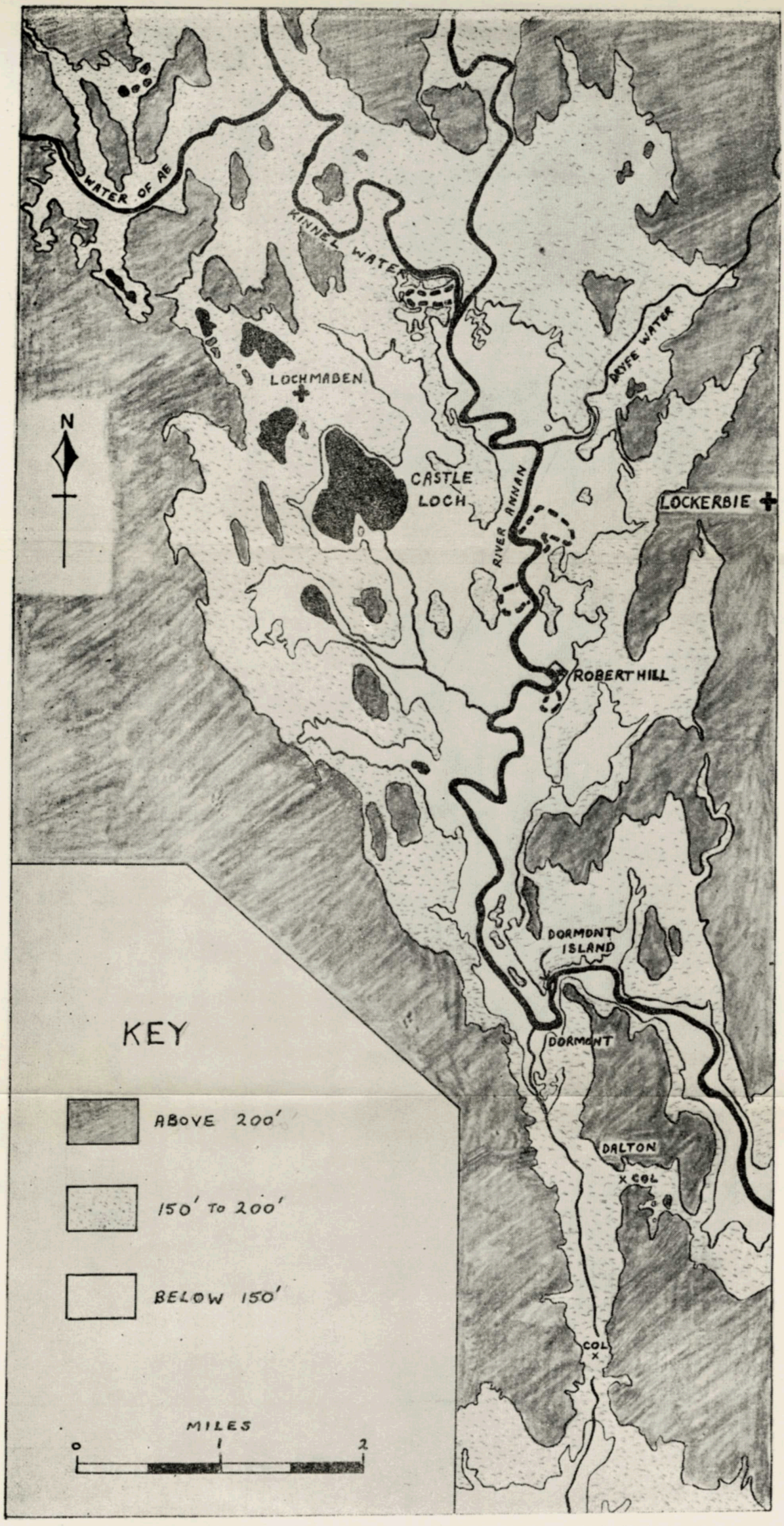


Fig. 1.—Map showing the principal relief features of the Annan Valley in the Lockerbie-Lochmaben area and the probable extent of Late-glacial Loch Maben as defined approximately by the present 150 foot contour.

The hollow almost certainly dates from the final melting of a tongue of valley ice in this area and may possibly represent a large kettle hole. The varved sediments in the lowest part of the hollow resting on the gravelly surface of the sandy boulder clay are the first of a series of Late-glacial deposits to be laid in the hollow under standing water when the area was still under a largely glacial climatic regime. The infilling of the small lake by successively more peaty, horizontally bedded sediments seems likely to span at least the whole Late-glacial period, although this requires to be substantiated by analysis of the pollen content. The natural depositional and vegetation sequence ended with the virtual elimination of the hollow and the formation of the matted, humified peat containing birch wood.

However, the occurrence of from 1.2 to 2.0 feet of reddish sandy gravel which has a clayey matrix, above the dark matted peat in all the localities investigated, including the full length of the road cut and the burn section, provides a sharp contrast to the peaty sequence and suggests a marked change in conditions. The lithology and general appearance of the deposit would seem to argue derivation under the action of solifluction from the surrounding sandy boulder clay slopes. For such a deposit to move over the almost flat surface of the hollow to seal in the peaty deposits would require permafrost conditions. These might have occurred during the post-Allerod cold period. This would require the whole 10 feet of deposit in the hollow to have accumulated during the Late-glacial period. The nature of the pollen spectra from the peat sequence should establish whether this was the case.

Another factor to be considered, however, is that the meltwater drainage (and that of the hollow) was initially to the south through the col at 310-320 feet O.D., between Cowdens and Breckonhill, which is followed by the Glasgow-Carlisle railway. Active downcutting by a tributary of the Water-of-Milk to the north later allowed the Cleuchside

Burn to capture and drain the hollow. Thus peat accumulation may have been brought to an end at the close of the Late-glacial or during the Post-glacial period as a result of the establishment of the lower local base level. In this case the movement of sandy gravel over the surface of the hollow may be the result of agricultural activity on the surrounding slopes initiating mass movement of weathered and eluviated till. This sealing-in could also have been assisted by human activities in reclaiming the "moss" area for cultivation.

ROBERTHILL—RIVER ANNAN

The investigation of this site near Roberthill Farm (5.35.110797, figure 1) was initially carried out in May, 1960, as a rescue operation. A series of sections was measured of natural exposures occurring along the east bank of the River Annan. During mid-summer of 1960, the exposures in question were covered with large New Red Sandstone blocks to try to prevent the rapid undermining of the bank which was taking place.

The natural exposures were obscured for some 18 months during which time eight auger holes were bored to supplement the evidence already obtained. Floods early in 1962 resulted in the removal of some of the protective blocks and a little natural exposure was visible again during the summer of 1962.

The deposits: The feature which attracted the attention of Mr Little was an arched structure or antiform in parallel bedded grey clays and silts (figure 3). These deposits include one major peaty horizon approximately one foot in thickness while several of the bedding planes contain thin lamellæ of detrital vegetable material. The grey clays and peaty horizons prove extremely resistant to river erosion when they are below water level and form resistant clay banks or shoals stretching well into the river. However, the same deposits are extremely susceptible to erosion in large slumped blocks when undercutting of exposed banks occurs.

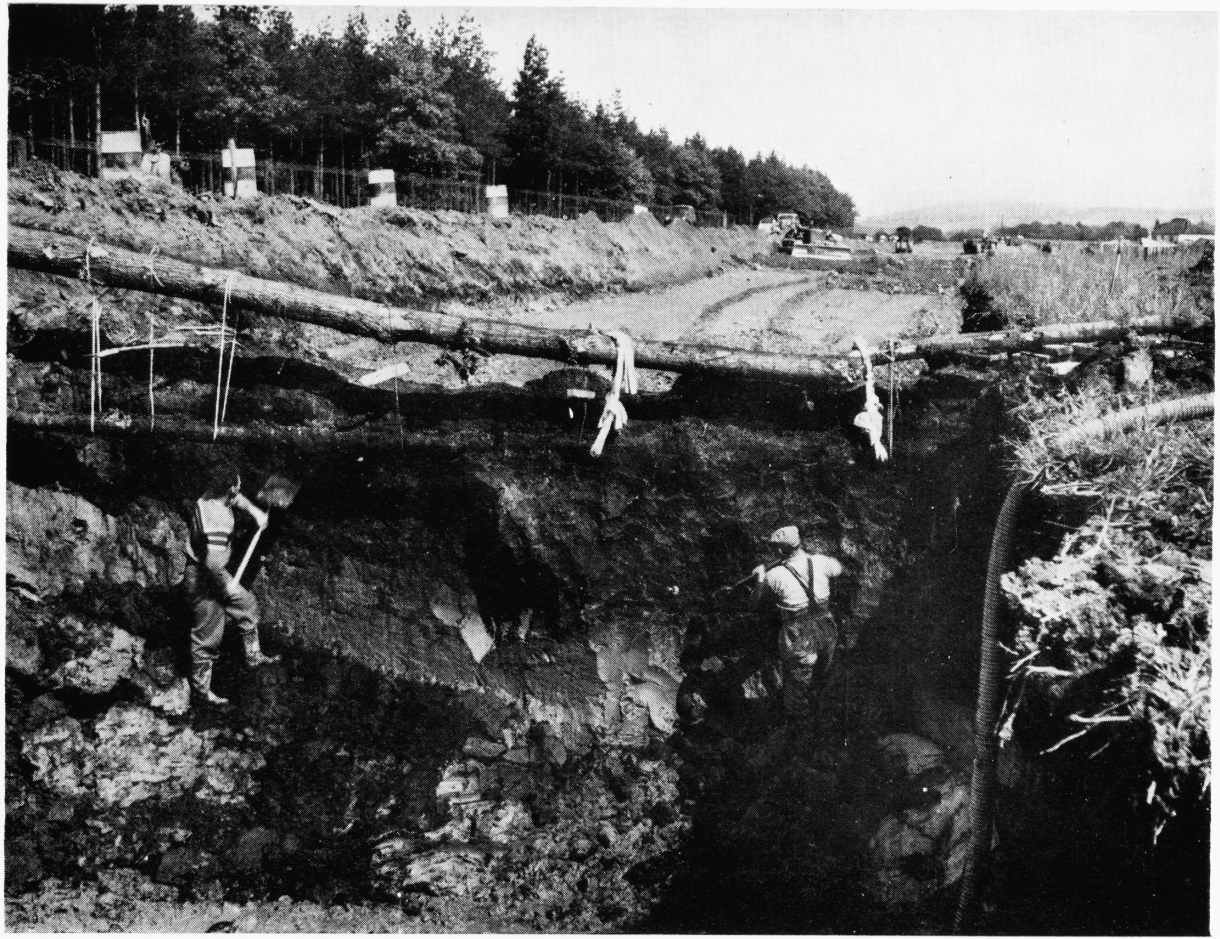


Fig. 2—View looking north of the face exposed in the Cleuchside Excavations. The bottom of the hole is in Boulder clay and the junction between lighter grey silts and overlying darker peaty silts grading up into peat can be seen dipping towards the right.

A measured section through the crest of the antiform (figure 4, Locality 4) gave the following sequence:

	Thickness Feet	Depth Feet	O.D. Height
		0	139.0
10. Alluvium	2.1		
		2.1	136.9
9. Clean, false bedded sands with limonitic concretions at base	1.3		
		3.4	135.6
8. Light grey, gritty clay. Resistant to erosion (SPECIMEN G.10)	0.5		
		3.9	135.1
7. Alternating fine sands and silts with plant material	1.1		
		5.0	134.0
6. Dark detrital peat horizon divided into Upper (SPECIMEN G.8) and Lower horizons (SPECIMEN G.7) by a 0.1 foot band of more sandy peat. Wood for C.14 dating	0.7		
		5.7	133.3
5. Grey silty fine sand which grades up into 6	0.2		
		5.9	133.1
4. Dark brown sand with stringers of vegetable matter and a thin plant horizon 0.2 ft. from top of bed (SPECIMEN G.5)	1.0		
		6.9	132.1
3. Grey-brown fine sand with vegetable matter	0.8		
		7.7	131.3
2. Grey silty sand with pebbles. Irregular base.	0.7 (+ −)		
		8.4	130.6
1. Clean medium sandy gravel containing much New Red Sandstone and Silurian material. Unconsolidated and buff in colour owing to limonite. Seen to	1.2		
		9.6	129.4

SPECIMENS G5, G7, G8 and G10 refer to samples submitted to Mr N. Moar of the Botany School, Cambridge

University. The results of Mr Moar's pollen analyses are described on p. 133 of this Journal.

The succession of deposits at locality 4 was repeated with remarkable constancy of thickness and lithology in sections exposed for some 100 feet in the downstream direction (figure 4, Localities 5, 6 and 7) and a similar distance upstream (localities 1, 2 and 3). In moving away from the crest of the arch towards either the north-west or south-east, the sequence of grey clays and silts with peat (beds 2 to 8, Locality 4) was found to be overlain by a progressively thicker series of clean pinkish unconsolidated sands, of which bed 9 of Locality 4 seemed to represent the basal member.

The sands, which had a minimum observed thickness of 8 feet (locality 1) contrasted in lithology with the grey clays and sands but appeared to overlie them with only slight local disconformity. The bulk of the sand sequence had been eroded off the crest of the arch during the development of the present flood plain of the River Annan. Thus the 1.3 feet of sand recorded at Locality 4 is succeeded by "recent" alluvium.

The section across the arch as originally exposed in the 12 feet high banks of the River Annan is illustrated in figure 5. The section has been extended upstream towards the north-west by evidence from holes bored with a 4 in. bucket auger.

At points 12 and 13 the holes had to be abandoned without reaching the characteristic grey clays and silts, *owing to the amount of water and sand inflow from the* pink clean sands as river level was approached. A similar situation was encountered in a hole at Locality 8 (figure 4) situated to the south-east of the crest of the antiform and 100 feet from the river bank and also at hole No. 11. At No. 9, the grey clays and silts and the main peat horizon were located at depths equivalent to those suggested by the exposures in the adjacent river bank. Hole No. 10 was sunk on the presumed line of the axis of the arch

structure. At a depth of 11 feet below the flood plain the hole had to be abandoned in grey slightly clayey sands owing to the constant inflow of water and sediment. Other holes in this vicinity failed to reach any greater depth because of mass movement along the surface of the water table, at a height of 2-3 feet above river level.

As only clayey sands were reached at this depth it must be assumed that the peat horizon may have been removed by erosion. However, it seems more likely that the arch seen in section in the bank and which strikes into the river in a south-westerly direction is dome-like in plan, at least at the north-eastern end of its axis. Thus the structure fades out or pitches to the north-east so that the peat band is at or below river level near locality 10. On this interpretation, the borehole would have ended just at the top of the grey clay and silt sequence, near its junction with the overlying sands, and water flow would be likely to be at a maximum.

Upstream of localities 12-13, the grey sediments are again encountered, emerging from below river level at locality 14 where they are identical in thickness and lithology to those seen in the main arch. At 14 the dip of sediments was downstream and again a clay bank feature strikes south-west into the river.

It thus appears that the sediments re-appear to the north-west of a basin or synform with its axis possibly in the vicinity of the small tributary ditch (figure 4). The presence of a second arch, although in this case more completely breached by the river and much obscured by slumping of the river bank, is supported by the fact that at locality 15, a further 100 feet to the north-west, the grey sediments and peat were again located dipping upstream. A bore-hole confirmed the similarity of the sequence and a resistant "clay bank" again strikes into the river.

The steep step of the clay bank in this case faces downstream by contrast with that at locality 14 and thus as in the case of the main arch the whole core of the antiform has been removed by undermining of the clays fol-

lowing removal of the unconsolidated basal gravel. The circulation of the river in these deep clay rimmed "pot holes" is shown in figure 4.

The general relationships of the beds are shown in figure 5 and the various outcrops are tentatively joined into a continuous structure. Unfortunately, in the intervening areas the outcrop is lost because of river erosion or recent bank slumping. Proving the structure further at depth was impossible because of the water problems encountered in augering. Further information might possibly be obtained during very dry periods when the River Annan and its adjacent water table are at an absolute minimum.

The area was searched for further occurrences of these easily recognisable deposits and a small isolated outcrop of clay which contains fossil wood was located at river level (figure 4) some 220 feet upstream from locality 15, which appears to be the last appearance of the beds towards the north-west. In addition, some half-a-mile downstream from Roberthill, identical grey clays occur just below river level and suggest a more widespread distribution of the deposits beneath the spread of recent river gravel and alluvium. The problem is complicated by the meandering course of the River Annan which has left many cut-off loops and by the fact that extensive flooding still occurs annually up to heights of approximately 142 feet O.D.

The deposits seem best explained in terms of a glacial meltwater gravel (Bed 1 of main section) directly overlain by still-water deposits of lacustrine origin which vary from fine sand to silt in grade, are predominantly grey in colour and contain variable amounts of vegetable matter (Beds 2 to 8).

Mr Moar's pollen spectra of samples G6, G7, G8 and G10 which span the main sequence of the lacustrine deposits are discussed by him on p. 133. The pollens indicate a typical Late-glacial flora and suggest a peri-glacial climate. A piece of wood from the lower part of the main dark detrital peat horizon (Bed 6) was kindly dated by Dr Eric Willis at the Cambridge University Radiocarbon

Fig. 3—General view of the east bank of the River Annan at Roberthill, showing members of the Lockerbie Extra-Mural class going to examine the arch structure. The flood plain alluvium truncating the crest of the structure can be seen, together with the flood dykes in the background. The dark band within the flexured sediments is the main peaty horizon.

Dating Laboratory. The sample (Q-643) yielded an age of 12.940+ years.[1] Unless the wood is derived this would suggest that the deposits fall largely within Pollen Zone 1 of the British Late-glacial sequence. This is in keeping with the interpretation that the lowest still-water deposits rest directly upon glacial gravel.

It remains only to discuss the origin of the arch structure but this is best understood after the general morphological setting of Roberthill has been described.

Morphological Evidence: The river Annan flows southwards from near Moffat broadly following a narrow outcrop of New-Red Sandstone. The New-Red outcrop widens in the vicinity of Lockerbie to become a broad basin bordered by subdued remnants of the mountains composed of Silurian strata, which originally dominated the intermontane desert basins of Permian times. The soft Permian sandstones have suffered considerable differential erosion by valley glaciers compared with other strata and this has resulted in a subdued "Permian basin" being re-established at the present time. This glacial scouring of the Permian rocks has resulted in the River Annan having only a very gentle gradient for some 6 miles from north-east of Lochmaben to Dormont (figure 1).

The River Annan receives at the north end of this reach the waters of several strong-flowing tributaries in the form of the Water-of-Ae and the Kinnel and Dryfe waters. The influx of the combined waters of these rivers together with the gentle gradient gives rise to extensive annual flooding. The 150′ contour line on figure 1 broadly delimits the flood-plain in this area where the Permian and glacial deposits are largely obscured beneath an extensive spread of alluvium.

A further factor contributing to the flooding is that although a broad dry valley continues the north-south line

[1] I am indebted to Professor H. Godwin and Dr Eric Willis of Cambridge University for establishing a date for the wood and to Mr Moar for undertaking the pollen analyses. Professor Godwin also kindly discussed some of the problems involved and made helpful suggestions.

of the River Annan through Dalton (figure 1), this appears to have originated from the action of glacial meltwater. It was left as an abandoned spillway as the result of capture of the Annan drainage by a stream actively cutting back towards the north-west which now forms the lower Annan. The elbow of capture near Dormont is not particularly acute but it marks a distinct change in the direction of flow of the river while Dormont Island is the site of a major knick point. Downstream from the island the fast flowing river with rapids contrasts sharply with the meandering course bordered by frequent cut-off loops and ox-bow lakes, which is typical of the river for 6 miles north of the island.

The capture of the original north-south proto-Annan by the fast flowing and virile " lower " Annan is probably partly the result of more rapid headward erosion from the area of New-Red sediments near the town of Annan, along the outcrop of the Carboniferous strata. The rocks along this line proved less resistant than the Silurian rocks which underlie the Dalton area.

The steeply dipping Silurian flags which outcrop along the course of the Annan near Dormont Island are a further factor contributing to the flooding of the area to the north The rocks form a resistant lip or rock bar across which the Annan flows in a series of rapids. The problem of flooding was somewhat improved in 1932 when the channel at this point was made several feet deeper by blasting an artificial cut. The Annan still floods annually up to heights of 142′ - 143′ O.D. near Roberthill although it is prevented from forming an extensive lake by the presence of flood dykes.

There can be no doubt that during the Late-glacial period, immediately following the dwindling of the ice lobe which continued to occupy this part of the Annan valley after the main ice sheets waned, a considerable lake must have existed in the area under consideration. Its water level was rather less than 200′ O.D. as the col in the Dalton dry valley to the south lies a little below this height. It

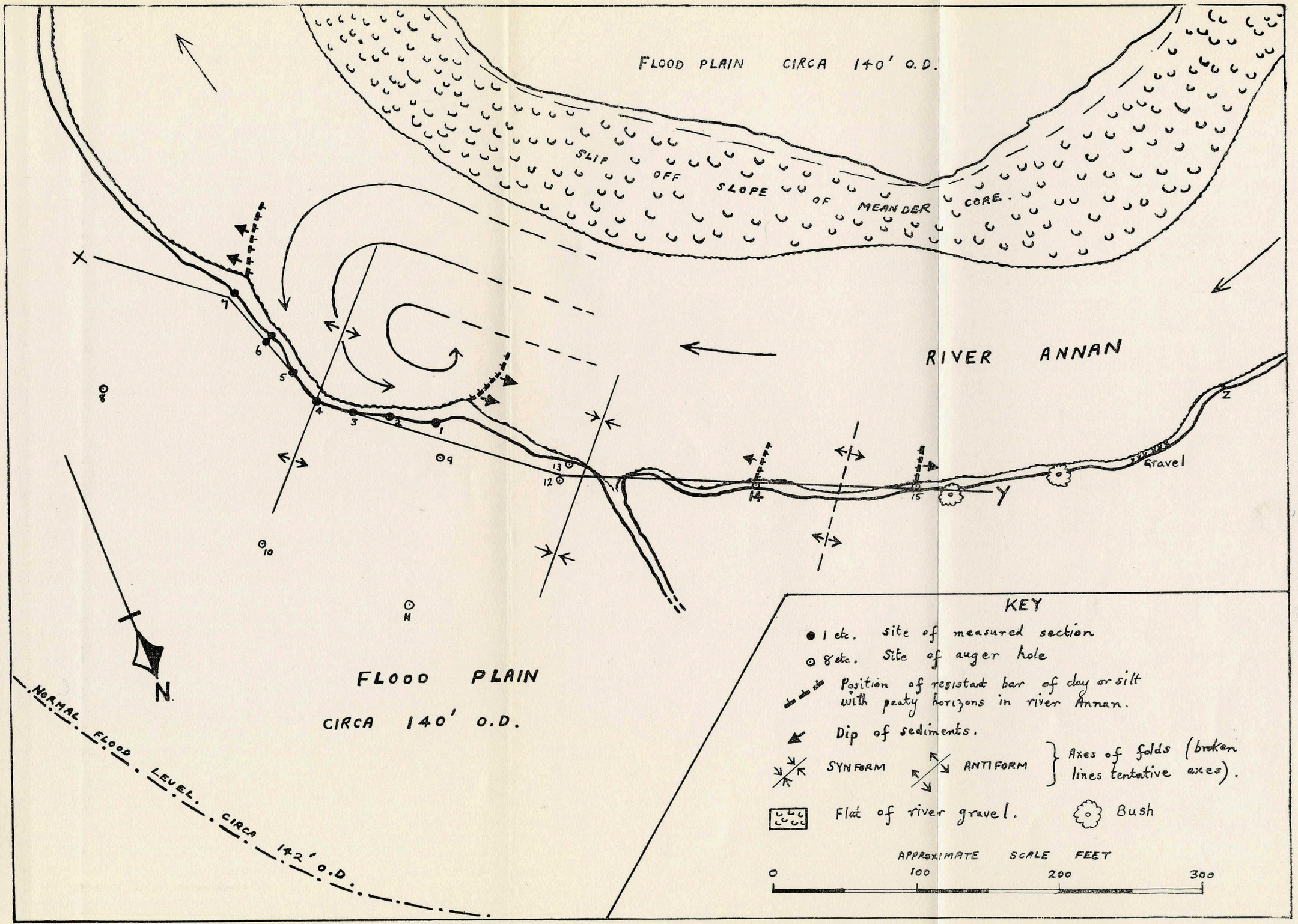


Fig. 4.—Sketch Map showing sections investigated and location of auger holes on the north bank of the River Annan, Roberthill Farm, near Lockerbie.

seems probable that the initial surface of the lake lay at about 175′ or 180′ O.D. This level was then lowered by gradual erosion of the Dormont outlet to approximately 150′ O.D. The 150′ contour approaches very near to the level of the present river on both sides of the Annan near Dormont Island (figure 1). It appears that by the time downcutting had reached 150′ O.D. at Dormont the original lake had virtually been eliminated by the lacustrine sedimentation combined with erosion of the outlet. The river Annan at that time commenced its meandering course across the former lake bed. In places it eroded the still-water deposits and during times of flood deposited alluvium over a wide flood plain. If unmodified by human activity the extent of the flood plain would be very similar to that of the former lake.

The lochs in the vicinity of Lochmaben, namely Castle Loch, Hightae, Mill Loch and Kirk Loch, which lie a little above or below the 150 foot contour, represent the dismembered remnants of a once continuous sheet of water. Their distribution was controlled by the location of deep hollows in the original lake floor. In view of this and as much of the lake must have fallen within the present parish of Lochmaben, a suitable name for it would seem to be Late-glacial Loch Maben.

The lake deposits described above are ascribed to this lake and it seems probable that augering would reveal extensive lacustrine sediments containing Late-glacial pollen, concealed beneath much of the alluvium along this stretch of the river Annan.

Mounds of glacial gravel and till, which must have stood as islands in the Late-glacial lake, are well seen in the area between the lochs near Lochmaben. They have a characteristic north-north-west to south-south-east trend which parallels the feature delimiting the Silurian hills to the west of the Permian basin. This alignment would suggest that ice movement from the area of the Kirkmichael Fells, between the valleys of the Water-of-Ae and the Kinnel Water was more significant, at least towards

the end of glaciation in this area, than was movement along the main north-south Annan valley. However, the north-south alignment of the Dalton dry valley and the similar direction of moulding of the glacial topography in this more southerly area suggest that here true "Annan ice" had a more pronounced effect.

Origin of the Arched Structures:

The two possibilities for the origin of the structures shown in figures 3 and 5 and described above are that they are either original depositional features reflecting undulations of the lake floor or that they result from post-depositional deformation. The first seems improbable, as the thicknesses of individual beds, including the detrital peat horizon, are remarkably consistent whether they are measured on the crests of the arches or low down on the flanks. The dips of the limbs of the arch are sufficiently steep to anticipate that if such undulations were present during the original deposition some lenses would be visible as the beds thickened into hollows and thinned across the crests of the ridges.

In addition, it has been noted that the trend of all the glacial depositional features which can be seen above the alluvial flat is between north-north-west to south-south-east, and north-south. The alignment of the Robert-hill features is by contrast south west-north east which suggests that the structures do not merely mirror existing ridges and hollows on the surface of the glacial deposits. If it is accepted that the sediments were probably formed as an almost flat-lying series of beds, then some deforming mechanism has to be invoked.

Superficial valley folds have been described affecting both pre-glacial and glacial deposits. Some of the deformation in these cases was undoubtedly pre-glacial in age but folds described from near Barnsley in Yorkshire (Shotton & Wilcockson 1951) affected both coal measures and glacial deposits and the movement was referred to a time immediately following glaciation.

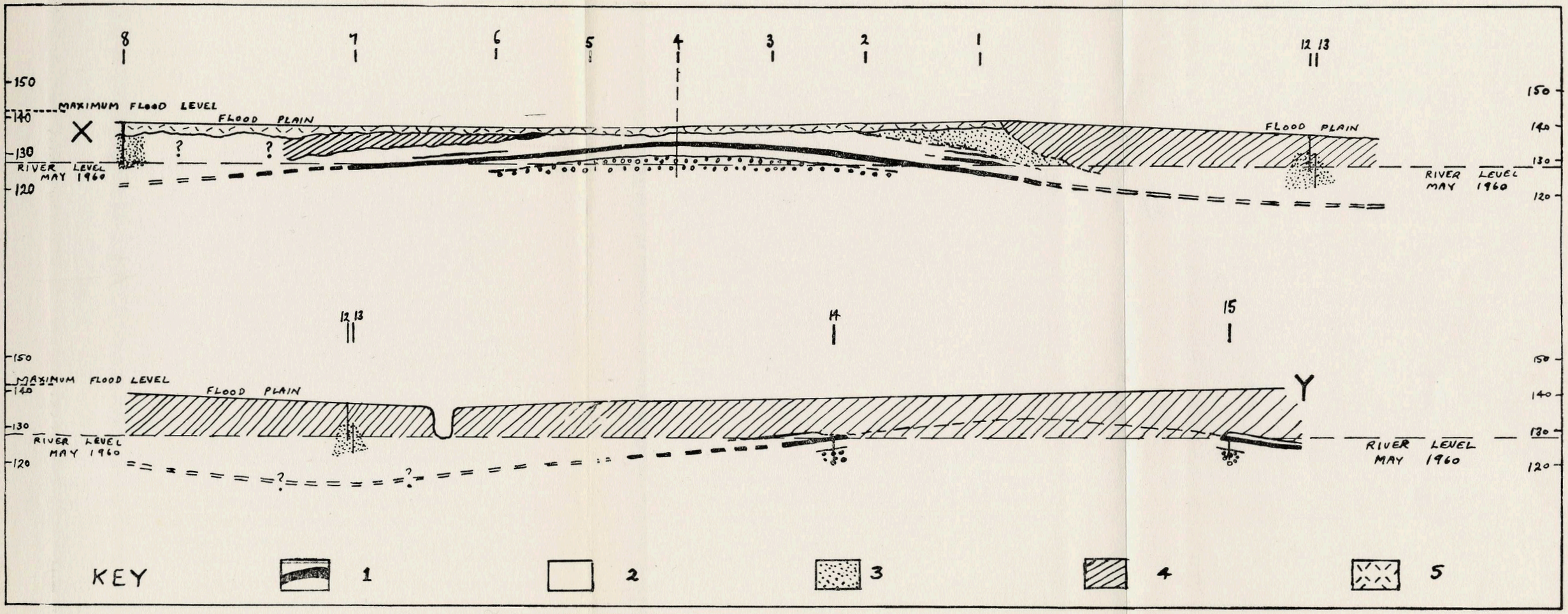


Fig. 5.—Section of the deposits on the north bank of the River Annan (line X - Y, Fig. 4), Roberthill Farm, near Lockerbie. Section drawn to natural scale with no vertical exaggeration.
1, Peat; 2, Clay; 3, Sand; 4, Areas of no exposure, slipped masses, etc.; 5, River alluvium.

Domes, folds and other structures which are the result of deformation under peri-glacial, repeated freeze-thaw conditions are well known but in the majority of these cryoturbation or festooning structures are also seen. In the domes and folds produced under peri-glacial conditions, the crest of the structure is usually broken and the beds are severely disturbed.

At Roberthill, although a peri-glacial climate existed at the time of deposition of the beds from the pollen evidence, there is absolutely no evidence of cryoturbation and the bedding is undisturbed. This would seem to suggest that the beds were protected by an overlying water layer. This must have been deep enough to allow floating ice to form above some depth of water which did not reach freezing point. The deposits are thus free from deformation as a result of the growth of ground ice masses.

Other mechanisms which may cause deformation of unconsolidated sediments have been summarised as follows (McKee et al 1962):

(1) gravity slumping,
(2) drag—as from an overriding force,
(3) overloading from above or from one side,
(4) modification by boring organisms, root growth or gas bubbles.

Of these (1) and (4) can be ruled out at Roberthill but one possible solution would involve a combination of (2) and (3).

In searching for some source of drag, push or even for a load to deform these deposits it is tempting to invoke the work of glacier ice. It seems possible to the writer that in the case of the Roberthill structures a local glacial re-advance could satisfactorily account for all the pieces of evidence at present available. As far as can be ascertained all the deposits were probably laid down within Pollen Zone I. However, if the date of almost 11,000 B.C (12,940 B.P.) for wood occurring about in the middle of the main sequence is accepted as dating the deposits themselves (that is providing that the wood is not derived),

then the Roberthill sequence in beds 2 to 8 (pollen samples G5, G7, G8 and G10) would be broadly equivalent to the Bolling oscillation of continental Europe. This mild interval was established on the basis of pollen evidence from Denmark and recent radiocarbon dates show that its duration was probably about 11,500 B.C. (13,500 B.P.) to 10,500 B.C. (12,500 B.P.) (Movius 1960). This warmer phase occurs towards the middle of Pollen Zone I. and serves to divide it into three subzones with a climatic sequence which runs from cold to milder to cold. The Roberthill date would seem to be broadly equivalent with the middle of this Bolling oscillation which had a duration of approximately 1000 years. Thus the radiocarbon evidence might suggest a broad equivalence of the Roberthill lacustrine deposits with the mild Bolling period. The pollen sequence established by Mr Moar does not appear in conflict with this.

In continental Europe the third (or older Dryas) division of Pollen Zone I. (Zone IC.) is dated as of approximately 500 years duration from 10,500 to 10,000 years B.C., when it was succeeded by the Allerod warm oscillation (Pollen Zone II.) (Movius 1960).

Although the link with the European botanical and inferred climatic evidence is a tenuous one it does suggest a possible explanation for the Roberthill - Lochmaben evidence. The "cold snap" following the Bolling mild conditions may have allowed a local tongue of ice to advance into the Lochmaben area from the Kirkmichael Fells. This same period on the continent saw the establishment of moraines in southern and central Sweden and near Leningrad.

Such an advance would account for the alignment of the recent looking moundy topography in the Lochmaben area. The deep hollows of Kirk Loch, Hightae Mill Loch, etc., would also be explained by such a local advance giving rise to large kettle holes as the dwindling ice masses sank while melting, into the unconsolidated still-water clays and silts over which the snout of the re-advancing glacier had

moved. Finally a push as a result of advance from north-north-west or merely the effect of the weight of the ice mass as it advanced over the sediments of Late-glacial Loch Maben, could account for the small folds, striking south west-north east in the Roberthill area.

CONCLUSION: A series of deposits formed in Late-glacial Loch Maben contain pollen which suggests a Zone I. peri-glacial climate. The middle of the lacustrine series has yielded a radiocarbon date of almost 11,000 B.C. The deposits thus may be roughly equivalent to the Bolling oscillation of the European sequence.

It is suggested that Late-glacial Loch Maben ceased to exist following downcutting of the outlet near Dormont Island and since that time migration of the meandering course of the river Annan has resulted in the deposition of alluvium over most of the remaining lake deposits. At Roberthill excellent exposures of the lacustrine sediments are seen owing to the development of local fold structures. The fold crests have been truncated and are overlain by alluvium.

It is tentatively suggested that the folds and the lochs still existing in the Lochmaben area may be the result of a local ice re-advance towards the end of Pollen Zone I. and prior to the Allerod warm phase. The maps depicting glacial retreat stages in Scotland have been of necessity extremely generalised and much more detailed mapping in relation to accurate dating is required before a firm retreat sequence is established.

It is generally accepted that the "Highland Re-advance" is to be correlated with Pollen Zone III. and is later than the Allerod warm oscillation. At the time of this temporary halt in ice retreat there were still small cwm glaciers remaining in North Wales and the Lake District (Godwin 1960). Thus during the earlier cold phase represented by the end of Pollen Zone I. it seems highly probable that small valley glaciers would still exist in localities favourable for ice accumulation within the Southern Uplands. The Perth and Aberdeen re-advances

are placed within Zone I. by Donner (1957, 1959) and both of these extended some distance into lowland areas. The distribution of remnant ice mases in the Southern Uplands during the Late-glacial period requires further investigation.

This paper is submitted in the hope that other workers will take up the cudgels, or auger rods, to prove the truth or otherwise of the above hypothesis by further investigation. But for returning to continue with East African Pleistocene studies, the writer had planned to pursue some aspects of the work himself.

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Pollen Analysis of Four Samples from the River Annan, Dumfriesshire

By N. T. MOAR.

Four samples, G5, G7, G8, and G10, collected by Dr W. W. Bishop from an exposed section in the bank of the River Annan, at Roberthill Farm, Dumfriesshire (S35, 110794) were submitted for pollen analysis (Table I.). The samples, with the exception of the uppermost, were from thin peat layers that lie in the middle of a series of water-laid sands, silts and clays several feet in thickness and now rather strongly arched. The lowermost sample, G5, was taken from an organic layer about $\frac{1}{8}$ in. thick overlying fine sand and underlying some $2\frac{1}{2}$ in. of grey, silty fine sand. A narrow layer of sandy peat immediately above the silty, fine sand yielded sample G7, and G8 was collected from a similar peaty layer separated from G7 by more sandy-silty peat. The uppermost sample, G10, was taken from light grey clay 13 in. above sample G8.

The pollen analyses show low values of tree pollen and an assemblage of the pollen of herbaceous and aquatic types of plants (Table I.). Birch (*Betula*) pollen, which is relatively abundant appears on analysis of the ratio of pore-depth to grain-diameter to resemble that of *Betula nana* L. (Walker, 1955), so that the presence of tree birches cannot be inferred. Whereas the occasional grains of pine (*Pinus*) and elm (*Ulmus*) pollen may have been transported from a distance by wind currents or derived from older sediments, there is no reason to doubt that the pollen of willow (*Salix*), juniper (*Juniperus*) and sea buckthorn (*Hippophæ*) was produced locally.

The picture that is presented by the pollen spectrum is therefore that of a landscape of open character, with dwarf birch, willow and juniper stands, and communities intolerant to shading and typical of soils with fairly high base status. Such vegetation is characteristic of the peri-

glacial conditions that are found throughout Britain in the Late-glacial period (Godwin, 1960) and it is to be noted that sea buckthorn (*Hippophæ*), thrift (*Armeria*), rockrose (*Helianthemum*) meadow rue (*Thalictrum*) and nettle (*Urtica*) are habitually found in deposits of this time.

The low values for tree pollen are in accord with analyses from known Scottish Late-glacial sites. The presence of mildly thermophilous plants together with the occurrence of crowberry (*Empetrum nigrum*) and shoreweed (*Littorella lacustris*), both plants with oceanic affinities, is not out of accord with British records for this period, and although the pollen spectrum from each of the four samples may be compared with pollen diagrams of known Allerod sites in Scotland, the pollen analyses from Roberthill do not necessarily indicate an Allerod age for the site. The radiocarbon date of 12940 years B.P. (Q-643) from this site suggests deposition at a time somewhat earlier than the Allerod interstadial itself and it is entirely possible that deposits of the kind described here should have been formed within Zone 1 (Older Dryas time).

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TABLE I.

Results of the pollen analysis of four samples from the bank of the River Annan, Roberthill Farm, Dumfriesshire. The results are presented as percentages of total pollen.

Plants Recorded	G5	G7	G8	G10
Betula	19	14	24	6
Pinus	tr	1	tr	3
Populus	tr	1	1	
Ulmus	tr			
Hippophæ			tr	
Juniperus	10	11	7	5
Salix	1	2	3	5
Armeria A	x			
Armeria B	tr			
Artemisia	2	4	2	
Caryophyllaceæ			tr	3
Chenopodiaceæ	x		x	
Compositæ	3	1	1	2
Cruciferæ	x			
Cyperaceæ	6	12	11	34
Empetrum	2	3	3	1
Epilobium	1			1
Ericaceæ	tr	tr		
Filipendula	1	2	9	2
Gramineæ	43	39	28	44
Helianthemum		tr	tr	1
Leguminosæ			tr	1
Lotus of corniculatus	tr			
Littorella		x	tr	
Potentilla	tr	tr	tr	
Ranunculaceæ	tr	tr	x	
Rubiaceæ	1	1	1	
Rumex	5	4	4	2
Thalictrum	2	1	1	2
Umbelliferæ	1	1	1	
Urtica	1			
Valeriana			x	
Myriophyllum alterniflorum	4	3	2	23
M. spicatum	tr	1	tr	
Potamogeton	3	1	2	1
Sparganium		tr	tr	
Equisetum	x		x	1
Filicales			1	1
Polypodium				2
Selaginella				x
Sphagnum			1	

tr=less than one per cent.
x=recorded after the detailed pollen count was completed.

ARTICLE 14

The Customs Accounts Of Kirkcudbright, Wigtown, and Dumfries, 1434-1560

By Dr ATHOL MURRAY.

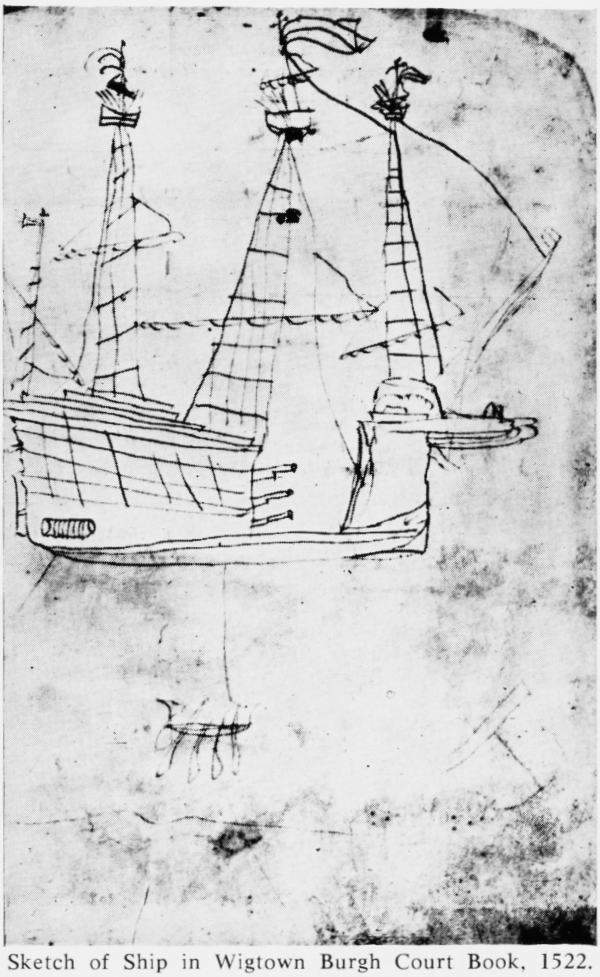
Recent volumes of these Transactions have witnessed a growing interest in the history of the trade and shipping of Dumfriesshire and Galloway, but so far local historians have neglected the earliest period for which there is adequate source material, namely the fifteenth and early sixteenth century. This material is to be found mainly in the printed volumes of *Exchequer Rolls*.[1]

Accounts were rendered annually in Exchequer of the collection of duties on foreign trade or "great customs," which were annexed to the Crown by statutes of 1424 and 1455.[2] The royal officers, who collected and accounted for this revenue, were called custumars, one or more custumars being appointed for each burgh, where foreign trade was carried on. Not all such burghs were actually on the coast, Edinburgh, Haddington and Linlithgow having dependent seaports. Where the amount of trade was small, for instance in the north of Scotland, one custumar sufficed for several burghs. A custumar's jurisdiction was not confined to the burgh itself, each port having its "precinct," extending over the surrounding district. One such comprised "the burrowis of Wigtoun and Quhithirne and all the boundis and fredomes therof and all uthiris boundis betuix Glennop and the watter of Cre and the west sey cost of the occeane sey and Lochryane and the Rynnis of Galloway."[3] Between 1476 and 1503, and for briefer periods thereafter, Wigtown was under the custumar of Kirkcudbright, whose jurisdiction normally extended over the whole stewartry. To the east, he appears to have exercised some

1 The chapter on the port in Robison's *Kirkcudbright* does not make effective use of the material available in the *Exchequer Rolls*. On the other hand, the present study owes a great deal to Dr Reid's *Wigtownshire Charters*.

2 *Acts of Parliament of Scotland* (*APS*), ii., 4, 42.

3 *Register of the Privy Seal* (*RSS*), ii., No. 1758.



Sketch of Ship in Wigtown Burgh Court Book, 1522.

ill-defined authority over the Nith, which was disputed by the burgh of Dumfries.[4] Until 1577 custumars of Dumfries were appointed very intermittently.

The area over which the custumar had jurisdiction normally corresponded to the trading precinct of the burgh in question. Thus, the jurisdiction of the custumar of Wigtown and the trading precinct of the burgh extended over the whole sheriffdom. Within their trading precincts the royal burghs enjoyed exclusive privileges in relation to foreign trade.[5] Also within their precincts they had the right to levy the "small customs" or tolls, which had been granted to them by the Crown as part of their common good. The hostility of Wigtown towards Whithorn, a rival burgh within its precinct, shows how jealously the royal burghs guarded their tolls and trading privileges. It is important, however, to avoid confusion between the "great customs," forming part of the royal revenues, and the "small customs," collected by the burghs. Despite the burghs' privileges, the regulation of foreign trade formed part of the royal prerogative and the appointment of custumars lay with the King or those to whom he delegated his authority. It was not necessary for the custumar to be a burgess of the burgh where he acted, for between 1455 and 1460 one of the two appointed for Kirkcudbright was Lazarene de Grelis, otherwise called Lazarene de Janua (Genoa), a Lombard merchant.[6] Despite the small remuneration attached to it, the office was clearly attractive to persons of consequence. From 1473 to 1477, John, Lord Carlyle, was custumar of Kirkcudbright, being succeeded by his son, Robert Carlyle, who held the post until 1487. Thereafter, between 1487 and 1509, and again between 1526 and 1582, it was in the hands of the lairds of Bombie and other members of the Maclellan family.

From 1505 the custumars of both Kirkcudbright and Wigtown were often lessees or tacksmen, who paid a fixed

4 *Transactions*, xxxiii., 133-4.
5 W. Mackay Mackenzie, *The Scottish Burghs*, 66-73.
6 *Exchequer Rolls* (*ER*), vi., 25, 396, 594. His house in Kirkcudbright became crown property on his death (*ER*, vii, 378).

annual sum to the King as tack duty of the customs, retaining all receipts in excess of that amount. Otherwise, until his account had been rendered in Exchequer, a custumar remained personally liable to the King for any customs arising during his period of office. If he died before accounting, the liability was transferred to his heirs or executors. Thus after the death of Mungo Murray of Broughton, his grandson, John Murray, was liable for the customs of Wigtown and Whithorn, pending a final account. On 4th June, 1515, George Murray, brother of the laird of Cockpool, presented a complaint to the Lords of Council on John's behalf, that Patrick Mure, alderman of Wigtown, had intromitted with the customs "contrare justice," although John remained "under daungere of the sammyn." Accordingly in the account rendered a month later John Murray answered for the customs up to 10th April, 1515, and Patrick Mure for those after that date.[7]

The custumars' account resembled others rendered in Exchequer, in that it consisted of two parts, namely charge and discharge. The charge comprised the gross customs arising during the period of account; the discharge allowances given for sums overcharged or payments by the custumar. It is convenient to deal with the discharge at this point. Allowances were given for exempt goods, among these being the King's own goods, which were sold custom free.[8] The King might also remit customs due, either as a mark of favour or as a means of paying his debts. In 1456 allowance was given to the custumars of Kirkcudbright for the duty on some hides and woollen cloth, remitted by the King to John Gitton, Frenchman.[9] In 1475, James III. remitted the custom of his ship to John Carter, a Breton, "for his thankfull services in remaining at the King's command and for the freight of the King's Grace's servants and horses sent to France."[10] Master

7 MS Acta Dominorum Concilii (ADC), xxvii., *f.* 6; *ER*, xiv., 93.
8 *ER*, v., 613; xiv., 93.
9 *ER*, vi., 304.
10 *ER*, viii., 318.

Richard Murheid, James IV.'s Secretary, exported hides and cloth custom free from Kirkcudbright in 1501, the duty, amounting to £7 3s 4d, being allowed to the custumar.[11]

Little need be said of other allowances to the custumars. They received 4d in the £ of the gross receipts as their fee, but tacksmen were not permitted to claim this.[12] From 1458 5 merks out of the annuity of 15 merks granted by James II. to the Friars Minor of Kirkcudbright was payable from the customs. Although the Auditors threatened to stop payment in 1499, "because neither the burgesses of Kirkcudbright nor the Friars Minor showed their infeftment," the annuity continued up to the time of the Reformation.[13] In 1435 the custumars bought 150 "waws" of Spanish iron for the King, of which 120 "waws" were shipped to Dumbarton, Thomas Bullock, skipper, being paid £10 10s for freight, and the other 30 remained in the custumars' hands. They also paid £6 to John Wells, burgess of Perth, for a pipe of wine and delivered £70 19s to the King's coffers. In 1458 they were allowed £6 10s for payment to 11 mariners, who had come to Kirkcudbright in the *Kervel* with the King's artillery and had remained there twenty days, according to a bill produced by Lazarene de Grelis, one of the custumars. An anchor for that ship cost £6 13s 4d, for which the master, Robert Wormate, gave his receipt. £24 7s was spent on provisioning the great ship *Roman,* in which the King's sisters sailed from France to Kirkcudbright, this payment being attested in Exchequer by the bishop of Galloway. Similarly the Secretary acknowledged that the custumars had met the expenses of the Warden and himself, when they were in Kirkcudbright on the King's business. The small balance remaining in the custumars' hands was paid to the Comptroller at the time of accounting.[14]

11 *ER,* xi., 373.
12 *ER,* ii., p. lxxvi.; x., 132.
13 Moir Bryce, *Scottish Grey Friars,* i., 252; *ER,* vi., 396; vii., 431; xi., 218; xviii., 285.
14 *ER,* iv., 606; vi., 396.

These examples will serve to show how the custumars' payments and expenditure were accounted for and authenticated by written receipts or the attestation of the responsible officers of state. After 1470, however, they made very few payments, except those to or on behalf of the Comptroller, who was one of the two chief financial officials of the kingdom. It may be noted, however, that in 1504-1505, on the King's orders, the custumars of Kirkcudbright paid 40 merks in two instalments to William Cunningham in Dumfries, "in compensation for his house, which was destroyed by a sudden fire."[15]

The charge side of the accounts was based on the customs books, presented in Exchequer by the custumars. If no customs had arisen during the year, the custumars' affidavit to that effect was accepted.[16] In 1526, however, William Maclellan, provost and custumar of Kirkcudbright, attempted to evade the normal procedure by swearing that his receipts had amounted to £12. When he repeated this conduct in the following year, the Auditors decreed that he "should bring with him in future the book of the said custom, together with the cocket book, under pain of £10."[17]

The customs book referred to in this order was not that in which the custumar entered particulars of ships and cargoes at the time when duty was paid. Presumably some such record must have been kept, but there are no extant sixteenth century examples for any of the ports of south-west Scotland. Those lodged in Exchequer were normally statements made up by the custumar or his clerk, listing, under each dutiable commodity, the names of merchants exporting particular consignments and the quantity.[18] Thus the Dumfries customs book for 1577-1578 lists nine consignments of wool, varying from 7 to 44 stones. Four consignments belonged to Edward Edgar, two to Thomas

15 *ER*, xii., 269, 368.
16 *ER*, xvii., 391.
17 *ER*, xv., 361.
18 *ER*, Exchequer Customs Books, First series (E.71).

Glassan and the remainder to Adam Gibson, John Johnston and William Edgar, the total being 8 sacks and 19 stones. The book then lists consignments of tar, vinegar, bonnets and other goods.[19] There is a similar book for 1579-1580, but none has survived for either Kirkcudbright or Wigtown.

Had the custumar's book been the sole evidence of the goods customed, it would have been easy to falsify. The Auditors' decree of 1527, however, mentions another book, the cocket book. This was made up by the clerk of cocket of the port in the same form as the customs book. In fact the two would normally be identical, since it was the clerk's duty to act as a check upon the custumar's honesty, and any discrepancy was treated as *prima facie* evidence of fraud on the latter's part. There still remained the danger of collusion between the two officials, but fraudulent conduct was nominally punishable by a draconian penalty of £1 for each penny of unpaid custom.[20]

As lodged in Exchequer, the books were no more than a statement of goods customed, without reference to the sums collected. The Exchequer clerks added up every page and the total for each commodity, on which basis they calculated the gross custom payable. Finally they reckoned up the grand total for the whole customs, and the amount of the custumar's fee, which was proportional. The total payments to the Comptroller *(rotulator)*, were also entered, his receipts having been produced by the custumar.[21] If the account were considered satisfactory by the Auditors, it was ready to be engrossed on the Exchequer rolls.[22] When enrolled it stated only the totals of goods and duties for each type of goods, with, of course, the grand total and the statement of the discharge.

19 Printed in appendix to Edgar's *Introduction to the History of Dumfries*, ed. Reid, pp. 261-70. The total at p. 261 should read "Summa viij sacce xix petre."

20 *APS*, i., 497; *ER*, x., 381, 456; xv., 651; *ADC*, xli., *f*.104.

21 Edgar *loc. cit.* The Exchequer figures can be recognised by the use of Latin wording.

22 *ER*, xvi., 526.

It is, perhaps, surprising to find that, until 1597, imports were allowed to enter Scotland custom free,[23] with the exception of an *ad valorem* duty of 2s 6d in the £ on English goods. This also took the form of a duty of one-eighth in kind of certain commodities.[24] Thus, in 1487, the custumar of Dumbarton accounted for the value of eight bolls and three firlots of wheat, being the custom of a certain quantity brought in by Englishmen and sold within the burgh. In 1504 the custumar of Kirkcudbright charged himself with 12s 1d by the "sale" of one boll of English malt, "sale" in this connection meaning that, instead of payment being made in kind, the value of the malt was accepted in satisfaction of the duty.[25]

Although nearly all goods exported were subject to duty, it is only necessary to notice those which appear in the customs accounts under review. The overseas trade of Galloway was confined to a few staple commodities, principally wool, hides, and woollen cloth.

In the fifteenth century wool formed the principal export for the whole of Scotland, producing in 1471 £1743, or over 75% of the gross customs.[26] Under an Act of 1368 the duty payable was two merks (26s 8d) upon the sack, weighing 24 stones.[27] In 1434 the custumars of Kirkcudbright accounted for £95 as the duty on 7 lasts (the last being 10 sacks), 1 sack, 6 stones of wool. By 1455-1456, however, the quantity had fallen to 1 last, 5 sacks, 13½ stones, and the duty to £20 15s. In the two years, 1469-1471, Kirkcudbright's wool exports amounted to no more than 3 sacks. Forty years later, 1510-1511, 1 sack, 16 stones were shipped from Kirkcudbright and 1 sack, 12 stones from Whithorn.[28] Thereafter there is little trace of the wool trade in south-west Scotland, until its reappearance, on a

23 S. G. E. Lythe, *The Economy of Scotland*, 82.
24 *APS*, ii., 8; *ER*, viii., 127, 199; xii., 369.
25 *ER*, viii., 549; xii., 269.
26 The total gross customs amounted to £2402, of which £1248 was collected at Edinburgh.
27 *APS*, i., 504.
28 *ER*, iv., 558; vi., 125; viii., 132; xiii., 389.

small scale, at Dumfries after 1577.[29] Similarly there are very few references to exports of "woolskins" (sheepskins). In 1456-1457 90 were customed at Kirkcudbright, the duty paid being 10s.[30]

Hides, on the other hand, were an important export. In 1434 the custumars accounted for £17 16s 3½d for 6 lasts, 13 dacres, that is a total of 1330 hides, the last, on which the duty was four merks (£2 13s 4d), being 20 dacres of 10 hides. In the year 1455-1456, 2700 hides were exported from Kirkcudbright and in 1477-1478 1000 from that port and 1250 from Wigtown. Exports in 1510-1511 amounted to 350 hides at Kirkcudbright, 220 at Wigtown and 510 at Whithorn.[31]

An Act of 1425 imposed an *ad valorem* duty of 2s in the £ on woollen cloth. In 1459, the custumars of Kirkcudbright accounted for 56s for 70 "dozen" of woollen cloth, "counting 2s for each pound's worth for custom." The "dozen" was a length of cloth measuring 12 ells and, as an added complication, quantities of cloth were reckoned according to the "long hundred" of six score. Thus, according to modern computation 100 "dozen" means 120 "dozen" or 1440 ells. In 1464 the custumars accounted for 341 (*i.e.,* 401) "dozen," valued at 10s per "dozen," the duty payable, at 2s in the £, being £20 1s. In 1474 the custumar accounted for 1206 (*i.e.,* 1446) "dozen" and 8 ells of cloth. Exports from Kirkcudbright in 1510-1511 were stated to be 3900 ells, from Wigtown 1660 ells, and from Whithorn 2560 ells.[32] Allowing for the use of the long hundred these figures are equivalent to 390 "dozen," 165 "dozen" and 255 "dozen" respectively. While the value of the cloth remained at 10s, the duty on the "dozen" could be taken, for convenience, as 1s, as indeed is stated in the account of the custumar of Kirkcudbright for 1465.[33] Evidently as inflation brought about a rise in the price of

29 Edgar *loc. cit.*
30 *ER*, vi., 303.
31 *ER*, vi., 125, 558; viii., 554; ix., p. lxx.; xiii., 389.
32 *APS*, ii., 8; *ER*. vi., 494-9; vii., 297; viii., 250; xiii., 389.
33 *ER*, vii., 369.

cloth, the merchants resisted attempts to levy the *ad valorem* duty on the new values. Early in James V.'s reign the Auditors of Exchequer substituted a new *pro rata* duty of 2s 6d on each " dozen " of broadcloth, whether dyed or not. This apparently met with more opposition. In 1517 the custumar of Wigtown and Whithorn accounted for £12 4s for 204 (*i.e.*, 244) " dozen," and the custumar of Kirkcudbright for £36 for 500 (*i.e.*, 600) " dozen," the duty therefore being 1s per " dozen " at the former places and slightly more at the latter. Again, in 1540, the custumar of Kirkcudbright accounted for £11 for one hundred and five score (*i.e.*, 220) " dozen " of woollen cloth, that is, exactly 1s per " dozen."[34]

Merchants were required to give an " entry " of customableable goods. In 1486 the custumar did not charge himself with the custom of a ship coming to Wigtown with wine, because, he asserted, " the merchants thereof did not give an entry of the goods of the said ship." An Act of 1493 forbade the masters and merchants of foreign ships to load any goods until " it be sene be the custumaris and clerkis of the coket quhat gudis and merchandice thai send to the sey, and the custumis and dewteis payit tharfor," and authorised the appointment of searchers to bring to light any infringement.[35] The duty payable on wool was ascertained by weighing it at the tron, for which the tronar received a fee of 1d per sack out of the customs. In 1471 the tronar of Kirkcudbright was given 3d for the previous two years. The cost of maintaining the tron was also allowed in the customs accounts. In 1456 the custumars of Kirkcudbright purchased new weights at a cost of 21s and seven years later they were allowed 35s " for the repair of the tron in cords, wood and the making of scales (*librarum*) of stone and iron."[36] Other goods were customed on the basis of number or value, but it was not necessary for the custumar to check every consignment.

34 *ER*, xiv., 265, 564; xvii., 301.
35 *ER*, ix., 442; *APS*, ii.. 234.
36 *APS*, i., 497; *ER*, vi., 304; vii., 210; viii., 132.

He could estimate the amount, and if this was challenged and he proved to be correct, he was to escheat the goods to the King; if incorrect, he was to repack them at his own expense.[37]

Having paid duty, the merchant received a certificate or cocket, authenticated by the cocket seal of the burgh, and there is some evidence that lead seals were affixed to the goods themselves.[38] If, instead of being exported directly, the goods were then sent by coastal vessel or overland to another port, the cocket was produced to the custumar there, who allowed the goods to pass without payment of any further duty, retaining the cocket for production in Exchequer. In 1512 allowance was given to the custumar of Ayr, "because certain goods were customed in the burgh of Wigtown by John Makke, then custumar, and exported from the realm in the burgh of Ayr, and account made thereof in Exchequer by the said John Makke."[39] Normally such goods were not charged in the custumar's account. In this case the custumar of Ayr appears to have been most dilatory in claiming allowance for the sum overcharged, McKie having ceased to be custumar of Wigtown some six years earlier.

The few recorded cases of customs evasion show the same preference for "free trade" among the men of Galloway that their descendants were to display in the eighteenth century. Although the burgesses of Wigtown objected to such conduct on the part of their neighbours at Whithorn, they were far from blameless themselves. In 1500 the provost and others were accused of deforcing the custumar.[40] Archibald Stewart, tacksman of the customs, brought an

37 *Acts of the Lords of Council in Public Affairs*, 507.

38 There are a few examples of cockets among the Scottish Exchequer records. In 1590 the custumar of Dumfries purchased 600 inking seals "concerning his office." *ER*, xxii., 92.

39 *ER*, xiii., 480. M'Kie does not appear to have accounted.

40 *Acts of Lords of Council*, ii., 466. One of those deforcing the custumar, John Lindsay, was Thomas Maclellan of Bombie, who was custumar of Kirkcudbright and Wigtown. There may have been some dispute over his office at the latter port, in which he appears to have been successful. Lindsay did not render any account as custumar.

action in 1529 against certain men of Wigtown who had taken up the customs of ships from France, Brittany, Ireland and others, landing in Loch Ryan and within the Rhinns of Galloway, and had themselves exported goods without paying customs. In 1540 he and his fellow custumar claimed that the provost of Whithorn and others had defrauded the crown of its customs and the custumars of their dues. Tacksmen, such as Stewart, had a personal interest in preventing evasion, because it affected their own pockets.[41]

Having studied the form of the customs accounts, we may now examine the evidence which they provide concerning the trade of south-west Scotland. First of all, it is necessary to stress that, at the best of times, this trade was of small dimensions. The greatest amount collected by the custumar of Kirkcudbright in any one year was £301, in 1434-1435, and this represented no more than the cargoes of five ships. In 1500-1501 two ships called at Kirkcudbright and two at Wigtown. At other times there was no overseas trade at all during a whole year.[42]

Even so late as the end of James V.'s reign, the bulk of Scotland's overseas trade was handled by the east coast ports. Nearly 60 per cent. of the gross customs revenue was collected at Edinburgh, the custumar of which also passed considerable quantities of goods in transit from the smaller ports. Far behind Edinburgh came Aberdeen, Pittenweem and Dundee, each handling about 7-8 per cent. of the total trade. The five west coast ports, Ayr, Dumbarton, Irvine, Kirkcudbright and Wigtown, between them yielded less than 5 per cent. of the crown revenue from the customs. During the fourteenth century the west coast trade appears to have been of even smaller proportions. Between 1365 and 1369 the customs accounts of Ayr, then the only port with its own custumar, show annual receipts

41 *Acts of Lords of Council in Public Affairs*, 314, 493; *Wigtownshire Charters*, 145-6, No. 118.
42 *ER*, iv., 606; xi., 373.

ranging from £3 7s to £5 12s.[43] The larger sums collected thereafter are no evidence of an increase in sea-borne trade, since the bulk of the wool and other commodities customed at Ayr were sent overland to the east coast burgh of Linlithgow and exported through its port of Blackness. Even this trade appears to have fallen off after 1376. The custumars did not account in Exchequer again until 1409 and there is little evidence to show that any duties were collected at the burgh.[44]

Custumars of Dumfries, Kirkcudbright and Wigtown appear briefly in the Exchequer rolls of 1330 and 1331, but the amounts collected by them were very small.[45] Thereafter, Dumfries appears to have been of little consequence as a port until the latter part of the sixteenth century and the following remarks about trade are mainly applicable to Wigtown and Kirkcudbright. In 1341 David II. granted the earldom of Wigtown, including the burgh, to Malcolm Fleming, and the infeftments of the Earls of Douglas, who later acquired the earldom, show that the grant included the customs, "both great and small."[46] Kirkcudbright also formed part of the Douglas patrimony. In 1434, however, its customs were in the King's hands. The account rendered by George Faulau and John Sleich, on 22nd May, 1434, referred to the arrears of their last account, most probably that for the previous year. Clearly at this date Kirkcudbright was an important centre of trade, the amount collected by its custumars being £136, compared with a mere £4 collected by the custumars of Ayr.[47] In the year 1434-1435 it ranked sixth among the ports of Scotland, the gross customs being £301, compared with £2437 at Edinburgh, £737 at Aberdeen, £719 at Linlithgow, £493 at Haddington and £397 at Dundee.[48] Its dominance over

43 *ER*, ii., 203, 244, 271, 321.
44 *ER*, ii., 374, 378, 403-4, 471, 514, 529; iii., 567; iv., 83.
45 *ER*, i., 316, 336, 374, 394. For other notices of the port of Kirkcudbright in the fourteenth century see Robison, *op. cit.*
46 *Register of Great Seal* (*RMS*), i., App. i., No. 119; ii., No. 503.
47 *ER*, iv., 558, 570.
48 *ER*, iv., 608-24. All figures are to the nearest £ and are in "new," *i.e.*, devalued, money. The 1434 figures are in "old" money, the ratio being approximately £5 "old" to £6 "new."

west coast trade is illustrated by the account of the recently-appointed custumar of Dumbarton. His receipts amounted to no more than £5 13s 0½d, about four-fifths of this sum arising from hides, which had been sent on to Kirkcudbright to be shipped overseas. The custumars of Kirkcudbright had produced the Dumbarton cocket for allowance in their account rendered in 1434.[49]

No further accounts appear to have been rendered by the custumars until the fall of the Douglases. The charter erecting Kirkcudbright into a royal burgh in 1455, while granting the small customs to the burgesses, expressly reserved the great customs to the King.[50] In the following year the two custumars accounted for a total of £94 4s 5d, out of which sum £51 2s 1d came from the cargo of a single ship, belonging to John Gylot. The revenue increased to £101 13s 5d in 1456-1457, only to fall to £52 18s 9d in 1457-1458 and £16 7s a year later. While it is evident that the trade of the port had declined since 1435, at £63 9s the average annual customs revenue in the five years 1455-1460 stood well above Ayr (£7 4s), Irvine (£6 11s) and Dumbarton (£7 6s).[51]

Despite some revival in the following decade,[52] the decline continued. By the end of the 1470's the average revenue from Kirkcudbright had fallen to £36 17s. In 1480-1481 it was no more than £9 5s 8d. The total for the two years 1481-1483 was £32 10s, and for the three years 1483-1486 £42 9s, an annual average of £14 3s. At first the waning fortunes of Kirkcudbright were not matched by any significant improvement in those of the other west coast ports. In the year 1475-1476 only one ship exported goods from Ayr; Irvine was in the same case for that year and the year following.[53] In the six years 1474-1480 the average yield of the customs of Ayr was £21 7s and of Irvine £17 9s. These showed a slight increase over the previous twenty

49 *ER*, iv., 558, 610
50 Robison, *op. cit.*, 154-6.
51 *ER*, vi., 125, 363, 396, 494.
52 1463-4, £116 12s; 1464-5, £43 17s; 1465-6, £83 4s; 1466-7, £91 2s.
53 *ER*, viii., 382-3, 457.

years, but Dumbarton (£9 15s) showed scarcely any at all. From 1479, however, a new source of revenue appeared in the customs arising from exports of herring from Loch Fyne and the "Lowis" or west coast sea lochs. Thus in the year 1486-1487, while the customs of Ayr (£28 7s 4d) exceeded those of Kirkcudbright (£19), a far larger sum (£378 12s) appeared in the combined account for Dumbarton, Irvine and the "Lowis."[54]

Part of Kirkcudbright's decline may be attributed to the appearance of competition from Wigtown. In 1471 Humphrey Colquhoun rendered an account as custumar of both ports. Thereafter Master William Lennox of Cally appears to have held the office of custumar of Wigtown. Although he had not rendered an account before 1476, for which he was to be summoned to the Exchequer, he had paid £3 to Thomas Simson, the former Receiver-General.[55] On 28th January, 1476, John, Lord Carlyle, who had been custumar of Kirkcudbright since July, 1473, took up the same duties for Wigtown also. Thereafter both ports were under the same custumar until April, 1503, although from time to time accounts were rendered separately.[56]

Between 1475 and 1480 the average annual revenue at Wigtown was £20 3s, as against £36 17s at Kirkcudbright.[57] By 1490, however, the balance had shifted in the former's favour. While there were no ships at all at Kirkcudbright in 1487-1489, there were four at Wigtown, and, if no revenue was collected there in the year 1489-1490, that for 1490-1491 (£22 16s 8d) was greater than Kirkcudbright's (£14 3s 4d) for both years combined.[58] In the years 1496-1497 and 1500-1501 two ships exported goods from each port, but Wigtown's average share of the customs over the five-year period 1496-1501 (£9 17s) was slightly larger than Kirk-

54 *ER*, ix., 65, 537, 542.
55 *ER*, viii., 250, 380. Simson was in office as Receiver-General (*i.e.*, Comptroller) until July, 1475.
56 *ER*, viii., 250, 380, 625-6; ix., 69-70; x., 137; xii., 154.
57 *ER*, viii., 380, 544, 625-6; ix., 69-70. These figures exclude the account for 1476-7, which does not distinguish between receipts at the two ports.
58 *ER*, x., 137, 305.

cudbright's (£8 10s). The average for Ayr (1497-1501) was £83 19s and for Irvine and Dumbarton combined (1498-1501) £88 4s.[59]

If these figures suggested that trade was bypassing the southern ports in favour of those on the Firth of Clyde, it was clearly still considered that the customs of Wigtown and Kirkcudbright were capable of producing a far greater yield. The ports, having been under separate custumars from April, 1503, were both committed to the charge of William Maclellan of Bombie. His tack, commencing on 30th September, 1505, bound him to pay £100 *per annum* for both ports. But John McKie of Myreton, who had been appointed custumar of Wigtown and Innermessan on 1st April, 1503,[60] was not prepared to relinquish that office and the Comptroller and Lords of Council appear to have been unwilling to compel him to do so. On 11th December, 1505, they ordained that he should continue to intromit with the customs of Wigtown until 1st April, 1506, and a proportional sum should be deducted from Maclellan's tack duty, notwithstanding his obligation. Accordingly the Exchequer allowed £25 off his first year's payment, to compensate him for the loss of the Wigtown customs for six months. In fact, he probably gained by the transaction, these being the winter months, during which there was always less shipping upon the seas.[61]

Notwithstanding the allowance Maclellan found difficulty in keeping up his annual instalments, and only gave the Comptroller £15 out of the £75 still due for the first year. By 1507 he had cleared off these arrears of £60, but £96 13s 4d out of his second year's tack duty was outstanding, to be paid at the following Michaelmas. Again, in 1508, he had to pay off £83 6s 8d arrears by Michaelmas. Although £23 8s was deducted from the final year's payment for the goods in a Spanish ship at Kirkcudbright,

59 *ER*, xi., *passim*.
60 *RSS*, i., No. 926. For the burgh of Innermessan see *Transactions*, xxix., 94-5. There is no evidence of the collection of customs there.
61 *ER*, xii., 474; *ADC*, xvii., *f*.101.

allowed custom-free by the King's command, when his tack ended on 30th September, 1509, he owed £103 8s 4d. Between that date and 1st March, 1510, when Patrick Forester and William Inglis were appointed joint custumars, "no persons intromitted with the office, neither did any custom arise."[62] It would be easy to conclude that Maclellan had made a bad bargain and that the customs of Wigtown and Kirkcudbright were no longer worth as much as £100 *per annum.* On the other hand in less than six months (1st March - 13th August, 1510) Forester and Inglis collected more than that amount, namely £52 16s at Kirkcudbright and £50 2s 10d at Wigtown. This may be compared with the averages for the previous five years of £88 3s 5d for Ayr and Irvine combined and £76 4s for Dumbarton.[63]

Just as Kirkcudbright had been faced with competition from Wigtown, so Wigtown had to meet a nearer threat from Whithorn. As the story of the litigation between the two burghs will be dealt with at a later stage, it may suffice for the moment to say it led to some complications in the custumars' accounts. In 1511 the Exchequer received accounts from the two custumars of Kirkcudbright, Simon McCristin, custumar of Wigtown, and John McIlwain and Cuthbert Cunningham, who had intromitted with the customs of Whithorn, apparently without any formal commission from the King. It was decided that these five should continue to act until 1st March, 1512, and that they should pay jointly £39 1s 9d to the Receiver-General "as they were bound before the Lords of Exchequer for that sum." From 1st March, 1512, onwards Mungo Murray received the customs of both Wigtown and Whithorn. Apparently he was indifferent to the dispute between the burghs, since he admitted that he bade Thomas Bavirlaw, Englishman, "pas and tak certain wyne quhar he plesit," provided he paid custom for it. Between August, 1512, and July, 1513, he was also custumar of Kirkcudbright, his

62 *ER,* xii., 474, 598; xiii., 88, 227, 369.
63 *ER,* xiii., *passim.*

receipts for all three ports amounting to £71 13s 4d. In that year the customs of Dumbarton yielded £85 16s, those of Ayr £77 2s 4d but Irvine's no more than £22 15s 4d.[64]

For the greater part of James V.'s reign the customs of both Wigtown and Kirkcudbright were in the hands of tacksmen. In the year 1517-1518 Gilbert Lauder, burgess of Edinburgh, paid £73 6s 8d for both ports, but from 1518 he had Kirkcudbright only, at a tack duty of £40, Wigtown being set to Andrew Stevenson, canon, for 50 merks (£33 6s 8d). After the expiration of Lauder's tack in March, 1524, the Kirkcudbright customs were collected and accounted for in the normal manner, though without any benefit to the revenue. Nothing was paid in the year from March, 1524, to March, 1525, when Thomas Maclellan entered on office as custumar, and only £11 between March and August, 1525. In his first year as custumar, William Maclellan, provost of Kirkcudbright, accounted for £20, and in the four years ending in 1531 his receipts were no more than £21 10s 8d. Accordingly, in the Exchequer of that year, the Comptroller and Auditors granted him a three-year tack for the small sum of 20 merks *per annum*.[65] Meanwhile, since March, 1522, the customs of Wigtown had been in the hands of Archibald Stewart, canon of Glasgow. In his first account, rendered in August, 1529, the Auditors accepted £14 for the first three and a half years of his tack (1522-1525) "because ships did not come there at that time, on account of the wars at sea and other impediments." For the remaining four years he paid the full rate of 40 merks *per annum*.[66]

At this date the custumars of several other ports were tacksmen, including, in 1527, Ayr, Banff, Cupar, Dysart, Inverness, Irvine, North Berwick and Stirling. By 1535 the number had been reduced to seven, namely Ayr, Banff, Dumbarton, Inverness, Irvine, Kirkcudbright and Wigtown.

64 *ER*, xiii., 369, 491, 569-70, 577; *ADC*, xxv., *f*.190. (In *Wigtownshire Charters*, 140, No. 110, "had" is printed instead of "bad.")
65 *ER*, xiv., 335, 370, 373; xv., 50, 186-7, 361; xvi., 60, 150.
66 *ER*, xv., 513.

The custumar of Ayr paid £42 and the custumar of Irvine £40, as against £26 13s 4d for Wigtown and £13 6s 8d for Kirkcudbright. As the tacks expired in 1535, Ayr and Irvine reverted to direct collection, William Maclellan's tack duty was increased to £20, while Archibald Stewart and his cousin, Peter Stewart, had to pay 43 merks instead of 40 merks for Wigtown.[67] With the termination of Maclellan's tack in 1537 and that of the Stewarts in 1539 the decline of the southern ports became even more apparent. In the last year of James V.'s reign, 1541-1542, Irvine and Ayr ranked eighth and ninth among the ports of Scotland according to gross customs receipts. Although far inferior to Edinburgh and the other main east coast ports (Aberdeen, Pittenweem and Dundee), with £95 9s and £79 1s respectively they were little behind Inverness (£158 17s), Perth (£139 5s) and Haddington (£100 15s). Receipts at Kirkcudbright, however, amounted to only £12 13s 4d for some woollen cloth, and at Wigtown to £29 16s.[68]

If the unsettled conditions of Mary's minority affected trade and reduced the customs receipts at all the Scottish ports, once again Kirkcudbright and Wigtown fared worse than Ayr and Irvine. From 1542 to 1555 Thomas Maclellan, tutor of Bombie, paid a tack duty of £16 per annum for Kirkcudbright, while up to 1554 the custumars of Ayr, Irvine and Dumbarton paid £40, £20 and £10 respectively. In 1556, however, soon after resumption of direct collection, their receipts amounted to £31 1s 8d for Irvine, £53 19s 3d for Ayr and £97 10s 4d for Dumbarton. Wigtown sank into complete obscurity. In 1552 Alexander Stewart of Garlies accounted for the periods September, 1539, to August, 1540, and July, 1543 to October, 1552. His receipts were only £39 6s 2½d, of which no more than £18 10s 4½d had been paid to the Comptroller, the remainder being remitted by a precept of the Earl of Arran, then Governor of Scotland.[69] In 1562, 1568, 1576, 1577 and 1579 attempts

67 *ER*, xv., 358-62: xvi., 372-7: *RSS*, ii., No. 1758.
68 *ER*, xvii., 457-64.
69 *ER*, xviii., 117, 145, 148-9, 171, 334, 338.

were made to enforce the duty of accounting upon the custumars of Wigtown and Kirkcudbright. These were invariably unsuccessful until 1582, when Thomas Maclellan of Bombie entered an account for the previous twenty-seven years, enumerating, with suspicious precision, the exact quantities of hides, skins, woollen cloth and coals upon which custom had been paid, his total receipts being £71 18s 10d.[70] No account was rendered for Wigtown, and the Crown received no further profit from the customs of either port until well into the seventeenth century. Even allowing for the possibility of fraud on the part of custumars and merchants, there can be but one conclusion, that the overseas trade of these burghs had virtually ceased.[71]

Why was the history of the trade of Kirkcudbright one of slow decline in the fifteenth century, accelerating in the sixteenth? The first cause was geographical. In the estuary of the Dee Kirkcudbright had the advantage of a sheltered anchorage, described in 1548 as one of the greatest havens of the world. But Sir Thomas Holcroft, the Englishman, who recorded this, added that his informants had never heard of vessels larger than forty or fifty tons unloading or putting in there, unless through stress of weather. Larger vessels went to Ayr or Dumbarton, because "the country of Kirkcudbright is so full of mountains, rocks, etc., that nothing can pass but upon a man's or horse's back."[72] If the port was naturally superior to those of the Clyde, it suffered in comparison with them through its lack of hinterland and poor communications with the rest of Scotland. The same disadvantages, of course, also applied to Wigtown.

The second cause lay in the nature of the trade itself. After the decline of the wool trade, the principal exports

70 *ER*, xix. 496; xx., 389, 503, 519, 547; xxi., 208.

71 There are a few references to trade and shipping in other sources, *e.g.*, *Kirkcudbright Town Council Records*, 1576-1604, 136. After 1660 for customs purposes Kirkcudbright came under Dumfries and Wigtown under Portpatrick.

72 *Cal. of State Papers* (*Domestic*), 1601-1603 (Addenda, 1547-1565), 382. A fine contemporary map of Kirkcudbright and the Dee estuary, *c.*1566, is reproduced in Armstrong's *Liddesdale* (App. cvii.).

of the region were hides and woollen cloth. In 1541 a burgess of Wigtown obtained licence to "fraught" a ship of France or Brittany for taking fish in the Western Isles.[73] The customs accounts show, however, that Kirkcudbright and Wigtown failed to share in the valuable export trade from the west coast herring fisheries, even though these extended as far south as the Mull of Galloway.[74] The main trade was with the western ports of France, Frenchmen and French ships being mentioned in the customs accounts with occasional references to Bretons and ships of St. Malo.[75] There was also a certain amount of trade with Spain. A lawsuit of 1483 referred to wine shipped from Spain to Wigtown, provision having been made in the charter party in case any was drunk by the crew. In 1509 a Spanish ship called at Kirkcudbright and in 1512 the *Santa Maria* of Biscay, apparently the same ship, came to that port.[76]

Imports were almost entirely confined to items for local consumption. Although Spanish iron was imported through Kirkcudbright for the King's works at Linlithgow in 1434,[77] at a later date such shipments would go direct to Dumbarton. The burgh records of Wigtown show the community making common bargains for the purchase of shiploads of wine and salt. On 21st June, 1525, the alderman and bailies bought "ane schip of salt fra ane France man callit Geliane." The price, at 16s 6d the boll, was to be paid within eight days, one-third in hides, one-third in cloth and the remaining third in cash.[78] Such bargains normally took this form of "two parts pennyworths and third

73 *Wigtownshire Charters*, 146, No. 119. Direct trading with the "Lowis" was forbidden, and merchants were required to buy fish at free burghs, such as Wigtown and Kirkcudbright. (*Acts of the Lords of Council*, ii., 359.)

74 Within the "West seas" from the Pentland Firth to the Mull of Galloway, the Crown was entitled to levy the "assize herring," from each boat taking part in the herring fishing. The right of collection was generally let to tacksman and was later feued.

75 *ER*, iv., 558; vii., 512; viii., 317-8; xi., 50-1.

76 *Acta Dom. Auditorum*, 23; *ER*, xiii., 227, 491.

77 *ER*, iv.. 558.

78 MS Wigtown Burgh Court Book (Scottish Record Office), *f*.165.

part silver,"[79] showing that Galloway was unable to persuade foreign merchants to accept sufficient exports to pay for the near-essential imports of wine and salt.

Wigtown's decline as a port may be partly attributed to the conservatism of its community and merchants, of which these common bargains were a symptom. Medieval trading practices appear to have been adhered to rigidly. In 1513 Dominic Maclellan and Simon McCristin, the former custumar, were indicted at the Justice Ayre of Wigtown for oppression done to the community of Wigtown in taking the best merchandise coming in ships to the burgh and keeping it in their cellars.[80] If the community objected to such unfair trading practices in their fellow townsmen, it is not surprising to find to what lengths they were prepared to go to meet competition from outsiders.

Within a week of John McKie's appointment as custumar of Wigtown in April, 1503, the burgh obtained two further letters under the privy seal. The first instructed the sheriff to command all the lieges, chapmen and others, within the sheriffdom, not to buy, sell or regrate wax, iron, tar, fustian, broad and narrow cloth, wine, hides, wool, skin, marts and victuals or others, which should be sold within the burgh, under pain of escheat. The second empowered the sheriff, alderman and bailies to escheat all goods sold outside the freedom of the burgh, one half to go to the King, for which they were to account in Exchequer, and the other half to themselves.[81] The sequel leaves little doubt that these letters were directed principally against the inhabitants of Whithorn.

Until 1511 Whithorn was a burgh belonging to the prior and convent of the cathedral church. Like other religious houses, they enjoyed certain trading privileges. For instance, James IV. granted the abbot and convent of Glen-

79 3 May, 1527, purchase of wine from a merchant of St Malo (*f.*186); 5 Nov., 1530, purchase of salt (*f.*237); 7 June, 1531, purchase of Gascon wine (*f.*244); 7 Feb., 1532/3, purchase of Rochelle wine and salt (*f.*272).

80 Pitcairn, *Criminal Trials*, i., 93.

81 *RSS*, i., Nos. 927-9.

luce the right to purchase goods for themselves and their monastery from ships putting into Loch Ryan or Luce Bay.[82] Whithorn's grants were more extensive. In 1325 Robert I. gave the prior and convent a confirmation of the toll of the island of Port Witerne, but this probably extended to no more than the small customs, reserving the great customs to the Crown.[83] When, in 1463, the custumar of Kirkcudbright accounted for some wool and woollen cloth shipped from the Isle of Whithorn, the duty, amounting to £20 12s 8½d, had been levied by the prior. In 1464 the Lords of Council granted a postponement until the next Parliament or Council but, if any decision was given, it must have been unfavourable to the prior, who paid the whole sum due before July, 1468.[84] James IV., however, by charter dated 3rd January, 1492, and confirmed in 1499, granted the prior and convent the customs of all skins, hides, fish, cloth, wool and other goods transported in their own ships.[85] It may be presumed that the inhabitants of the burgh also benefited directly or indirectly from these concessions.

James II.'s charter had given Wigtown a trading precinct conterminous with the sheriffdom "from le mydstreme of the Water of Cre to the sea of Ireland"[86] and the exclusive privileges thereby conferred were directly threatened by the trading activities of the prior and his burgesses. No doubt it was apparent to the authorities of Wigtown that to succeed in suppressing these they must enlist the Crown's support, by showing that the King's interest was involved as well as their own. Accordingly, in 1510, the alderman and bailies brought an action against the prior of Whithorn and certain inhabitants of that burgh for usurping Wigtown's privileges and defrauding the Crown of customs by drawing strangers and their ships from the burgh and freedom thereof to the Isle of Whithorn. This

82 *Wigtownshire Charters*, 55, No. 38.
83 *RMS*, i., App. i., No. 20.
84 *ER*, vii., 210, 297, 592.
85 *RMS*, ii., Nos. 2075, 2486.
86 *Wigtownshire Charters*, 123, No. 89.

action, together with an unspecified counter-action by the prior and convent was continued until the next Exchequer.[87] No decision was given, however, until 7th July, 1513, when the Lords of Council heard an action brought jointly by the Crown and the alderman and bailies of Wigtown. The summons referred to the infringement of Wigtown's trading privileges and also alleged that wine, wax, iron and salt had been sold at Isle of Whithorn to the King's enemies of England, the Isle of Man and Ireland in time of dearth, contrary to various Acts of Parliament. Alexander Adair, bailie of Whithorn, admitted that five or six young men of the burgh had taken wine to the Isle of Man, and the prior acknowledged that he and others had bought from Irishmen and Manxmen and sold goods to them in return. Accordingly the Lords of Council found that the inhabitants of Whithorn had broken the Acts of Parliament by selling wine and merchandise to Irishmen and Manxmen, but no decision was given on Wigtown's claims.[88]

Meanwhile, on 1st May, 1511, the prior had obtained a new charter from James IV., ratifying those of Robert I. and David II. and creating Whithorn anew a free burgh, with a market cross, fairs, a tron and trading rights. These privileges were again confirmed during James V.'s minority, despite Wigtown's protests. On the other hand, in April, 1515, Patrick Mure, alderman of Wigtown, was appointed custumar, a development which must have been displeasing to the men of Whithorn.[89] It is hardly surprising, therefore, that when next Wigtown resorted to legal action against their neighbours, they obtained the Crown's concurrence by alleging that Whithorn had defrauded the King of customs, by soliciting and drawing off strangers and their ships to Isle of Whithorn, Portyerrack and other unfree places. to wit, two ships in 1513 and 1514 and three in 1515 and 1516. Although Wigtown obtained decree in

87 *Ibid.* 140, No. 109.
88 *Ibid.* 140-1, No. 110.
89 *RMS*, ii., No. 3569; *ER*, xiv., 93; *Wigtownshire Charters*, 141, No. 111. The effect was to make Whithorn a royal burgh. See Professor Pryde's article in *Transactions*, xxix.

absence, their triumph was short-lived, for it was ordained "not to be pronouncit." Accordingly yet another action was brought, and after two continuations, the Lords of Council endeavoured, unsuccessfully, to persuade the parties to reach some agreement.[90]

In 1532, some years after the inconclusive end of these actions, Wigtown determined to get to the root of the matter by seeking reduction of Whithorn's charters. The Crown's interest was invoked, on the grounds that the King had been defrauded of 2000 merks for great customs and Wigtown of 3000 merks for petty customs. As the tacksmen of the great customs only paid 40 merks *per annum* and the burgh set their petty customs for 40s, these figures may be dismissed as medieval exaggeration. But in 1513, the prior of Whithorn had boasted that he could show older infeftments than the town of Wigtown had, and this proved to be the case. Since Wigtown could produce no charter earlier than 1457, their action failed. Nevertheless, they brought yet another in the following year, but without result.[91] They were still trying to enforce their privileges in August, 1541, when Thomas Kennedy and William Nisbet were summoned before the Auditors of Exchequer to hear themselves decerned to deliver half of 400 bolls of salt, or its value, escheated "throw thar bying tharof fra certane Franchemen within the boundis and fredome of the said burgh of Wigtoun, topping and selling of the samyn to the Kingis liegis efter that thai wer inhibit."[92]

If Wigtown had failed in their attempt to suppress Whithorn's competition, they had at least prevented the development of an apparently promising line of trade. The decree of 1513 forbade the prior and inhabitants of Whithorn and other persons living in Galloway to "mak

90 *Ibid.* 139, 141-3, Nos. 112-4.

91 *Ibid.* 140, 143-5, Nos. 110, 115-117a; *Acts of Lords of Council in Public Affairs*, 397-8. On 17 Dec., 1517, the small customs of ships and boats coming to the haven of Wigtown were set to Thomas Mure for one year, for 40s. (Burgh Court Book, *f.*74.)

92 ADCS, XVI., *f.*136; *Wigtownshire Charters*, 146, No. 119a. See *ibid.* No. 120 for a case of licence being given to trade outside the burgh.

merchandice" with foreigners of wine, wax, iron, salt or any other goods imported into Scotland "to be haid furth of the realm" on the grounds that these should "remain inwith the realm to the furnessing at sustentacion of our soverane lord, his realm and leigis." It was further ordained that "gif thai like to mak merchandice with strangearis that it be of sik as growis within the realm and nocht of merchandice that cumis fra uther cuntries, sa that the common wele of the realme be nocht hurt tharby be derth and lak of sik stuff and uther wais."[93] Apparently the English, Irish and Manx traders, who had come to Whithorn, were interested in obtaining just such commodities, rather than the meagre range of home-grown exports.

Such was the hostility between Scotland and England that there was little trade of any kind. The depredations and losses were not all on one side. In 1459 the account of the custumars of Kirkcudbright included £11 10s paid by Robert Morell, Breton, as the admiralty dues (*de admirallatu*) of two ships taken by him from the English.[94] In 1522 an Englishman, Thomas German, took a ship in Loch Ryan, which contained not merely a cargo of fish but also a burgess of Whithorn and two burgesses of Ayr.[95] In 1564 a Wigtown ship was seized by Shane O'Neill and other Irishmen. At times piracy seemed to know no frontiers. English pirates, who captured a ship in the Severn in September, 1564, took the goods to Whithorn, where they sold them without paying customs. There was a similar case in 1577 and in 1584 both Kirkcudbright and Whithorn were suspected of harbouring pirates.[96] Piracy, however, was a hazard which applied to the trade of all Scottish ports, whether on the west or the east coast.

The customs accounts show that there was very little trade between Galloway and England and Ireland before

93 *Ibid.* 141, No. 110; ADC, xxv., *f.*191.
94 *ER*, vi., 495.
95 For an account of the Whithorn man's misfortunes see *Wigtownshire Charters*, 16, 27, No. 17.
96 *Cal. of State Papers (Scotland)*, i., 198; *Cal. of Scottish Papers*, ii., 126; *Reg of Privy Council*, ii., 636-8, 645-6; *Recs. of Convention of Royal Burghs*, i., 197.

the beginning of the sixteenth century. In 1504 some malt was imported to Kirkcudbright and in the following year duty was paid on 158 " dozen " woollen cloth and 7 chalders and 8 bolls of coal entered from England. In 1512 the duty on English cloth customed at Whithorn amounted to 12s, in the following year certain barks (*cimbe*) of the Isle of Man called there, and in 1516 the custumar of Wigtown and Whithorn charged himself with 12s for a bark of England.[97] Between 1498 and 1500 goods from Dublin and other goods belonging to Irishmen were imported at Ayr. Although Wigtown's litigation showed that Whithorn had been trading with Ireland, nothing more can be learned about this trade from the customs accounts. In 1554 the goods of a burgess of Kirkcudbright were arrested at Dublin and he himself was pledged to return with testimonials regarding practice in commercial intercourse between Scotland and Ireland.[98] Although the accounts of the tacksmen of the customs under James V. give no particulars of their receipts, there can be little doubt that trade with Ireland and England was of small dimensions. When more peaceful conditions obtained in the second half of the sixteenth century, however, the benefit was reaped, not by Kirkcudbright or Wigtown, but by Dumfries.

After 1331, there is no reference to customs accounts of Dumfries until 1464. Indeed, the account of Robert McBrair, provost, who took office as custumar on 12th July, 1463, stated that " before this account no great custom arose in the said burgh." Duty on wool and cloth in the first year amounted to £52 5s, half of which was remitted by the Lords of Council " to the merchants of Brittany coming to Drumfres with three ships . . . to induce them and others like them to come to those parts." This encouragement failed in its purpose, for in the next three years only one ship exported goods from Dumfries and the duty collected was no more than £7. Nothing more

97 *ER*, xii., 269, 368, xiii., 491, 577: xiv., 195.
98 *ER*, xi., 544, *Acts of Lords of Council in Public Affairs*, 637.

occurred until 1st April, 1505, when Nichol M'Brair and William Cunningham were appointed custumars. In their first account, rendered on 28th July, 1506, they charged themselves with £25 for goods in four ships, but in the following year Cunningham and Herbert McBrair received only £9 3s and the collection of the King's customs at Dumfries ceased once more.[99]

So far, the trade of the port had been sea-borne and, apparently, with France and Brittany. In this Dumfries suffered the disadvantages of Kirkcudbright, without the advantage of its harbour. On the other hand, when more peaceful relations obtained with England and the division of the Debatable Land brought safer communication by land, Dumfries was in a much better position to handle English trade. In 1555 Bartholomew Villemore, the Comptroller, appointed John McBrair, provost of Dumfries, custumar of English goods imported within the West Marches. In the first year he paid a tack duty of forty merks (£26 13s 4d). His receipts must have fallen off, for in the second year he paid £20, and in the three years 1557-1560 only £8 11s 4d. No accounts were rendered from 1560 to 1578 and the revival of this trade thereafter lies outside the scope of the present article.[100]

99 *ER.* i., 336, 394; vii., 282, 510; xii., 468, 598.
100 *ER*, xviii., 330-1; xix., 2, 113; xx., 296.

ARTICLE 15

Plant Distribution in South West Scotland

By Dr H. MILNE-REDHEAD.

The publication in 1962 of the Atlas of the British Flora marks the increasing interest that has been taken in field botany of late years. Many factors have contributed to making such an ambitious project possible, not least the voluntary and enthusiastic support of amateur botanists all over the country. Since the turn of the century, in addition to taxonomic changes, much ecological and genetic information from field and experimental garden work has been amassed. An up-to-date British flora was much needed and Clapham, Tutin and Warburg filled the gap. The Ordnance Survey in their New Popular Edition (since replaced by the 7th Series) added the National Grid to their 1″ maps in the post-war period. They then supplied a set of 1/2500 plans, each plan representing a 10 kilometre-sided square of countryside. Internally divided into 1 kilometre squares, these plans were available for the whole of Southern Scotland. Armed with one of them, in a day a field botanist, suitably transported, could mark his mapping card to a figure approaching the 250 species, considered adequate at that time for a square in this area. The Botanical Society of the British Isles arranged two meetings in S.W. Scotland, the first at Newton-Stewart in 1955 and the other at Moffat in 1957. Both set a high standard of competent field work, but as there are 80 squares in Dumfries and Galloway, much was left to be done by local and visiting botanists. An Exhibition, held in Dumfries in April, 1958, and sponsored by the Committee for the Study of the Scottish Flora, further publicised the mapping work that was proceeding. The field cards, after scrutiny by a referee with local knowledge, were sent on to the Headquarters of the Distribution Maps Scheme at Cambridge for collation of data and preparation of the maps now published. A Critical Supplement to the Atlas is now in course of preparation.

Scott-Elliot's *Flora of Dumfriesshire,* published in 1896, has for many years usefully served its essential purpose of providing a conspectus of the flowering plants and vascular cryptogams to be seen in Dumfriesshire and parts of the Stewartry of Kirkcudbright. James McAndrew of New Galloway did yeoman work at that time and his list of the plants of Wigtownshire was published in the Society's Transactions for 1893-94. He also listed local bryophytes and lichens and these have formed the basis for all future work.

Changes in the phanerogamic flora since Scott-Elliot's day have been relatively few in this region. Plants known for years but never published have been hailed as new discoveries. Some long lost sight of have been seen again where presumably they had always been. Lychnis viscaria recorded by the Rev. J. Singer in the Dumfries Statistical Account in 1843, and alluded to by McAndrew in 1896-97 Transactions as a very doubtful record, was still growing near Port O' Warren in 1955. Linum anglicum, referred to in old accounts of field excursions, still graces Brighouse Bay. But recent changes in woodland management have probably restricted the range of some local plants. Paris quadrifolia lingers yet in two widely separated stations in Dumfriesshire but there is no recent record from the Stewartry. So far Neottia nidus-avis is unlocalised in S.W. Scotland. Grazing and burning have reduced the orchid population of our hills. Coeloglossum viride and Leucorchis albida are uncommon. Listera cordata has one known station (though more frequent in Ayrshire) and Hammarbya paludosa none. Submerged water plants are notoriously fickle but Pilularia globulifera, Elatine hexandra and Eleocharis acicularis have all been seen recently, and Lemna trisulca, mentioned in a 1946 field meeting report, floats in a Dumfriesshire loch. Among plants of mires, Rhynchospora fusca and Carex elongata may have disappeared, but Thelypteris palustris is a recent addition, although drainage is affecting its survival in one of its two Stewartry stations. Spartina townsendii has spread on our coasts and Hierochloe

odorata is known from two more Kirkcudbright localities. This grass and Juncus alpinus (no longer known from Loch Grennoch) have been found in Roxburghshire fens, as has also Calamagrostis neglecta, not so far seen in the south-western counties. But Calamagrostis canescens remains near New Galloway, and Calamagrostis epigejos is a new Stewartry grass. The Carices paupercula and limosa still grow in several places, but seldom look flourishing. Perhaps the most interesting find has been Najas flexilis from Loch Kindar, filling a gap in its previously recorded range. This plant has a unique distribution, being scattered along the Atlantic seaboard of the British Isles, found sparingly in Europe, mainly in Scandinavia, but much more generally in North America from British Columbia and Quebec in the north, southwards to California and Florida. It was previously thought it was a species that had crossed to this side of the Atlantic in Tertiary times when a land bridge may have existed. Subsequent examination of post-glacial deposits has established that it was much more widespread and plentiful in the Boreal period, rather suggesting a circumpolar range reduced by climatic deterioration. It is a romantic possibility that Najas may have been present in Loch Kindar for upwards of ten thousand years.

Numerically, knowledge of the bryophyte flora has made more progress. Over 100 species and varieties of mosses and 70 hepatics have been added in the last 15 years to the lists for Dumfries and Kirkcudbright. The British Bryological Society held a week's field meeting based on Dumfries in September, 1961, and the concentrated work of twenty active members helped these totals considerably. A list of Wigtownshire bryophytes was published in the B.B.S. Transactions in 1956 after some intensive work by three visiting bryologists. A mapping scheme has been initiated by the B.B.S. for the British Isles and provisional maps of individual species have been prepared for publication.

Among mosses Dicranum flagellare, Amblystegium compactum and Eurhynchium megapolitanum are Scottish

rarities which were seen during the Dumfries Meeting. Buxbaumia aphylla, an erratic species not seen in Southern Scotland for many years, frequented the steep north-facing slope of a Dumfriesshire railway cutting for four years consecutively. Dicranum falcatum, Coscinodon cribrosus and Plagiopus œderi are new to the Moffat hills. Mnium cinclidioides at Loch Urr, Amblystegiella sprucei near Langholm, Eurhynchium speciosum from the heughs of Colvend and Rhynchostegiella teesdalei from Kirkbean and Hightae are additions worth a mention.

The hepatic flora of S.W. Scotland is of great interest, arising from the fact that it is at a meeting point of northern and southern, eastern and western species. Pleurozia purpurea does not cross into England or Dumfriesshire and many other oceanic, so called Atlantic hepatics, though occurring sparingly in the English Lake District and more generally in the West Highlands, thin out or disappear in this part of Scotland. Porella thuja, Marchesinia mackaii and Frullania microphylla, previously known only from Wigtownshire, reach the boundaries of Nithsdale. Aphanolejeunea microscopica, with a sole record of MacVicar's from Glen Trool, has been traced to Moffatdale. Lophocolea fragrans, indicated from Portpatrick, has been found to have one of its main centres of distribution in a coastal strip from near Ballantrae to Kirkbean, with an inland home by the Enterkin Burn. This species has been chosen for one of the first maps. Unrecorded until recently were Drepanolejeunea hamatifolia, and Colura calyptrifolia, both single station Atlantic hepatics from the Stewartry, and the waterfall-haunting Jubula hutchinsiæ with a small colony in each of the three counties. Cololejeunea calcarea, from a blank in the south-west, has now achieved many dots in Dumfriesshire and Ayrshire, while the rarer Scottish species C. rossettiana has one. Other single station plants are Lophozia heterocolpa from the eastern, and Marsupella adusta from the northern, borders of Dumfriesshire.

For the future, parts of the shires of Roxburgh and Selkirk have been insufficiently worked for both flowering

plants and bryophytes, and a rewarding start has been made to remedy this deficiency. Lathræa squamaria revels in the vicinity of Selkirk and Pyrola species flourish in Roxburghshire. Atlantic hepatics do not reach thus far east, but a lengthening list of interesting mosses and liverworts is being made.

ARTICLE 16

Records of Dumfries and Galloway

By A. E. TRUCKELL, M.A., F.S.A.Scot., F.M.A.

Recently the writer was astonished to find that an advanced student of Scottish economic history did not know of the printed transcripts of Kirkcudbright Town Council records, though he regarded them as of major importance to his study when he was shown them. It may be, therefore, that the small number of researchers into the history of our area—social, economic, agricultural, shipping, military, and so on—is at least partly due to the insufficient publicity given to the original records or transcripts which are available within the area for researchers. This brief note is designed to show something of what is available locally—there is also, of course, a great deal of local material in Edinburgh, but that is not on the whole so easy of access for the amateur.

Largest by far in bulk are the Dumfries Burgh Records, often referred to in this Society's Transactions. These begin with loose documents from the early 1300's onwards: from 1506 onwards there is an almost complete run of Burgh Court records and Town Council Minutes up to the present: the earlier volumes present life in the town—and indeed in the entire South-West, for the town was the economic centre of a wide area—in astonishing richness and depth. The first Burgh Court volume, 1506-37, has been transcribed by the writer: the second, 1561-64, is half finished: all loose documents (accounts, petitions, correspondence)—many thousands of items—have been numbered and listed, in precis form, up to 1720, and work is now proceeding on the much larger amount up to 1850. There are also Protocol Books for the mid-16th century.

The best reference list of all this material is Mr Atholl Murray's excellent general catalogue, available for reference at the Ewart Library and at the Museum. The minute-books of the Trades of Dumfries—the earliest of

them running from 1612—are available for study at the Library. The Burgh now has two Records Rooms above the Burgh Architect's department in George Street, where the bulk of the records mentioned above are kept in proper order in racks and record boxes: some are also at the Burgh Museum, and it is through the writer at the Museum that access to the Burgh Records is obtained. Also available are the Kirk Session Records from 1648 to the present: the earlier volumes are of great interest as social history: the first volume, 1635-48, is in Edinburgh but it is hoped that by the time this note is published a complete photocopy of it will be available in Dumfries.

Moving Eastwards, photostats of the Mouswald Kirk Session Minutes for 1649-59 are now available at the Ewart Library. Eastwards again, in Annan, the Town Council Minute volume beginning in 1679 sheds much useful light on families in the area and on the vigorous attempts made by that town in the 1690's to cash in on the tobacco trade.

Turning Westwards from Dumfries, we find that through the munificence of the late Marquis of Bute and the erudition of Miss Johnstone and Miss Armet, the transcribers, the Burgh Court Records and Sheriff Court Books of that town from 1576 to 1658 are magnificently available in printed vellum-bound volumes. These colourful and detailed records are of the highest importance, providing a lively picture of a small mercantile and market port: and they run continuously through the period 1590-1630, a weak spot in the Dumfries records.

Westwards again, the Kirk Session Records of Minnigaff, Penninghame and Wigtown, mainly running from the 1680's into the mid-18th century, have also been published in the same lavish format through the same agency, again providing a detailed picture of life in that area.

A very important recent development is the transcription, by the late Professor Anderson, of the Wigtown Burgh Court Records for 1512 to 1535: typescripts and a microfilm of this are available at the Museum and it is

hoped that by the time this paper appears typescripts will be available also at Dumfries, Kirkcudbrightshire and Wigtownshire County Libraries.

Westwards again, Stranraer still has its Town Council Minute Book from 1684, a lively and varied source showing the vigorous efforts of Stranraer to attract skilled craftsmen, tradesmen and merchants to the town by offers of burgess-ship. Stranraer also has a local notary's Protocol Book, running onward from the 1580's, and that fine page of illuminated plainsong for Easter Eve, dating to about 1425, which bound the protocol book and which is now displayed with it in Stranraer Museum.

The Dumfries, Kirkcudbright and Wigtown records are particularly valuable for evidence on the Solway's foreign shipping in the 16th century.

ARTICLE 17

Letters from Dumfries during the Jacobite Rebellion in 1745

By W. A. J. PREVOST.

In primitive warfare as compared with our modern scientific age one of the principal sources from which intelligence was obtained was by means of spies or agents, and this was certainly true in so far as the Jacobite rebellion of 1745 was concerned. This is made quite clear from correspondence carried on by the then Provost of Dumfries and others in that town with people in England when the latest news regarding the rebel army was distributed throughout the country. This intelligence system depended to a great extent upon the postal service then in operation and without which the regular transmission of intelligence reports could not have been maintained. Dumfries was an important link in the chain of communication between Glasgow, Edinburgh, Carlisle and the south.

The post offices of England and Scotland, which had previously been separated, had been united by the Post Office Act of 1711, and ten years later the service was greatly improved by the inauguration of the crosspost system which dealt with the problem of letters exchanged between one town and another without passing through London. The post was used by the Dumfries authorities for regular correspondence and in particular for keeping abreast of the news, for as long ago as 1703 the burgh council had arranged with the general postmaster in Edinburgh to send them ". . . two London Gazetts, three flying posts and Postscripts and two Edinburgh gazets weekly . . ."[1]

This was a satisfactory working arrangement in times of peace but the rebellion of 1745 disarranged the posts.

1 J. M. Corrie. "The Dumfries Post Office," p. 14.

Joyce in his "History of the Post Office"[2] writes that it brought into vogue the system of expresses; and this system once established was not long in extending itself. There were, however, certain restrictions attached to their employment, but intelligence "for His Majesty's immediate service" was allowed to be sent by that means. That the system operated with some success throughout the rebellion is clear without a doubt.

On 4th September, 1745, Prince Charles Edward, with a considerable force of Camerons, Macdonalds and other clansmen, entered Perth and the magistrates of Dumfries sent off messengers to Edinburgh and Glasgow for the purpose of obtaining reliable information regarding the rebel movements.[3] At the same time Mr John Goldie, Sheriff-Depute of Dumfriesshire, entered into a correspondence on the subject with Dr Waugh, Chancellor of Carlisle, who forwarded Goldie's reports to London.[4] By means of their own expresses and copies of the Edinburgh Evening Courant the magistrates obtained intelligence from the north three or four times a week, and Giles Mounsey in his "Authentic Account . . ."[5] records the receipt in Carlisle, between 13th September and 1st October, of seven letters from Mr Goldie, together with two enclosures from Glasgow and one from Edinburgh. The last enclosure was written on "Tuesday Morning, 8 o'clock," on 17th September, the day the Prince entered Edinburgh, and this news Mr Goldie's agent duly reported. Goldie's covering letter was dated "3 in the morning, 18 Sept." Three days later the Highland army defeated General Cope at Prestonpans.

2 Herbert Joyce. "History of the Post Office," 1893, pp. 181/2.
3 M'Dowall. "History of Dumfries," p. 529.
4 Accounts for expenditure incurred during the rebellion by the deputy mayor of Carlisle include, "for expresses to Scotland and England . . . £2 9s 6d," and "for intelligence and expresses from Edenbrough [? Dumfries.] etc. . . . £13 10s." Ref. R. C. Jarvis, "The Jacobite Risings of 1715 and 1745," pub. 1954. Jarvis notes on page 388 that there are many contemporary references of a like nature.
5 G. G. Mounsey. "Authentic account of the occupation in 1745 by Prince Charles Edward Stuart," 1846.

THE JACOBITES DEMAND CONTRIBUTIONS

The Prince was now master of the situation but he was in urgent need of money which he planned to raise by stenting all the burghs. Therefore Secretary Murray ordered provosts of burghs to repair to Holyrood to settle the amounts of the contributions to be paid by them. Murray's peremptory order to the Burgh of Dumfries was dated 26th September[6] and threatened dire penalties for non-compliance, but the only action taken by Provost George Bell[7] was to inform the Secretary of State in London and then to await his instructions. Bell also circularised all his correspondents in England, amongst whom were Marshal Wade in the Midlands, the Duke of Queensberry at Bath, and his friend George Clerk of Dumcrieff who was then at Durham and a volunteer in General Oglethorpe's Royal Hunters.[8]

In due course a second demand was received by the Dumfries authorities who, at a meeting held on 21st October,[9] again refused to stent the burgh, and it seems that they were counting on the impending approach of Wade's army to protect them from Jacobite reprisal. The news of this decision travelled up the grape-vine into England and by 26th October had reached Penrith where a gentleman wrote as follows to a friend in Kendal . . . "From Dumfries we are advised that their Apprehensions there are considerably abated. They are determined to pay no Contribution unless there be no possibility of Security upon their Refusal, but the Approach of His Majesties Forces has put them into high spirits and a loyal Spirit

6 A contemporary copy of this order is among the Clerk of Penicuik MSS., 5245. M'Dowall, *op. cit.*, page 533, prints the order in full.

7 Provost of Dumfries in 1744, 45 and 46. See M'Dowall, *op. cit.*, page 556, for notes on Bell's career.

8 George Clerk or Clerk-Maxwell (1715-1784), third son of Sir John Clerk of Penicuik (1676-1755). See R. Chambers, "Biographical Dictionary of Eminent Scotsmen." George and his wife Dorothea were living in Dumfries in 1745. He left Dumfries on 21st September for York, where he joined the Royal or Yorkshire Hunters.

9 M'Dowall, *op. cit.*, p. 533.

manifests itself in a remarkable manner . . ."[10]

On 31st October the Prince concentrated his army and in order to mask his intentions divided it into two columns He spent that night at Pinkie House near Musselburgh and next day marched with his column to Dalkeith. Whilst there, on 2nd November, he sent a third summons to the Provost, Bailies and Council of Dumfries, requiring them " to raise and levy all cess due to his Majesty," which was to be handed over to his collector on 10th November. The document was signed by " Charles. P.R." himself and it was again ignored by the Council, though quartering and poinding was the penalty for failing to obey.[11] This was no idle threat as the people of Dumfries were soon to discover to their cost.

On 3rd November the march south of the rebel army began in earnest and the western column under the Dukes of Atholl and Perth marched by Peebles, Broughton and Moffat which they reached on 5th November. That same day, " 8 at night," Provost Bell passed this information on to Chancellor Waugh, begging him to despatch expresses to Penrith, Kendal, Lancaster and Whitehaven.[12] The Highlanders continued their march and passed through Lockerbie where a party of inhabitants from Dumfries, which had been left unmolested, raided the Prince's baggage train, a reckless deed which in due course the town had cause to regret. A week later the Highlanders were at Carlisle and thenceforth till the end of the year when the Duke of Cumberland recaptured the city the postal service in the west country was disorganised.[13] However the post between Dumfries and Edinburgh began to operate again, while it is recorded that expresses from Carlisle were from time to time despatched with important news which was delivered in spite of the proximity of the rebel army.

10 D. Nicholas. "Intercepted Post," published by the Bodley Head in 1956, to whom I am indebted for permission to quote.
11 The original document is in the Dumfries Burgh Archives.
12 Mounsey, *op. cit.*
13 E.g., the postmaster of Lancaster left the town after the entry of the rebel advance guard, and this news he reported in person to Wade at Durham the same night. Clerk of Penicuik, 3254.

THE HIGHLANDERS IN DUMFRIES

The Prince reached Derby on 4th December and two days later the retreat to Scotland began. On Friday the 20th he was marching along the old road to Annan where he slept that night, and on Saturday the 21st arrived at Dumfries whence he departed the following Monday. On the Sunday Mr Duncan, minister of Lochrutton, entered in his journal . . . " A melancholy day—the rebels in Dumfries—about 4000, with the Pretender's son at their head, in great rage at the town for carrying off their baggage from Annandale, and for raising volunteers, and calling out the militia of the County in defence of the Government . . . demanded £2000 sterling of contributions . . . and that they convey their carts, with their carriages after them, to their headquarters. They were most rude in the town . . . pillaged some shops . . . pulled shoes off gentlemen's feet in the streets . . ."[14]

On Tuesday the 24th Provost Bell wrote to George Clerk who was then with the Duke of Cumberland's army which had surrounded Carlisle of which the rebels were still in possession. Bell gave a short account of the Highlanders' visitation and reported that they had left Dumfries and were intending to march to Glasgow. It is presumed that this information was passed on by George Clerk to the Duke. This letter, together with a number of others posted from Dumfries between 3rd October and 24th December, follows hereunder. Hitherto unpublished, they add something to the story of Dumfriesshire and the " Forty Five."

LETTERS FROM DUMFRIES

(A) 3rd October, 1745. George Bell, Dumfries, to Marshal Wade.[15]

Bell informs Wade of the Prince's order for him to report to Holyrood and that he had heard from the Provost

14 Sir Herbert Maxwell. " A History of Dumfries and Galloway," page 325.

15 National Library. MS. 302. Enclosure No. 4.

of Glasgow who had compounded for £5500 of contributions instead of the original demand for £15,000. "They were still in fears as 4000 Highlanders were to pass the Forth this week and its uncertain but they may pass this way into the north of England to meet the Army from Edinburgh when they take their rout. I beg this may be represented to the Genls that have the command of the Army. Our troubles are but beginning. What pity is it there are not Forces to oppose these in their Audacious Proceedings. I am obliged to abscond, but shall take care to appoint a Friend to advise anything material."

"I ever am, Dr Sr,
yr m[ost] hum[ble] servt, G. B."

(B) 13th October, 1745. George Bell, "Dornick," to George Clerk at Durham.[16]

"I received your very acceptable and esteem'd favour from Durham wch gave me great pleasure to find you was agreeably surprised in meeting with the Barron[17] and others of your freinds."

"No doubt you will have heard of the letters sent to the provosts of burrows in Scotland for raising contributions, one of wch I received and wch I dispatched by a flying packet to His Majesty's Secretarys of State,[18] and begg'd to be advised how we were to act, consistent with our loyalty to His Majesty's person and Government and the safety of the Burrow, but as yet have received no answer. We are in daily expectations of a visite. The Highlanders give out that they are to march into England about a fortnight hence, and if they don't go by Dumfries they will send a column to raise the contributions but ther's no dependence or faith to be given to any thing they say."

16 Clerk of Penicuik, Edinburgh Record Office. Box 123/3250.

17 Sir John Clerk, Baron of the Exchequer, had left Mavisbank, his house near Edinburgh, when the Prince first entered the city, and "took up his place of exile" at Durham. Scot. Hist. Society. "Memoirs of Sir John Clerk."

18 In Yorkshire the more startling news was sent to the Secretary of State and many letters with intelligence were copied and circulated in the county. Cedric Collyer, "Yorkshire and the 'Forty Five'," Yorkshire Archæological Journal. Vol. XXXVIII. (1945), p. 72.

"I advised His Grace the Duke of Queensberry from time to time of the progress of the rebells. His Grace did me the honour to write me a letter with the greatest spirit of loyalty, and how as matters are become more serious, he is gone to London and offered his service to His Majesty and was most graciously received, but was told as affairs now stood nothing could bee done in our countrie."[19]

"As to our contribution we are resolved not to give it to any smal partie unless compell'd by a considerable force, for reather than give a penny in submission to their arbitary and lawless authority we will run the risque of a pound by compulsion, and its probable a happy event may fall out if His Majesty's forces come soon doune. That may oblige the rebells in thinking on something else than raiseing of such contributions. A great many touns near Edinburgh have been obliged to submitt, and the rebells have appointed persons to levey the Land Tax near Edinburgh and other places, but nothing of that kind has happened with us."

"Edinburgh has been pretty quiet since the blockaad was taken off the Castle and provisions alow'd to be taken in, only whenever a Highlander appears within reach he is sure of a blast."[20]

"I came here a few days ago for safety as I am not at all so at Dumfries, and in case ther's a necessity for my returning I can doe it, or if I'm in danger here I can soon step over to Carlisle.[21] In the mean time I'm well advised of what passes at Edinburgh and receive my letters coming and going this way, haveing an order to open the bagg, and by that means have it in my power, as I dont miss one post, to advise all my corrospondents thro the diffrent parts of England of the intelligence I receive, and so send my returns

19 See Appendix.

20 On one such occasion some Highlanders, who were attempting to dig a trench, came under fire from the Castle and were obliged to desist.

21 Chancellor Waugh had previously invited Mr Goldie to take refuge in Carlisle. Goldie, in a letter to Waugh dated 1st October, wrote: "If a party [of rebels] come here, your humble servant must retire . . . ."

regularly to Dumfries. I offer my most respectfull compliments to the Barron and any others who are my acquaintances with you, and am with the greatest regard, Dr Sr, yrs G. B."

(C) 17th October, 1745. "W. C." who is unidentified, Dumfries, to George Clerk at Durham.[22]

"W. C." sends George Clerk a résumé of the news from the north, reporting the arrival of a French ship at Montrose, the quartering of the rebels round Edinburgh, and how two clans at Craigmillar had quarrelled and were drawn up in line to fight each other "but unluckyly some chiefs from the Abey came in time to make an agreement. . ."

"Lords Nithsdale, Kenmore,[23] Capt Maxwell of Carruchan,[24] Gribton's eldest son,[25] and Lady Barroncleugh's Cupid[26] was at Lintoun yesternight on their way to join them. 'Tis thought they will not stir from Edinburgh but there expect the King's army, but 'tis almost impossible to form a judgement of their designs. When a party of them is sent to the country they amase the people with asking the roads, and telling they're going to different places which keaps us in constant alarms. The post just going away. I am, Dr Sir, your W.C."

(D) 22nd October, 1745. George Bell, Dumfries, to Marshal Wade.[27]

This letter was signed by "Geo. Bell, provost," but the rather effusive contents were written and perhaps composed by a clerk or friend of the provost. The long preamble promising support to the Protestant government, with many offers of help and protestations of loyalty, is omitted.

"We have hitherto given no obedience or show'd any intention to give Servile Complyance with the Menacing

22 Clerk of Penicuik. Box 123/3246.
23 Nithsdale and Kenmure reached Holyrood on 18th October.
24 William Maxwell of Carruchan who acted as chief engineer at the siege of Carlisle.
25 James Irvine, younger, of Gribton.
26 William Maxwell, son of Maxwell of Barncleugh.
27 National Library. MS. 302. No. 22.

letters sent us for Contribution, and if an arm'd force should follow us, as we daily expect, to Demand it, we have spirit and hearty inclination to resist and opose it to the utmost, had we ground to hope for any assistance from His Majesty's Forces, whom with the greatest pleasure we see coming northward under your Excellency's Command, in case we should be brought to Extremity by a superior force . . ." (Follows more protestations of loyalty which are omitted.)

"For our part in this Corporation we have taken all imaginable care to obtain the best intelligence as to the numbers, motions and designs of the Rebells, and to communicate every thing we could learn that was of importance to our friends in the northern Countys and Touns of England, and nothing still in our power to Doe shall yet be wanting for the publick good."

(E) 1st December, 1745. Dorothea Clerk, Dumfries, to George Clerk, with Marshal Wade's army.[28] The second half of this letter, in which Dorothea voices her anxieties about the rebellion, is omitted.

Dumfries. 1 Decr.

"Dear George,

I take this opportunity to let you know we are all well. I wrote last week by way of Edr and hopes by this time it is come to your hand. You have been very oblidging of late in letting me hear often from you. I wish it were in my power to write as oft, but we have had no body going your way this long time, and till last week I did not know your direction. The Highlanders are now a great way from us and no doubt you know all theire motions.[29] You have got of very well at Dumcrief, for except twelve horses and theire riders you had quarter'd on you they did no more harm. They carryed none of your hay to Moffat and as for your horses James and they were wisely fled . . ."

"Your affectionate wife,
D. C."

28 Clerk of Penicuik. Box 123/3251.
29 On 1st December the Prince was at Macclesfield

(F) 24th December, 1745. "½ past 4 o'clock in the morn ing." George Bell, Dumfries, to George Clerk at Kingsmuir near Carlisle.[30]

"Your favour of the 23rd from Kingsmuir of yesterday's date gave me infinite pleasure. I am now to advise you that I have been in exile since Saturday morning about 4 o'clock and came home last night."[30a]

"The rebells with their leader came to this toune on Saturday last. The Horse came first about day light and the Foot (with whome man they call their prince) came through the whole day untill day was near gone. He walk'd on foot all the way. God be thanked, that hellish and ungodly crew left this place yesterday. The toun was clear of them before eleven of the clock. Its thought there might be near about three thousand. They have done a world of mischief here. [They] ordered the toun to pay £2000, 1000 pair of shoes and to carrie the baggage that was brought in from Lockerby to their army, besyde to have free quarters wch has been very havey on many poor people who are utterly ruined. The particulars I have not time to enter upon so as to give an account thereof. We have paid £1100 wch was all the money to bee got in this poor toune, and the shoes, and they have carried Provost Crosbie[31] and Wattie Riddle[32] along with them for hostages and for our good behaviour as they call it. God Almighty prevent us from ever seeing such guests again. Its next to impossible to describe the condition our people were in."

"Pray God send the Duke and M. Wade's armys to come up in time to relieve this poor country. I'm afraid

30 Clerk of Penicuik. Box 123/3250.

30a Compare Bell's version of his "exile" with M'Dowall, *op. cit.*, p. 538, who writes that the Provost had been seized as a hostage that the Burgh would keep good faith with the rebels. M'Dowall must be wrong, as it seems fairly obvious that George Bell had "absconded." I am indebted to Mr A. E. Truckell for searching the minutes of the Burgh Council and he writes that Bell attended a meeting on 16th December but was absent from a meeting in Presbytery House on the evening of 21st December. The minutes contain no reference to hostages, nor to George Bell or anyone else having been taken away.

31 Andrew Crosbie of Holm. Provost in 1738, 39 and 40.

32 Walter Riddell of Glenriddel, one of the Dumfries town councillors.

affairs will become worse and worse. Its said the rebells at Perth have passed the Forth to a considerable number, some say many hundreds, at Higgens Neuck 5 miles below Stirling, haveing brought boats for that purpose from Perth. I have a letter just now from a very good hand at Edinburgh confirming the above, but says they are uncertain of their precise numbers, and whether its with design to joyne their freinds from Carlisle or in expectation of their coming northward."

"The rebells who were here said they were to go to Glasgow, and from thence they were to meet their freinds from Perth and attack Stirling now as they had cannon for that purpose. Then to proceed for Edinburgh and attack the Castle which they said they hop'd soon to be master of. Then they were to crown their prince, declair the union void and proclaim war agst England, and so to push their way again south ward which God in His providence prevent."

"If we can render His Highness the Duke of Cumberland's army any service by sending horses, ordering forrage upon the road which they are to pass, or otherwise, pray communicate our inclination and advise us accordingly, and all manner of dispatch shall be given. And if the army or any part come this way pray send off an express before hand, that provision may be made. Pray excuse this confused scrawl, being just out of sleep and haveing got very little rest for some time past. My compliments to all freinds with you, who am, Dr Sr, Your most affect. humb. sevt, G. B."

[P.S.] "I have disturbed Mrs Clerk to obtain the enclosed."

APPENDIX

When the rebellion broke out the Duke and Duchess of Queensberry were at Bath where the Duchess was drinking the waters. Whilst in England the Duke was kept informed of affairs in Scotland by Sir John Clerk of

Penicuik who was one of his trustees. Two of the Duke's letters in reply to two from the baronet are recorded hereunder. The first letter, dated 14th September, was addressed to Sir John who, on that date, was then in Edinburgh. The second letter, dated 5th December, was also addressed to Edinburgh where it was received by the baronet after his safe return to Scotland from his "exile" in Durham (See note 17).

14th Sept., 1745. Letter from the Duke of Queensberry at "Lincome near Bath," to Sir John Clerk in Edinburgh.[33]

The Duke thanks Sir John for news, deplores the fact that some people of family have joined the rebels, and heartily wishes the "young gentleman who has ventured to make this daring attack upon us may meet with a total overthrow before any of his foreign freinds land upon our coasts (if there is any intention, which I conclude there must be). For my self, I believe I need not make any professions. There is no body who knows me, who will doubt of my attachment to the Royal familly on the throne as the only security of our religion and liberties, and it is amazing to me how any protestant can think otherways."

5th Dec., 1745. Letter from the Duke of Queensberry in London to Sir John Clerk in Edinburgh.[34]

The Duke acknowledges Sir John's letter of 26th November, informing him of Sir John's safe return to Edinburgh.

"At such a time as this I do not wonder that you took it for granted that you would see me soon in Scotland after you was inform'd of the offer made to raise regiments there, but it so happens that the proposal is rejected, tho' very well received by the King, and except the 2000 men to be raised by Edinburgh and Glasgow, I do not hear of any other expedient substituted in its room. The behaviour of some folks in the government of our country puts me

33 Clerk of Penicuik. Box 123/3252.
34 Ibid.

in mind of a story I have heard of a fellow returning home very drunk from a contested election for some burrough here, who fell into a ditch and was in some danger of being smother'd. A man passing by offer'd to help him out. The drunken fellow ask'd him which way he had voted and finding they had both voted on the same side, said it was very well it happen'd so, for otherwise he swore bitterly he would have lain there to eternity rather than have been help'd out by him. We are in hourly expectation of hearing news of importance from the Duke's army which by the last accounts was within a very few miles of the rebels. I hope we shall soon here of their defeat . . ."

ARTICLE 18

Some Memorials of Goldielea

By Miss E. BALFOUR-BROWNE.

" Romance exists . . . strictly speaking, in Reality alone "
—T. Carlyle.

In the early days of the history of Caledonia, perhaps before the Roman invasion, a camp was erected on the hill behind the site of Goldielea house. Whether it was a permanent or temporary post of defence, it had a fine position at the head of a precipitous slope, high above the burn. Access to the camp was made earlier or later by a deep trench. Whether the little " circle " of stones not far off on the Lochanhead moor side had any connection with the holders of the camp is not known.

In less remote days the land below and near the camp formed part of the possessions of the Abbey of Lincluden. Probably not of the Nunnery which was the earliest religious settlement on the Lincluden site, but of the College of Secular Canons by which Archibald the Grim, Lord of Galloway, replaced that institution in 1389. The lands of Holm as they were then named are mentioned in a document signed by the last ruler of the College.

After the Reformation, the lands were secularised and the name of the owner is not clear until the beginning of the 18th century when in 1720 the land was purchased by a Provost of the Burgh of Dumfries, one John Crosbie.

At that time the estate bore the name of Holm of Dalskairth—Dalskairth being an adjoining estate. There would seem to have been *two* Holms of Dalskairth. It has been suggested an Upper and a Lower; the Upper being the old Abbey lands now Goldielea; the Lower now Dalskairth having no such vague traces of sanctity. For in the early 17th century Dalskairth was held by a Maxwell who figures in Pitcairns Criminal Trials, and for years the place belonged to Griersons of the same family as the hated Persecutor.

To return to the Provost.

Having occupied the Holm for some years Crosbie died leaving his estate to his son, who in his turn became chief magistrate of Dumfries. When his turn of office was over, the Burgh and its ex-provost had an unpleasant experience. It was the end of 1745 and the Highland army under Prince Charles Edward Stuart retreating after its remarkable advance to Derby, occupied Dumfries. The rebels were in need chiefly of cash and footwear. The town was adjudged to provide immediately £2000 and 1000 pairs of shoes. Before full payment was made, news arrived that King George's army under the Duke of Cumberland was advancing rapidly northward. Shoes or not the rebels showed a clean pair of heels. They took with them as pledges for the complete payment of the requisition Mr Riddel of Glenriddle and Ex-Provost Crosbie. Exceedingly uncomfortable must these two gentlemen have felt as they were hurried along the road to Glasgow amid a mob of Gaelic-speaking Celts and much anxiety must have been felt in their homes.

But the prisoners suffered no harm. The money and shoes being speedily sent after them to Glasgow, the hostages were set free and made their way back to Dumfries.

Five years later the Treasury seems to have paid the Burgh nearly £3000 as indemnity for losses during the rebel occupation.

The third Crosbie to possess the Upper Holm of Dalskairth looked higher than his forebears. No burgh business for him. He went to Edinburgh and joined the Scottish Bar and being an able man and ready talker, became in time Dean of the Faculty of Advocates. Dr Alexander Carlyle mentions Crosbie as a member of the popular Poker Club in Edinburgh and speaks of his good inflammatory speech when rousing Dumfries opinion against a candidate for the Provost-ship.

Crosbie placed a considerable sum of money with the Douglas Heron Bank in Ayr, but lost it through the Bank's early failure.

Crosbie was pleasure-loving and extravagant and money slipped through his fingers. He was supposed to be the model of Scott's Mr Pleydell, the lawyer in "Guy Mannering," whom Mannering found one Saturday evening jovially presiding over the game of High Jinks. Crosbie was described as having "frolicked to ruin"—he died in 1785. He had added to his estate by the purchase of a few acres of the land of Drungans nearby from his neighbour at Dalskairth, but two years before his death he sold his whole estate. Crosbie left no children and his widow was granted a pension by the Faculty. Some of his Crosbie relations emigrated later to Ireland and also to the United States.

The new owner of the Holm was related to the Commisary Goldie whom Burns scoffed at. This Goldie held a commission in the army. When a young ensign stationed in the Isle of Wight he had courted a wealthy young Miss Amelia Leigh of North Court whose father was governor of Carisbrooke Castle. One morning the fair Amelia took an airing in her donkey carriage, but did not return home when expected. The donkeys grazed by the roadside, the little carriage was empty! The former occupant had been observed in a fast travelling chaise with a young gentleman—Ensign Goldie conveyed his ladylove to Gretna Green where they were married and so on to Galloway and the Upper Holm of Dalskairth where probably the bridegroom's parents were established. Such is the legend if not entirely in accordance with fact.

At any rate the Upper house of Holm was renamed after its new young owners "Goldie Leigh" in 1783.

There is still at least one Amelia in Dumfries whose name can be traced back to Amelia Leigh of North Court.

Ensign Goldie rose in time to be General and Commander of the Forces in Ireland. Only nine years after the Goldies' romantic arrival at Holm or Goldieleigh, they sold the place to Walter Riddel, a brother of Riddel of Glenriddel and Friars' Carse. Robert Burns was then at the

Ellisland farm and he soon made the acquaintance of the young Mrs Maria Riddel.

Walter Riddel dropped the name of Goldieleigh and called his house after his wife's maiden name Woodley, Woodley Park.

Many a time the poet rode out to enjoy the hospitality of the new owners of the Park. Perhaps it was at this time that the ice house was constructed in the homefield for the storage of winter ice for summer festivity. So easy to make, " every respectable habitation " should have had an " ice house." After a time Riddel had to go to the West Indies to arrange about the management of his property there. It was in the West Indies he had met Maria. On the owner's safe return to Woodley Park a dinner party was given there to celebrate the occasion. Alas and Alas!

The gentlemen, encouraged by a foolish host, dined " not wisely but too well," and when they rejoined the ladies were not in fit state so to do. Robert Burns entered the drawing-room in a high state of excitement and grossly insulted his hostess.

He never crossed the threshold of the house again. His friendship with the Riddels of Friars' Carse was necessarily broken. Himself again, the poet suffered bitter pangs of remorse and implored forgiveness, laying some of his blame on Walter Riddel. Maria was implacable.

Burns then hardened his heart and mocked at the lady he had insulted, fastening impudent verses to her carriage when it was in Dumfries. After a time there was a partial reconcilement. When later Burns in very poor health was seeking betterment at the edge of the Solway in 1791, Mrs Riddel was staying in the neighbourhood, though not at Woodley Park, and she met the poet in friendly fashion. Just over two weeks later Burns was dead.

> He was a man all fire and sweetness too,
> His life was spilt on earth—but God is just;
> He'll know His own, and this man, God he knew.

Woodley Park had been advertised for sale two years earlier. It was whispered that though Riddel might have laid out a little money on the place he had never paid its price

The estate is then found once more in the occupation of the Goldie family, having resumed its name of Goldieleigh.

Ten years later General Goldie died at the age of 54, a much respected man. He left a numerous family (two of his sons became generals). He bequeathed Goldieleigh to his eldest son Col. Thomas Goldie who had already acquired property in the neighbourhood. In his long Will the General arranged for tutors and curators for his younger sons to "complete their education and fit them out."

Three years after the death of General Goldie a crime was committed not far from his house which created a great sensation in the neighbourhood and for a time afterwards was described in jingling verse by wandering singers at fairs. A man Maitland Smith, living at a small tavern in Dumfries, had appropriated to his own use certain moneys entrusted to him and was in fear of exposure. One day, armed with pistols, he followed a prosperous looking, slow going horseman along part of the Dalbeattie road from Dumfries. The rider, a garrulous body, kept his horse at a walk so that he could chat with the pedestrian. Going up the Long Wood Smith fell back a step or two and grasped a pistol—but thrust it back! They stopped at a farm entrance—a young woman from the farm joined them and they went on. Near Drumjohn the horseman turned into a field to inspect stock. Smith followed him—a pistol was discharged—the horse sprang forward and its rider fell to the ground dying. Smith rushed upon his victim and rifled his pockets and then apparently panic seized him, for he left the saddlebags unopened and ran for his life. Within an hour he was found hiding in a dry ditch and seized by men from the farm. He put up no resistance, and showed every sign of remorse for his action. He was brought to

trial and suffered his just punishment before Dumfries Prison in Buccleuch Street. (There was a description of the circumstances in the Winter Gallovidian of 1901.)

In 1817-18 Goldielea passed out of Goldie hands. Mrs Amelia Goldie (in spite of the romance of the donkey carriage and Gretna Green) had married again after the death of the General, married a naval chaplain, the Rev. David Lloyd, but she received a substantial annual income from the Goldielea estate and lived for many years. Some of the Goldie daughters lived in or near Dumfries. One of their brothers married an heiress of the Taubman family in the Isle of Man and a descendant now lives in the ancestral house at Douglas.

Goldielea had been sold to one Robert Maitland who had a brother living in Dalskairth. Whether he found the Border sombre after having resided in the United States, or whether he did not agree with his neighbour, he soon went away, selling the place to a local gentleman Col. William Newall Maxwell who owned a small property in Holywood and had been living at Steilston.

It is interesting to note the customs which were observed in these days at the transfer of land. The Sasine or transfer ceremony went thus: The attorney of the party giving the right produced his warrant of title and gave it to the representative of the other party who gave it to the notary to be explained by him to witnesses and then the first party delivered *earth and ground,* that is part of the very soil, to the other in presence of the witnesses (the symbol at the transfer of a mill was a clap and hopper). The notary then drew up an instrument reciting what had been thus done which was signed by the notary and two witnesses. Handfuls of grass or corn represented teinds.

Colonel Maxwell lived in Goldielea for a number of years. He seems to have been a good friend to the Nithsdale local Militia or Volunteers who presented two salvers to him and his wife. Maxwell appears to have been rather harassed about his will, writing codicils, cancelling codicils,

making a list of legatees, writing another list to be added to it, and so on.

He died in 1848 and his large ugly tombstone stands in Holywood churchyard. When did the custom pass of adding little commendations after the name of the deceased on their stones?

Goldielea was left by Col. Maxwell to a kinsman, James Newall. Two years later the affairs of the estate were placed in the hands of the British Linen Company. Great changes had taken place all over the country, beginning just before the Maxwells bought Goldielea. Iron roads or railways had come into existence. The first Act of Parliament to authorise such an undertaking was passed in 1821, giving permission for the construction of the Stockton and Darlington line. This was the first line in the land.

The next was the railroad from Liverpool to Manchester in 1830. The country was full of railway schemes and railway speculations and between 1845-46 there was an absolute railway mania. The Border shared in the general excitement. An iron road to the west through Galloway was mooted. The route? Of course, by the pass of the Long Wood. But eastward lay the glen with its mansion, its millpond, its burn. A bridge—a mighty bridge to span the glen! The line was decided upon. Its route cut right across Goldielea estate, and the line was carried behind the house by a fine sandstone viaduct, ninety feet high at its highest point. The then titular owner of the estate accepted from the Castle-Douglas and Dumfries Railway Company the sum of £8000 to cover all compensation and damage. A subsequent proprietor remarked that had he been in possession at the time, the company would certainly have had to pay far more substantial damages. But there it was, the agreement was made, the requisite land taken over, the viaduct built and the line opened in 1857, the year of the Indian Mutiny.

Four years later Mr Newall died suddenly on his way to Newton-Stewart in one of the new railway trains. One

of his sons painted some water colours in 1867, showing Goldielea house and lake, with a mill and outbuildings, then standing near the approach road, and these pictures were later photographed.

After some years the widowed Mrs Newall sold Goldielea and its lands to Mr Walter Scott, mill owner in Dumfries, who let the place first to Mrs Shaw Stewart and then to Edward Cliff, Esq. The old mill was pulled down, the stables also and these latter were rebuilt on the other side of the viaduct from the house, and some improvements were made in the mansion house.

In 1891 Scott sold Goldielea to the late Mr J. H. Balfour-Browne, Q.C. He added to the house and enlarged some of the furtive little windows.

Only twice in its history has Goldielea been occupied by one and the same family for a substantial number of years. In the 18th century the Crosbies held the Upper Holm of Dalskairth for more than 70 years. For more than 70 years in the 19th and 20th centuries the Balfour-Browne family have held it and so far they have not "frolicked to ruin."

* * *

The work on which this sketch is founded was undertaken by Margarey Balfour-Browne who died in 1919. Interrupted by the war she had still studied "deeds," "sasines," "retours," "clare constats," had corresponded with antiquarians and others, and had written pages of notes. What she would have made of them is not known, but it seemed a pity that those who knew Goldielea should not have an opportunity, even given by a superficial hand, to interest themselves in the results of her diligence.

ARTICLE 19

A Group of Separate Cup-and-Ring Marked Slabs in the Cairnholy-Auchenlarie District

By A. E. TRUCKELL, M.A., F.S.A.Scot., F.M.A.

Professor Piggott, in his report on the excavation of Cairnholy I. cairn in 1949 (P.S.A.S., LXIII. 103 et seq.), remarking on the unique nature of the cup-and-ring marked slab set up as a stele with the intrusive Food Vessel burial, points out that, although a few are known on cist covers, cup-and-ring marks other than on the native rock are decidedly uncommon. The purpose of this note is to describe the several finds of such markings on free slabs within a mile or two of Cairnholy, forming a group without close parallel so far as is known. As many of the finds have clearly been moved from their original sites it cannot be said with certainty how many have in fact been cist covers—though most are too small for this—or even set up within cists as in the Cairnholy example. The markings on these loose slabs give us a good cross-section of the local repertoire, with a tendency for the markings on the loose slabs to be rather above the average in complexity. There is one "odd man out," the sandstone slab at Kirkclaugh stables: sandstone does not occur locally—it is probable that the nearest outcrop is at the Dee mouth, in the heart of another great concentration of cup-and-ring marks—and the markings are quite atypical, being halfway between cups-and-rings proper and the spiral markings often found picked on stones in Bronze Age times: the R.C.A.M. Dumfriesshire volume indeed shows rather similar markings on a slab, again on sandstone—but this time in an area where that stone was easier to obtain—at Hollows Tower, Canonbie (fig. 1): that slab is three feet long by one foot seven inches wide at the centre. It is likely that it came with the stone for the tower from Whita beside Langholm—and a Food Vessel cist burial is known for that area. Apart from the Canonbie example no Bronze Age markings of any kind are known

Fig. 1—(Hollows Tower, Canonbie).

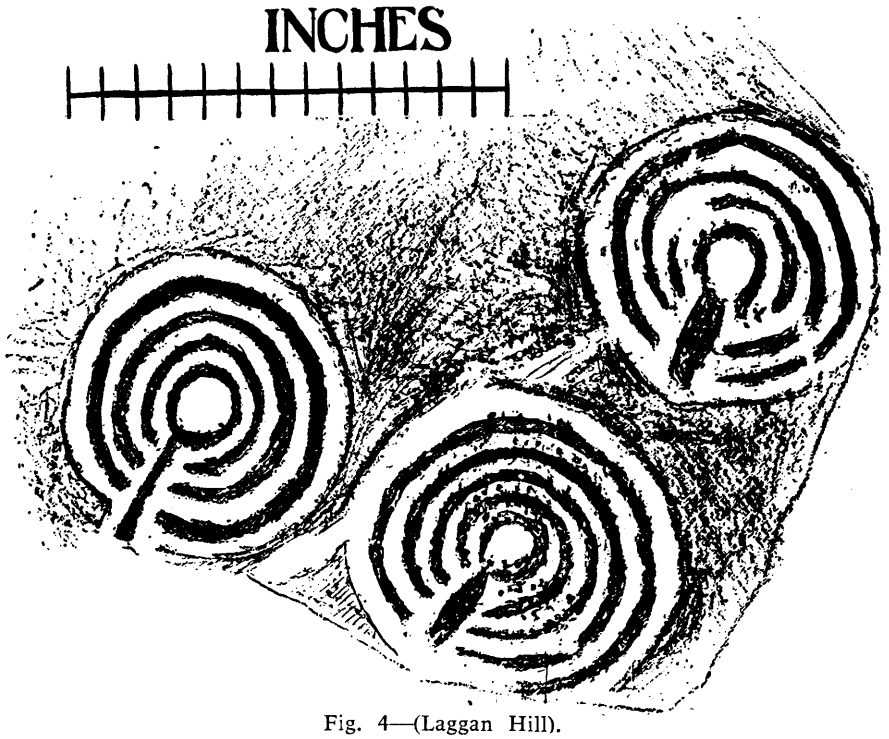


Fig. 4—(Laggan Hill).

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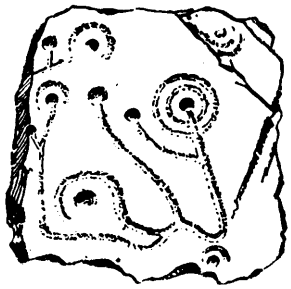

Fig. 3—(Bardriston).

Kirkclaugh

High Auchenlarie

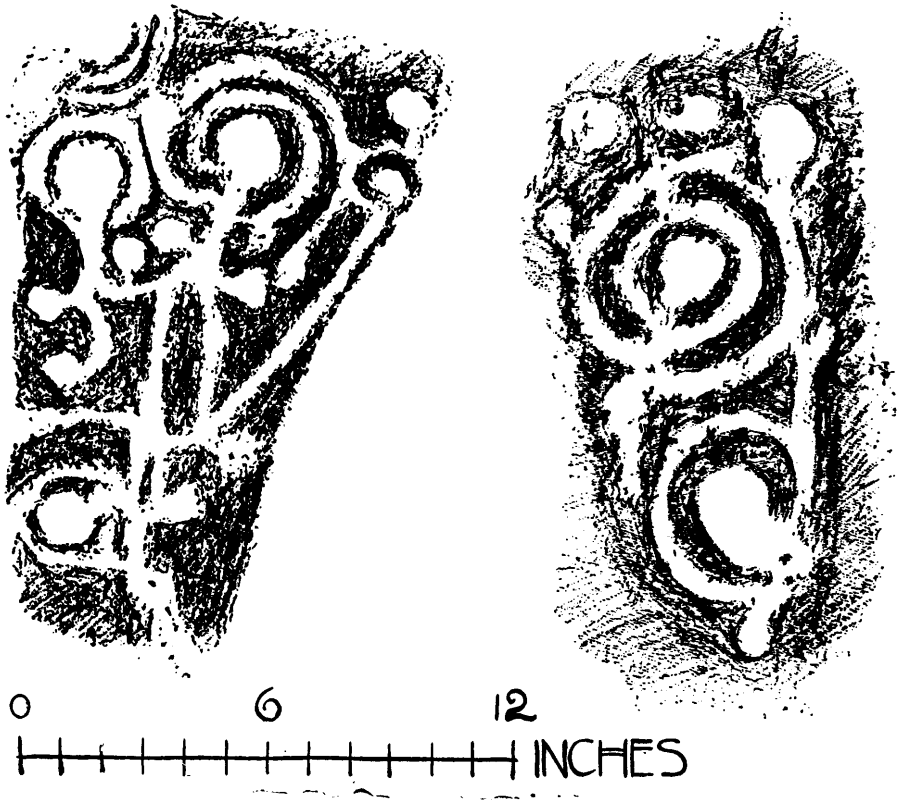

Fig. 7.

for our area east of the Dundrennan-Auchencairn district. The Kirkclaugh example clearly had been " in use " somewhere in the immediate neighbourhood—within a mile or so, anyway, of Kirkclaugh House.

There are one or two examples of cup-and-ring markings on loose slabs from elsewhere in Galloway: an example is recorded from the chambered cairn, Mid-Gleniron No. 1, near Glenluce, some twenty miles in an air-line to the N.W. of Cairnholy: Coles gives an example from the cairn at Conchieton in Borgue parish, nearly fourteen miles S.E. of Cairnholy, but the R.C.A.M. Inventory is rather doubtful of the artificial nature of the Conchieton markings. Coles also mentions a cup-and-ring marked stone from one of the two High Banks cairns, some 12 miles S.E. of Cairnholy—both these cairns contained Food Vessel cists—but the R.C.A.M. does not mention this at all. It seems therefore that the concentration of loose slabs with markings in the two miles or so around Cairnholy stands very much alone even within the Galloway cup-and-ring mark areas—these loose slabs are situated, of course, in one of the densest concentrations of markings on the native rock, second only to the Kirkcudbright-Dundrennan group. A list of the slabs follows:

(1) Small stone propped upright, with intrusive Food Vessel burial in the chamber at Cairnholy I. (see Piggott, as above)—Fig. 2.

(2) Slab lying near South side of antechamber, Cairnholy I., with four or perhaps five concentric rings—very worn (see Piggott, ibid.).

(3) Royal Commission on Ancient Monuments Inventory, Stewartry of Kirkcudbright, Anwoth, No. 19 (Coles, Proceedings of the Society of Antiquaries of Scotland, vol. XXIX., p. 90)—Coles states " The Bardriston slab was removed from amongst the stones of an old drain in 1889 . . . . the evident attempt to square the stone itself; 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 Bardriston slab unusually interesting and valuable." Coles states that the stone was at Bardriston farmhouse, but the Commission could find no trace of it (fig. 3).

(4) R.C.A.M., as above, No. 20—Coles, ibid., p. 89-90: Coles says "found on a pile of stones on a stony, thorny, whin-grown slope near the base of Laggan Hill almost exactly 660 feet W.N.W. of the standing stones of Newton": the Commission calls it "a thinnish block of whinstone, pointed to one end"; Coles calls it "rudely shaped into a pentagon": it bears three cup marks, two surrounded by four concentric rings and the other by five. Two of the markings adjoin the edge of the stone: the other is joined to the edge by a tongue. Now in Cardoness House Garden. (Fig. 4).

(5) R.C.A.M., as above, also No. 20—in Cardoness House Garden—brought from Auchenlarie "many years ago"—a squarish block three feet by three feet four inches, with very varied designs (see fig. 5).

(6) R.C.A.M., as above, No. 22—at Lower Laggan Cottage—from a dyke on Upper Laggan Hill—17 cup marks, all but 5 surrounded with single rings and for the most part connected by channels: a thin angular block of whinstone two feet by one foot six inches (see fig. 6).

(7) R.C.A.M., as above—No. 23—built into the washing-shed at the stables at Kirkclaugh, on the interior of the North wall and just below the roof: a fragmentary slab of red sandstone seven inches by sixteen inches: it bears a number of cup-and-ring marks of unusual design, all connected by cup-and-ring marks—but see introductory section (see fig. 7).

(8) Thin slab, 18 ins. by 2 ins., found in 1960 by Mr Sproat in the bed of a shallow stream on Laggan farm: a particularly fine example (see fig. 8).

(9) The writer marked on O.S. 6 in. sheet XLVII. S.W., at the direction of the late Adam Birrell, a cup-and-ring-marked stone in the dyke on the East side of Kirkdale glen

Fig. 5—(Auchenlarie).

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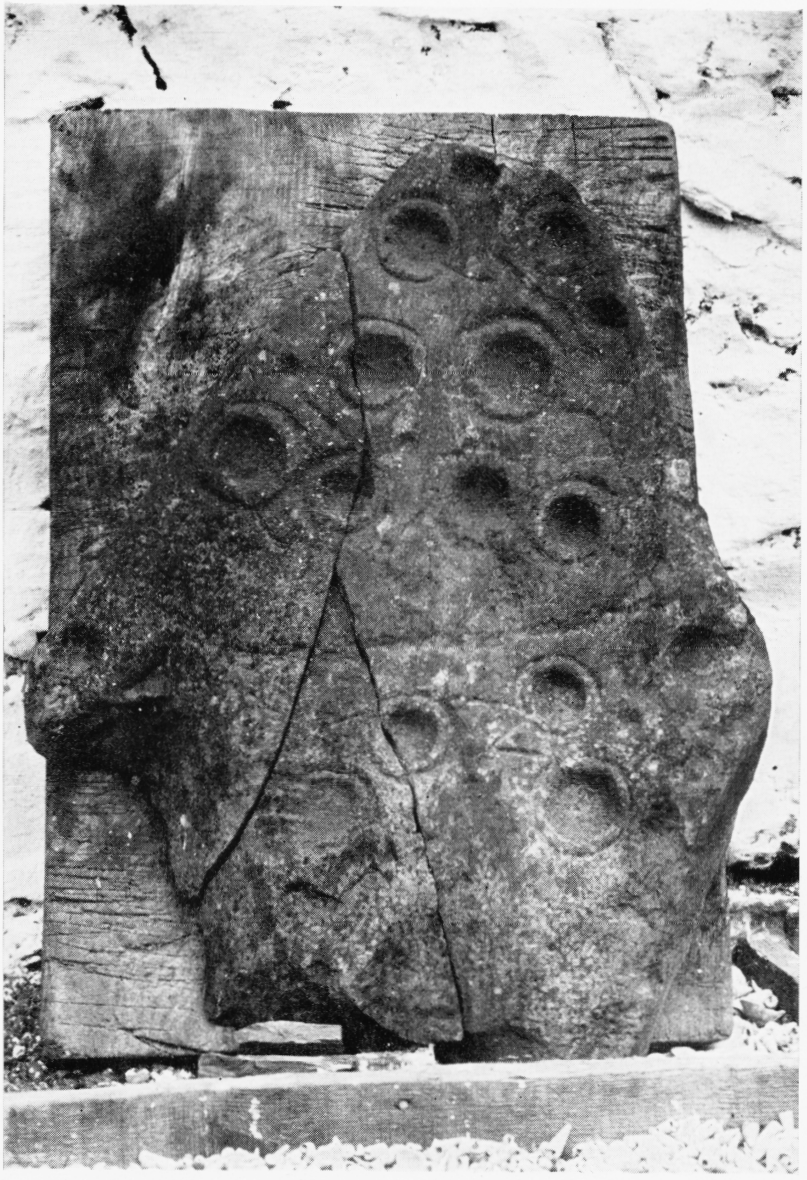

Fig. 6—(Upper Laggan Hill).

Fig. 2—(Cairnholy).

Fig. 8—(Laggan).

almost directly opposite and only a few hundred yards from Cairnholy I., and still nearer the robbed cairn sites between Cairnholy I. and the stream. Opportunity has not yet afforded to search the stretch of dyke. Birrell was an extremely accurate informant.

JOHN CLARKE

John Clarke was a local boy, born in Colvend and educated at Roughtree School, Irongray, coming in to school in the mornings in the back of the wagonette of which his father was coachman: graduating to Dumfries Academy, and thence to University, where he had a brilliant career, he returned for a time to teach at the Academy. Later, in the early 1930's, when Rector Critchley of the Academy retired, Mr Clarke was on the leet for the appointment. Appointed instead to Paisley Grammar School, he became famous for his educational work there, being awarded the O.B.E. in 1957, the year after his retiral owing to ill-health. After his retiral he became lecturer in humanity and education at Glasgow University.

Mr Clarke, however, achieved fame in another field also, that of archæology. Working through the 1920's on the Roman sites of the Antonine Wall under the tuition of the great Steuart Miller, he achieved top rank with his excavation of Cadder fort during 1929-33. Shortly thereafter he turned his attention to his native area, excavating at Milton in Annandale and at Durrisdeer fort in the late thirties with his typical meticulous care: the season at Milton revealed one of the first First-Century Roman occupations recorded till then for our area. Returning there immediately after the War, his many seasons elucidated this extraordinary complex besides bringing out his great qualities as a teacher. The main tasks there finished, he worked at Carronbridge, Craigmuie, and on the Roman road-systems of the upper Ken-Deugh and upper Nith, and the Roman fort at Bankhead near Kirkconnel, doing his last work at Milton only two summers ago—besides taking a leading part in the 1953 Summer School in Archæology held in Dumfries Academy Hall.

But it is as a man that we particularly remember him: sitting patiently in the rain in a trench at Milton, only the brim of his battered felt hat visible, concentrating on a tangled complex of section, until a lucid explanation appeared: tossing, tormented by his sciatica, on a camp-bed in Kirkpatrick-Juxta School among his students—for if they slept on camp-beds, so did he: walking, hands behind back, over a field at Dalswinton, concentrating fiercely on the tenuous outline of a marching-camp while two buck hares gambolled and fought about his feet, he ignoring them and they him: his gentle wry humour.

We shall not easily find his like again.

REVIEW

Richard Feachem is well known to many of our members, particularly those taking an active part in fieldwork; his paper on sites of the Iron Age and onwards in our area, delivered to the Society a few years ago, was one of the most interesting of post-war years, incorporating as it did the results of the re-survey of marginal land by the Ancient Monuments Commission.

Now Messrs Batsford have brought out, at 35/-, Mr Feachem's "Prehistoric Scotland," a compendious and very up-to-date reference book, compiled in the same form as the Commission's Inventories, and lavishly illustrated with photographs and plans.

It is laid out in sections: Early Settlements — Chambered Tombs — Henge Monuments — Homesteads — Hill-forts and Settlements — and so on; and it is pleasant to see how very strongly our Society's area is represented under almost all these headings, and to reflect that the Society has in fact had a good deal to do with the recording and identification of so many sites in the South-West.

This is, in fact, the perfect book to carry around with one—and, of course, covers the whole of Scotland too: it can be guaranteed to stimulate a lively interest—and more discoveries—and is very reasonably priced compared with the Inventories themselves which are now almost beyond the reach of the private individual.—Ed.

PROCEEDINGS, 1962-63

12th October, 1962.—The Annual General Meeting of the Society was held in the Ewart Library at 7.30 p.m., the retiring President, Mrs M. D. McLean, in the chair. The accounts of the Hon. Treasurer were adopted and the list of Office-bearers recommended by the Council was confirmed. Fifteen adult members were elected, and four junior members. The retiring President vacated the Chair in favour of the new President, Major-General James Scott-Elliot. The Presidential Address was given by Mrs McLean, entitled "From Jubilee to Centenary; The Society over the past Fifty Years." A report was published in the "Standard" of October 17th and 24th.

26th October, 1962.—Dr Denis McKay, a native of Dumfries, gave a lecture on "Parish Life in Scotland before the Reformation." Detailed records of parish life began in the beginning of the fifteenth century, and continued until the Reformation in 1560. In the Middle Ages there was no distinction between church and laity, churches being used for meetings, mortuaries and shops. Many of the parishioners never saw their priest as the church was often appropriated to a Cathedral or Abbey which appointed a Vicar-Pensioner and shared the emoluments with him. A relic of these times has continued to this day in many places, including Dumfries. The Parish Minister is recognised as a Notary Public when witnessing parishioners' wills.

9th November, 1962.—Dr Peter Barnett of the Marine Biology Research Station at Millport gave a fascinating talk, illustrated by coloured slides on "Animals of the Sea Floor." He outlined the zones of life in the sea, the tiny plants and animals on the surface, the predators in the middle reaches and the scavengers and predators on the sea-bed. Dr Barnett pointed out that not much was known of the animals of the Solway area, and that information would be welcome.

23rd and 24th November, 1962.—Centenary Celebrations. A Civic Reception was given to the Society by the Town Council on the evening of the 23rd November, when members were entertained by songs and dances. Many leading Antiquarians and Natural History Societies were represented at these festivities. On Saturday in the Council Chamber of the County Buildings, kindly lent for the occasion, there were four guest speakers. Professor M. F. M. Meiklejohn spoke on "Ornithology in the Twentieth Century"; Professor Eric Birley gave a lecture, illustrated by slides, entitled "The Investigation of Roman Dumfriesshire, 1862-1962." A vote of thanks to these speakers was proposed by Sir Arthur Duncan.

In the afternoon, C. Ralegh Radford, Esq., spoke on the "Abbeys of Galloway." This lecture was also illustrated with slides. The final lecture was given by Professor Stuart Pigott, and entitled "Scottish Pre-history, Retrospect and Prospect." A vote of thanks to the two speakers was given by Mr Angus McLean, a former President of the Society.

7th December, 1962.—The Meeting on this occasion took place in the High School, Marchmount, by permission of the Director of Education, and took the form of a Film Show. The Society had extended invitations to the pupils of the senior schools in the town. The following films were shown: "Rival Worlds—Pest Destruction in Africa," "Rivers of Time—Rivers of Mesopotamia," "Creel-fishing in Scotland," "The Romans in Britain."

18th January, 1963.—At this meeting, Mr W. F. Cormack, a member of the Society, gave an address on the excavations he has carried out at the pre-historic site at Kirkburn near Lockerbie. Finds included Neolithic pottery, Beaker pottery, food vessels and urns, two bronze blades, and two bone pins. Mr Cormack paid tribute to Mr Jackson, the farmer at Kirkburn, for his permission to excavate, and his interest in the finds. Nine new members and one junior member were elected at this meeting.

1st February, 1963.—The lecturer on this occasion was Dr J. X. W. P. Corcoran, of the Department of Prehistoric Archæology at the University of Glasgow, and his lecture, illustrated by slides, concerned the "Beliefs of the Pagan Celts." Dr Corcoran first sketched the development of Celtic culture, and then went on to describe the Celt as he fought, and as he worshipped. War was the most important happening in the life of the Celt, for he believed that to fight in this world was but a prelude to what would happen in the next. Indeed he believed so firmly in the afterworld that it was not unknown for debts to be contracted on the understanding that they would be repaid in the next.

15th February, 1963.—Mr C. K. Mylne, of the Royal Society for the Protection of Birds then gave a lecture, illustrated by coloured slides, on "Bird Watching in Scotland." These magnificent slides covered the life of the bird in all its aspects, both as to life cycle, and as to distribution of the various species over Scotland, and the effect on wildlife of the advent of the sightseer. This was particularly important in the life of the Osprey, a very rare visitor to these shores, and Mr Mylne's slides showed the elaborate arrangements made for the protection of this bird, and at the same time allowing the public an opportunity to see it.

1st March, 1963.—"Archæology and Ordnance Survey" was the title given to the lecture by Mr A. L. Rivet, Assistant Archæ-

ology Officer of the Ordnance Survey, and head of the Department for Scotland. He traced the mapping of Dumfriesshire from the 1750's, which was carried out by General Roy. He mentioned that on the first Ordnance Survey maps, cairns, forts and stone circles were noted, and that now special maps were made of all these things, and modern archæological research now contributes a great deal to the making of maps.

15th March, 1963.—The final lecture of the session was given by Mr B. W. Ribbens, of the Department of Botany at Glasgow University, and was entitled: "New Scottish Plants." Mr Ribbens illustrated his talk with fine coloured slides and discussed the enormous numbers of plants which have been found in South Scotland over the past ten years. These fell into four main categories, namely the plants once reported and then not seen again over a long period, plants which normally occur in one district only, and which have now been found elsewhere, plants which are completely new to Scotland, and finally those which ought to exist, but which have never been found.

FIELD MEETINGS, 1962-63

Four very successful Field Meetings were held this year, the first, on **11th May,** led by Dr Harper to Morton Castle and Durisdeer. On arrival at Morton Castle, Dr Harper and Mr Truckell outlined the history of the place, and its importance from a strategic point of view, commanding as it did the valley from the Clyde to the South of Scotland. From there, the party went on to Durisdeer Church to see the Queensberry Marbles. Most of the party walked further up the valley to see the remains of a Roman fort.

25th May, 1963.—A special Nature Week excursion was arranged, consisting of a visit to the Solway shore, under the leadership of Dr Peter Barnett who had given a talk to the Society during the winter. Dr Barnett explained the varieties of sea-weed to be found both above the tide line and below it. He also discussed the animal life of the sea-shore, pointing out the various types of organism which inhabit the rocks, the crevices and the sand. Members also had the opportunity of seeing gulls nesting on the cliffs.

8th June, 1963.—For the second year running an all-day excursion took place, this time to see the Roman Wall at Housesteads, under the joint leadership of Mr Truckell and Professor Eric Birley of Durham University. Over 90 members and friends made the journey, and a visit was also paid to the beautiful church at Hexham.

22nd June, 1963.—The final excursion of the season, led by Mr H. M. Russell, took place to Barlocco to see the sea birds there. Several species of birds were nesting on the sandstone bluffs there, including fulmars, petrels, cormorants and house martins. The weather on all the excursions was sunny if cold, with a few occasional showers, but not enough to dampen the enthusiasm of the parties.

Dumfriesshire and Galloway Natural History and Antiquarian Society.

Membership List, 1st March, 1963

Fellows of the Society under Rule 10 are indicated thus *

LIFE MEMBERS.

*Balfour-Browne, Professor W. A. F., M.A., F.R.S.E., Brocklehirst, Dumfries (President, 1949-50) 1941
Birley, Eric, M.B.E., M.A., F.S.A., F.S.A.Scot., Observatory House, Durham City 1935
Blackwell, Philip, F.B., Lt.-Commander, R.N. (Ret.), The Ark, Warblington Road, Emsworth, Hants. ... 1946
Borthwick, Major W. S., T.D., 54 Darrick Wood Road, Orpington, Kent 1943
Breay, Rev. J., The Vicarage, Shepreth, Cambridge ... 1950
Brown, J. Douglas, O.B.E., M.A., F.Z.S., Roberton, Borgue, Kirkcudbright 1946
Buccleuch and Queensberry, His Grace the Duke of, K.T., P.C., G.C.V.O., Drumlanrig Castle, Thornhill, Dumfries —
Burnand, Miss K. E., F.Z.S.Scot., Brocklehirst, Dumfries (Ordinary Member, 1941) 1943
Carruthers, Dr. G. J. R., 4A Melville Street, Edinburgh, 3 (Ordinary Member, 1909) 1914
*Cunningham, David, M.A., 42 Rae Street, Dumfries (President, 1953-56) 1945
Cunningham-Jardine, Mrs, Jardine Hall, Lockerbie (Ordinary Member, 1926) 1943
Ferguson, James A., Over Courance, by Lockerbie 1929
Ferguson, Mrs J. A., Over Courance, by Lockerbie 1929
Gladstone, Miss I. O. J., c/o National Provincial Bank, Ltd., 61 Victoria Street, London, S.W.1 (Ordinary Member, 1938) 1943
Gladstone, John, Capenoch, Penpont, Dumfries 1935
Geddes, Nathan, Boghall, Buittle, Castle-Douglas 1955
Kennedy, Alexander, Ardvoulin, South Park Road, Ayr (Ordinary Member, 1934) 1943
Kennedy, Thomas H., Blackwood, Auldgirth, Dumfries ... 1946
Lockhart, John L., Suite 316, 1135, 18th Avenue S.W., Calgary, Alberta, Canada 1948
M'Culloch, Walter, W.S., Ardwall, Gatehouse-of-Fleet ... 1946

*MacLean, A., B.Sc., Wayside, Edinburgh Road, Dumfries (President, 1950-53) (Ordinary Member, 1944) ... 1953
Mansfield, The Right Hon. the Earl of, F.Z.S., M.B.O.U., J.P., Comlongon Castle, Ruthwell, Dumfries 1939
Paterson, E. A., Lavender Bank, Curlew Green, Saxmundham, Suffolk 1945
Perkins, F. Russell, Duntisbourne House, Cirencester, Glos. 1946
Phinn, Mrs E. M., Imrie Bell, Castle-Douglas (Ordinary Member, 1938) 1943
Porteous, Miss M., Glencairn, Broom's Road, Dumfries (Ordinary Member, 1953) 1954
Skinner, James S.. M.A., The Corner House, Closeburn ... 1950
Spragge, Commander H. E., Pincod, Eaglesfield, Dumfriesshire (Ordinary Member, 1931) 1947
Stuart, Lord David, M.B.O.U., F.S.A.Scot., Old Place of Mochrum, Portwilliam, Wigtownshire 1948
Thomas, C. H., O.B.E., Southwick House, Southwick, by Dumfries 1950
Thomas, Mrs C. H., Southwick House, Southwick, by Dumfries 1950

ORDINARY MEMBERS.

Adamson, D., Doonholm, Castle-Douglas Road, Dumfries ... 1958
Adamson, Mrs D., Doonholm, Castle-Douglas Road, Dumfries 1958
Airey, Alan Ferguson, Woodside, Barnbarroch, Dalbeattie 1961
Anderson, A. D., 7 Mersecroft, Kirkcudbright 1962
Anderson, Mrs E., 14 Oaklands, Chapelcross, Annan ... 1960
Anderson, Miss Mosa, Charlton Cottage, Peaslake, Guildford, Surrey 1953
Angus, Rev. J. A. K., Manse of Hoddam 1956
Angus, Mrs, J. A. K., Manse of Hoddam 1956
Armstrong, Col. Robert A., Brieryhill, Langholm 1946
Armstrong, Mrs R. A. Brieryhill, Langholm 1946
Armstrong, William, Thirlmere, Edinburgh Road, Dumfries 1946
Armstrong, Mrs W., Thirlmere, Edinburgh Road, Dumfries 1946
Austin, W., Glaston, Albert Road, Dumfries 1948
Baker, Mrs Margaret E., Well Cottage, Moffat 1961
Balfour-Browne, Miss E. M. C., Goldielea, Dumfries ... 1944
Balfour-Browne, V. R., J.P., Dalskairth, Dumfries 1944
Banks, James, "Scarknowe," St. Anne's Road, Dumfries 1960
Barr, J. Glen, F.S.M.C., F.B.O.A., F.I.O., Southerly Ridge, Beattock 1946
Barr, Mrs J. Glen, Southerly Ridge, Beattock 1951

Bartholomew, George, A.R.I.B.A., Drumclair, Johnstone Park, Dumfries 1945
Beaton, Mrs E., Clenries, Albert Road, Dumfries 1962
Beattie, Miss Isobel H. K., A.R.I.B.A., Thrush Wood, Mouswald, Dumfries 1947
Beattie, James, Mains of Westerkirk, Langholm 1960
Begg, Miss R. E., Crichton Royal, Dumfries 1952
Bell-Macdonald, A., Rammerscales, Lockerbie 1958
Beresford-Cooke, Miss K., Crichton Royal, Dumfries ... 1962
Biggar, Miss, Corbieton, Castle-Douglas 1947
Biggar, Miss E. I., Corbieton, Castle-Douglas 1947
Birkinshaw, Dr E., Cairnyard, Lochfoot, Dumfries 1958
Black, Miss Amy G., Burton Old Hall, Burton, Westmoreland 1946
Blackett, Major C. W. S., Arbigland, Kirkbean 1960
Blake, Brian, 97 Scotby Road, Carlisle 1953
Bone, Miss E., Stable Court, Castle-Douglas 1937
Boyes, Miss M., 34 Cardoness Street, Dumfries 1957
Brewis, Mrs F. D. D. M., Ardwell, Stranraer ... ... —
Brown, Miss E., Glencotho, Broughton, Biggar 1960
Brown, Mrs M. G., Caerlochan, Dumfries Road, Castle-Douglas 1946
Buchanan, A., The Hermitage, Bridge Street, Beccles, Suffolk 1963
Buchanan, John, Sunnydene, Mainsriddle 1957
Bunyan, David, c/o Moffat Academy, Moffat 1955
Byers, R., Munches Kennels, Dalbeattie 1951
Campbell, Alexander, Spindrift, Carsethorn, by Dumfries ... 1956
Campbell, Eoin, St. Nicolas, Ballplay Road, Moffat ... 1960
Campbell, Mrs E., St. Nicolas, Ballplay Road, Moffat ... 1960
Campbell, Mrs Margaret, Spindrift, Carsethorn, by Dumfries 1956
Campbell, J. Keith, Low Arkland, Castle-Douglas 1959
Campbell, Mrs Keith, Low Arkland, Castle-Douglas ... 1953
Campbell, Miss Sheila, 57 Newall Terrace, Dumfries ... 1963
Cannon, D. V., The Glenkens, Strand Lane, Ashford, near Barnstaple, Devon 1949
Carlyle, Miss E. M. L., Templehill, Waterbeck, Lockerbie 1946
Carr, J. J., Lanka, St. Annes Road, Dumfries 1961
Carroll, Miss K. M., A.R.I.B.A., Meadowside, 14 Summergate Road, Annan 1961
Carruthers, A. Stanley, 9 Beechwood Road, Sanderstead, Surrey 1954
Carruthers, Mrs M. E. M., 43 Castle Street, Dumfries ... 1946
Cessford, G. A., 10 Almond Court East, Barnton, Edinburgh, 4 1956
Chamberlain, John, c/o 6 Gordon Street, Dumfries ... 1961

Charteris, Mrs N., Kirkland Bridge, Tinwald 1955
Clavering, Miss M., Clover Cottage, Moffat 1948
Cluckie, James, Lochanlee, Ardwall Road, Dumfries ... 1955
Cochrane, Miss M., Glensone, Glencaple, Dumfries 1946
Coles, Francis E., Glebe House, Dumfries 1957
Coombes, R. A. H., 10 Langlands, Dumfries 1963
Cormack, David, LL.B., W.S., Royal Bank Buildings, Lockerbie 1913
Cormack, Wm., Starney, Lockerbie 1951
Corsan, John Charles, M.C., F.R.S.A., 110 College Road, Dulwich, London, S.E.21 1961
Coulthard, William, Wellholme, Scotby, by Carlisle ... 1959
Cowan, Mrs H., Chapel Hill, Glencaple 1958
Cowan, Dr Ian Borthwick, 119 Balshagray Avenue, Glasgow 1962
Crabbe, Lady, Duncow, Dumfries 1962
Crosthwaite, H. M., Crichton Hall, Crichton Royal Institution, Dumfries 1943
Cumming, Ian, Moniak, Grantown-on-Spey 1956
Cunningham, Mrs David, 42 Rae Street, Dumfries 1948
Cunningham, John, 20 Queen Street, Lochmaben 1958
Cunningham-Jardine, Mrs D. A. J., Fourmerkland, Lochmaben 1960
Cunnington, T. M., Glensone, New Abbey 1957
Dalziel, Miss Agnes, L.D.S., Glenlea, Georgetown Road, Dumfries 1945
Daniels, Charles, M.A., F.S.A., The University, Durham ... 1961
Davidson, Dr. James, F.R.C.P.Ed., F.S.A.Scot., Linton Muir, West Linton, Peebles... 1938
Davidson, J. M., O.B.E., F.C.I.S., F.S.A.Scot., Griffin Lodge, Gartcosh, Glasgow 1934
Deans, W. D., White Lodge, Carsethorn 1962
Deans, Mrs W. D., White Lodge, Carsethorn 1962
Dickie, J. Wallace, Glenlee, 17 Palmerston Drive, Dumfries 1954
Dickie, Rev. J. W. T., 6 Hannay Street, Gatehouse-of-Fleet 1951
Dickson, Miss A. M., Woodhouse, Dunscore, Dumfries ... 1930
Dinwiddie, N. A. W., M.A., B.Com., Newall Terrace, Dumfries 1937
Dinwiddie, W., Craigelvin, 39 Moffat Road, Dumfries ... 1920
Dobie, K. L., Stormont, Dalbeattie Road, Dumfries... ... 1950
Dobie, Percy, B.Eng., 122 Vicars Cross, Chester 1943
Dobie, W. G. M., LL.B., Conheath, Dumfries 1944
Dobie, Mrs W. G. M., Conheath, Dumfries 1944
Drew, Dr R. L., 32 Hospital Road, Annan 1959
***Duncan, Sir Arthur B., B.A., Gilchristland, Closeburn, Dumfries (President, 1944-1946) 1930**
Duncan, Walter, Newlands, Dumfries 1926
Duncan, Mrs W., Newlands, Dumfries 1926

Dunlop, Mrs A. J., C.B.E., D.Litt., 73 London Road, Kilmarnock, Ayrshire 1952
Eckford, R. J. A., Summerhill, Grange Road, Moffat ... 1956
Edwards, Frederick J., M.A., 113 Lockerbie Road, Dumfries 1953
Fairbairn, Miss M. L., c/o Austin, Springfield, Hermitage Drive, Dumfries 1952
Farries, T. C., 1 Irving Street, Dumfries 1948
Ferguson, Ronald, Woodlea House, High Bonnybridge, Stirlingshire 1953
Flett, David, A.I.A.A., A.R.I.A.S., Bardristane House, Gatehouse-of-Fleet 1947
Ford, D., C.A. Radio Station, Lowther Hill, Wanlockhead, Abington, Lanarkshire 1957
Forman, Rev. Adam, Dumcrieff, Moffat 1929
Forrest, J. H., Ashmount, Dalbeattie Road, Dumfries ... 1953
Forrest, Mrs J. H., Ashmount, Dalbeattie Road, Dumfries 1953
Fraser, Mrs I., Westerlea, Roberts Crescent, Dumfries ... 1962
Fraser, Brigadier S., M.C., 20 Abercromby Road, Castle-Douglas 1947
Fullen, Miss Anne E., 81 Sydney Place, Lockerbie 1961
Gair, James C., Dorland, Pleasance Avenue, Dumfries ... 1946
Gair, Mrs J. C., Dorland, Pleasance Avenue, Dumfries ... 1960
Gair, John, 2 Greenside, Westerkirk, Langholm 1945
Galbraith, Mrs, Murraythwaite, Ecclefechan 1949
Galloway, The Countess of, Cumloden, Newton-Stewart ... 1955
Gibson, Mrs R. M., Lochenlee, Ardwall Road, Dumfries ... 1957
Gillam, J. P., M.A., F.S.A., Bank House, Middle Street, Corbridge, Northumberland 1953
Gillan, Lt.-Col. Sir George V. B., K.C.I.E., Blackford, Haugh-of-Urr, Castle-Douglas 1946
Gillan, Lady, Blackford, Haugh-of-Urr, Castle-Douglas ... 1946
Glendinning, Mrs Mary, 26 Brooke Street, Dumfries ... 1957
Graham-Barnett, N., Blackhills Farm, Annan 1948
Graham, Mrs Fergus, Mossknowe, Kirkpatrick-Fleming, Lockerbie 1947
Grant, G. D., Kelvin, St. Annes Road, Dumfries 1962
Greeves, Lt.-Col. J. R., B.Sc., A.M.I.E.E., Altona, Strandtown, Belfast, 4 1947
Grom, Mrs J. E. R., 14 Ashton Drive, Dumfries 1962
Haggas, Miss, Terraughtie, Dumfries 1944
Haggas, Miss E. M., Terraughtie, Dumfries 1944
Hannay, Miss E. Jean, Lochend, Stranraer 1951
*Harper, Dr J., M.B.E., Crichton House, Crichton Royal, Dumfries (President, 1956-1959) 1947
Harper, Mrs M., Crichton House, Crichton Royal, Dumfries 1952
Harris, Bernard F. D., Benmore, Pleasance Avenue, Dumfries 1955

Haslam, Oliver, Cairngill, Colvend, Dalbeattie 1927
Hawley, H. N., Tumby Lawn, Mareham-le-Fen, Boston, Lincs. 1962
Henderson, I. G., Beechwood, Lockerbie 1951
Henderson, Miss J. G., 6 Nellieville Terrace, Dumfries ... 1945
Henderson, Miss J. M., M.A., Ardgowan, 5 Lockerbie Road, Dumfries 1945
Hendry, Miss H. W., Kildonan, Montague Street, Dumfries 1956
Hendry, Sheriff W. E. R., Lochanhead House, Dumfries 1962
Hendry, Mrs W. E. R., Lochanhead House, Dumfries ... 1962
Henry, Mrs Janet, 153 Kingstown Road, Moorville, Carlisle 1953
Hewat, Rev. Pat., Grantchester Parsonage, Cambridge ... 1960
Hopkin, P. W., Sunnyside, Noblehill, Dumfries 1948
Horsley, Dr R. M., 26 Hospital Road, Annan 1962
Hunter, Miss Annie M., 50 Queen Street, Lochmaben ... 1961
Hunter, Miss Irene, Crichton Royal, Dumfries 1962
Inglis, John A., Achadh nan Darach, Invergarry, Invernessshire 1951
Irvine, Mrs James, 4a Johnstone Park, Dumfries 1952
Irving, E. J. B., A.I.E.E., Balgownie, Bellevue Road, Kirkintilloch, Dunbartonshire 1959
Irving, J. W., Milnhead, Kirkmahoe 1957
Irving, Miss, Moat Hostel, Edinburgh Road, Dumfries ... 1962
Jameson, Mrs A. M., Ardmor, Gatehouse-of-Fleet 1946
Jobbins, J. K., Greysouthern, 24 Turnberry Road, Newington, Annan 1960
Johnston, Major F. J., 61 Chester Square, London, S.W.1. 1957
Johnston, Lt.-Col. Patrick, Bury Hall, Therfield, Royston, Herts. 1956
Johnston, Thomas, Snowdrop Bank, Annan Road, Noblehill, Dumfries 1962
Johnstone, Miss E. R., Cluden Bank, Moffat ... ... —
Johnstone, J. E., 4 Langlands, Dumfries 1955
Johnstone, Major J. L., Amisfield Tower, Dumfries ... 1945
Keppie, J. Fraser, Balcary, Hardgate, Castle-Douglas ... 1961
Keppie, Mrs J. F., Balcary, Hardgate, Castle-Douglas ... 1961
Kerr, C. A., Rubislaw, Hill Street, Dumfries 1961
Kinloch, Rev. R. C. H., M.A., B.D., The Manse, Leadhills, Abington, Lanarkshire 1961
Landale, David, Dalswinton, Dumfries 1951
Lauder, Miss A., Craigiebank, Moffat Road, Dumfries ... 1932
Laurence, D. W., St. Albans, New Abbey Road, Dumfries... 1939
Leslie, Alan, B.Sc., 33 Canberra Road, Gretna 1949
Little, Robert J., East Hayrigg, Lockerbie 1961
Lord, Brian L., Castlehill, Kirkmahoe 1960

McAdam, Dr. William, Maryfield, Bankend Road, Dumfries 1952
McAdam, Mrs, Maryfield, Bankend Road, Dumfries ... 1953
McCaig, Miss, 26 Royal Avenue, Stranraer 1953
MacCartney, Dr A., M.B., Ch.B., F.S.A.Scot., 23 Crawfurd Road, Burnside, Rutherglen 1957
McClure, Miss J., Wellwood, New Galloway 1955
McConnel, F. W., Lettrick, Dunscore 1958
McConnel, J. C. I., Church House, Stour Provost, Gillingham, Dorset 1961
McCracken, Alex., 10 West Street, Langholm 1961
McCracken, Kenneth M., M.B., Ch.B., F.S.A.Scot., Inglestone, Kelso 1955
McCulloch, Lady, 37 Fleet Street, Gatehouse, Castle-Douglas ... ... —
McCulloch, A. J., Ardwall, Gatehouse-of-Fleet 1963
MacDonald, J. A. B., 7 Langlands, Dumfries 1952
MacDonald, I. A., H.M.I.S., Clairmont, Dumfries Road, Lockerbie 1952
MacDonald, M. M., Oakdale, Glencaple Road, Dumfries ... 1960
MacDonald, Mrs M. M., Oakdale, Glencaple Road, Dumfries 1962
Macdonald, N. H., Hazelwood, Laurieknowe, Dumfries ... 1952
Macdonald, Mrs N. H., Hazelwood, Laurieknowe, Dumfries 1952
McDowall, Miss P., Meadowpark, Kirkmahoe 1957
McElroy, James, 7 Carlingwark Street, Castle-Douglas ... 1957
McGhie, Miss Mary, Fairleigh, Dunmuir Road, Castle-Douglas 1957
MacGowan, W. G., 7 Albany Lane, Dumfries 1962
MacGowan, Mrs W. G., 7 Albany Lane, Dumfries 1963
McKerrow, Henry George, Whiterne, Albert Road, Dumfries 1953
McKie, Joseph, 44 Terregles Street, Dumfries 1954
McKinna, Miss Mary T., 10 Bank Street, Wigtown ... 1960
McKnight, Ian, 3 Langlands, Dumfries 1948
McKnight, Mrs I., 3 Langlands, Dumfries 1948
MacLaren, Duncan, Winston Hotel, Rae Street, Dumfries 1963
*McLean, Mrs M. D., Ewart Library, Dumfries, President, 1959-1962 1946
McMicken, W. D., 79 Brodie Avenue, Troqueer 1961
Macmillan, Nigel, Overton, Southwick Road, Dumfries ... 1963
Macmillan, Mrs N. Overton, Southwick Road, Dumfries ... 1963
MacMillan-Fox, Mrs M. M. G., Glencrosh, Moniaive ... 1950
MacMillan-Fox, Miss J. M. G., Glencrosh, Moniaive ... 1950
McQueen, Miss Flora, Ford View, Kippford, Dalbeattie ... 1954
MacQueen, John, M.A., The University, Edinburgh ... 1952
McRobert, Mrs F., 2 Stewartry Court, Lincluden 1948
Maitland, Mrs C. L., Cumstoun, Twynholm 1952

Marshall, Dr. Andrew, Burnock, English Street, Dumfries 1947
Marshall, Mrs Andrew, Burnock, English Street, Dumfries 1962
Marshall, Miss Joan, M.A., Department of Geography, Glasgow University 1961
Martin, J. D. Stuart, Old Bank House, Bruce Street, Lochmaben 1946
Martin, Mrs J. D. S., Old Bank House, Bruce Street, Lochmaben 1946
Martin, W. J., Kirklynn, Corsock 1961
Martin, Mrs W. J., Kirklynn, Corsock 1961
Matthews, Niven S., Mabie House, New Abbey Road, Dumfries 1961
Maxwell, Major-General, Sir Aymer, C.B.E., M.C., R.A., Kirkennan, Dalbeattie 1946
Maxwell, G. A., Abbots Meadow, Wykeham, Scarborough ... 1937
Maxwell, Mrs Bernard, Stedstane, Dalbeattie 1963
Maxwell, Mrs Sheena, 15 Gordon Road, Edinburgh, 12 ... 1954
Maxwell-Irving, A. M. T., B.Sc., Congreve House, Walton-on-the-Hill, Stafford 1957
Menzies, Mr, Elderslie, Gatehouse-of-Fleet 1952
Menzies, Mrs, Elderslie, Gatehouse-of-Fleet 1952
Millar, James, M.A., B.Sc., The Rectory, Closeburn 1949
Millar, Mrs J., The Rectory, Closeburn 1949
Miller, Mrs Agnes, Kinnoull, Loch Road, Dumfries ... 1963
Miller, Miss Jean, 9 Dumfries Road, Castle-Douglas ... 1951
Miller, Joseph C., Crannog, Annan Road, Lochmaben ... 1963
Miller, Col. J. S., Razani, Annan 1962
Miller, R. Pairman, S.S.C., 13 Heriot Row, Edinburgh, 3 ... 1908
Mills, A. W. F., Lochinvar Hotel, Dalry, Castle-Douglas ... 1957
Mills, Miss S., Garfield, Glencaple 1959
Mitchell, Mrs E. J., 79 Great King Street, Edinburgh ... 1953
Moore, C. H., 6 Lonsdale Terrace, Edinburgh, 3 1953
Morris, F. R. A., B.Sc., A.M.I.E.E., The Principal, The Technical College, Dumfries 1961
Morrison, John, Crofthill, Dalbeattie Road, Dumfries ... 1961
Morton, Miss T. D., 35 George Street, Dumfries 1947
Murray, A., M.A., 33 Inverleith Gardens, Edinburgh, 4 ... 1957
Murray, Col. G., Waterside House, Keir, Thornhill 1953
Murray, Captain Keith R., Parton House, Castle-Douglas 1950
Murray-Brown, G. A., Kinnelhook, Lockerbie 1953
Murray-Brown, Mrs, Kinnelhook, Lockerbie 1953
Murray-Usher, Mrs E. E., J.P., Cally, Murrayton, Gatehouse-of-Fleet 1946
Mushet, Andrew, M.A., Schoolhouse, Amisfield 1955
Newman, F. H., Auchenhay, Corsock 1959
Nielson, W. W., 33 Spen Road, West Park, Leeds, 16 ... 1957
Nimmo, Mr Ian, M.R.C.V.S., 3 Moffat Road, Dumfries ... 1960

Nimmo, Mrs I., 3 Moffat Road, Dumfries ... ... —
Park, Miss Dora, M.A., Gordon Villa, Annan Road, Dumfries 1944
Park, Miss Mary, F.S.M.C., Gordon Villa, Annan Road, Dumfries 1944
Paulin, Mrs D. M., Drumnash, Parton 1950
Payne, Mrs, Milnhead, Kirkmahoe 1953
Pearson, Gordon, Blencathro, Rotchell Park, Dumfries ... 1960
Philip, Rev. D. Stuart, The Manse, Kirkmahoe 1962
Pigott, Lady, Closeburn Castle, Dumfries 1945
Prevost, W. A. J., 26 Coates Gardens, Edinburgh, 12 ... 1946
Pullen, O. J., B.Sc., Highfield, Motherby, by Penrith ... 1934
Rae, Dr I. P. F., McCowan House, Crichton Royal, Dumfries 1962
Rae, Mrs J. O., Quaintways, Arnmannoch Road, Lochrutton, Dumfries 1958
Readman, James, at Dunesslin, Dunscore 1946
*Reid, Dr R. C., F.S.A.Scot., Cleughbrae, Mouswald, Dumfries (President, 1933-1944) 1917
Robertson, Alex., M.A., Kenyon, Albert Road, Dumfries ... 1957
Robertson, Mrs M. A. K., Albany, Dumfries 1933
Robertson, Gordon S., Laneshaw, Edinburgh Road, Dumfries 1962
Robertson, James, O.B.E., Laneshaw, Edinburgh Road, Dumfries 1936
Robertson, James J., 27 Craiglea Drive, Edinburgh, 10 ... 1962
Robertson, Mrs, Woodhouse, Dunscore 1961
Rodgers, Dr James, Mountainhall, Bankend Road, Dumfries 1952
Rodgers, Mrs Joyce, Mountainhall, Bankend Road, Dumfries 1952
Rogers, D., Elanoy, Victoria Avenue, Dumfries 1954
Rogers, Mrs, Elanoy, Victoria Avenue, Dumfries 1954
Ross, Mrs E., Clifton, Rosemount Street, Dumfries ... 1962
Russell, Mrs E. W., Drumwalls, Gatehouse-of-Fleet 1946
Russell, H. M., Nara, Dalbeattie Road, Dumfries 1953
Russell, Mrs H. M., Nara, Dalbeattie Road, Dumfries ... 1954
Russell, I. R., M.A., F.S.A.Scot., Park House, Dumfries ... 1944
Russell, James A., M.A., Ph.D., J.P., F.S.A.Scot., F.E.I.S., The Schoolhouse, Gatehouse-of-Fleet 1960
Sainty, D. L., M.A., LL.B., Waterside, Ringford 1956
Scott-Elliot, Maj.-Gen. J., Kirkconnel Lea, Glencaple ... 1957
Scott-Elliot, Mrs J., Kirkconnel Lea, Glencaple 1962
Overleigh House, East Cliff, Preston 1960
Shaw, R. Cunliffe, M.Sc., F.R.C.S., F.S.A., F.S.A.Scot.,
Simpson, A. J., The Academy, Lockerbie 1945
Smail, Miss Isabel, 11 Erlington Avenue, Old Trafford, Manchester 1952

Smith, C. D., Laight, Bowling Green Road, Stranraer ... 1944
Smith, H. J., 4 Lovers' Walk, Dumfries 1962
Smith, Mrs H. J., 4 Lovers' Walk, Dumfries 1962
Stewart, James, Rowanbank, Victoria Road, Dumfries ... 1953
Stone, J. C., Trelill House, Trelill, Bodmin, Cornwall ... 1958
Straton-Ferrier, Mrs E. I., Bonshaw Tower, Kirtlebridge, by Lockerbie 1959
Sydserff, Peter, The Grove, Dumfries 1950
Tait, Dr A. C., Netherlea, Bankend Road, Dumfries ... 1960
Tallerman, Mrs. Myholm, Rotchell Park, Dumfries ... 1953
Taylor, James, M.A., B.Sc., Drumskeoch, Colvend, by Dalbeattie 1933
Taylor, Mrs J., Drumskeoch, Colvend, by Dalbeattie ... 1961
Thomas, Charles, M.A., F.S.A., Dept. of Prehistoric Archaeology, The University, Edinburgh 1961
Thomson, Miss Mary, 7 Carlingwark St., Castle-Douglas ... 1959
Todrick, Dr A., Windrush, Rotchell Park, Dumfries 1958
Truckell, A. E., F.S.A.Scot., 12 Summerville Avenue, Dumfries 1947
Truckell, Mrs A. E., 12 Summerville Avenue, Dumfries ... 1958
Urquhart, James, M.A., 5 Braehead Terrace, Rosemount Street, Dumfries **1946**
Vaughan, Mrs M., Broomside, Beattock 1962
Walker, Dr Mary, Croft-an-Righ, Wigtown 1960
Walker, Miss, Dryfeview, Lockerbie 1960
Walker, Lieut.-Col. George G., D.L., Morrington, Dumfries 1926
Walker, R., Cairnvale, Morrinton, by Dumfries 1957
Walker, W. M., 17 India Street, Edinburgh, 3 1960
Walmsley, Miss A. G. P., 4 Albany, Dumfries 1951
Walmsley, T. H., 16 St John's Road, Annan 1954
Watson, Miss Jessie, 57 Esplanade, Greenock 1956
Watson, Dr W. H., Carzield House, by Kirkton 1961
Waugh, W., March House, Beattock 1924
Weeks, Mr D. J., Querdon, Moss Road, Mabie, Dumfries ... 1960
Weeks, Mrs S. M., Querdon, Moss Road, Mabie, Dumfries 1960
Welsh, Adam, Greensleeves, Watery Lane, Weymouth, Dorset 1959
Williamson, Miss M., Burnside of Culshan, Kirkpatrick-Durham 1961
Wilson, Allan, M.A., 22 South Beach, Troon, Ayrshire ... 1961
Wilson, John, M.A., Kilcoole, Rae Street, Dumfries ... 1947
Wilson, Mrs J., Kilcoole, Rae Street, Dumfries 1957
Wilson, Paul A., Reform Club, Pall Mall, London, S.W.1. 1961
Wilson, Dr Wm. Douglas, 2 Ladyfield Cottages, Glencaple Road, Dumfries 1962
Wishart, Eric, 3 Catherine Street, Dumfries 1959

Wolffe, A., 31 Fleet Street, Gatehouse-of-Fleet 1959
Wolffe, Mrs A., 31 Fleet Street, Gatehouse-of-Fleet ... 1963
Younie, Mrs A., Well View, Moffat 1953
Young, Mrs A., Thornwood, Edinburgh Road, Dumfries... 1946

JUNIOR MEMBERS.

Baker, Christopher, Well Cottage, Moffat 1961
Beaton, Miss L., Clenries, Albert Road, Dumfries 1962
Gibbs, Allan, Auchlewan, Landhead, Annan 1962
Holden, Brian, 82 Miller Road, Lochside, Dumfries ... 1962
Lamont, John, Lochpark, Kirkpatrick-Durham 1958
McAdam, Miss Alison, "Maryfield," Bankend Road, Dumfries 1960
McAdam, Miss Ellen, "Maryfield," Bankend Road, Dumfries 1962
Mushet, Miss Angela, Schoolhouse, Amisfield 1963
Robertson, Miss M. H., Aldworth, Annan Road, Dumfries 1962
Robinson, Miss Felicity, Balvaig, St Cuthbert's Avenue, Dumfries 1960
Ross, Colin, Clifton, Rosemount Street, Dumfries 1955
Scott, John, Glenkiln, 16 Lockerbie Road, Dumfries ... 1955
Vaughan, Miss, Broomside, Beattock 1962
Watson, Miss Veronica, Carzield House, by Kirkton ... 1961
Whyte, Christopher, Granary Cottage, Gatehouse-of-Fleet 1959
Williams, James, 2 Langlands, Dumfries 1963

SUBSCRIBERS.

Aberdeen University Library, Aberdeen 1938
Belfast Library and Society for Promoting Knowledge, per Lieut.-Col. J. Greeves, Linen Hall Library, Belfast ... 1954
Birmingham University Library, Edmund Street, Birmingham 1953
Cleveland Public Library, 325 Superior Avenue, N.E., Cleveland, U.S.A. (per W. Heffner & Sons, Ltd., 3-4 Petty Cury, Cambridge) 1950
Dumfriesshire Education Committee, County Buildings, Dumfries 1944
Edinburgh Public Libraries, George IV. Bridge, Edinburgh 1953
Glasgow Museums and Art Galleries, Kelvingrove, Glasgow, C.3 1955
Glasgow University Library, per Jackson & Co. (Booksellers), 73 West George Street, Glasgow, C.2 1947
H.M. Ordnance Survey (Archaeological Office, 43 Rose Street, Edinburgh, 2 1958
Institute of Archæology, 31-34 Gordon Square, London, W.C.1 1953
Institute of Historical Research, University of London, Senate House, London, W.C.1 1961
Kentucky University Library, Lexington, Kentucky, U.S.A. (per James Thin & Co., 55 South Bridge, Edinburgh) 1961
Kirkcudbrightshire Education Committee, Education Offices, Castle-Douglas 1944
Kungl Vetenskapsakademiens Bibliotek, Stockholm 50, Sweden 1961
Mitchell Library, Hope Street, Glasgow 1925
New York Public Library, 5th Avenue and 42nd Street, New York City (B. F. Stevens & Brown, Ltd.), 77-79 Duke Street, Grosvenor Square, London, W.1 1938
Niedersachsische Staats-un Universtats Bibliothek, Prinzenstrasse 1, Gottingen, Germany 1953
Scottish Record Office, per H.M. Register House, Edinburgh 1955
Sheffield University Library, Sheffield, 10 1962
St. Andrews University Library, St Andrews 1950
Society of Antiquaries, Black Gate, Newcastle-upon-Tyne ... 1962
Society of Writers to H.M. Signet, The Signet Library, Edinburgh 1953
The Librarian, University Library, Queen Victoria Road, Newcastle-on-Tyne 1953
The Librarian, University Library, South Bridge, Edinburgh (per Jas. Thin & Co., 55 South Bridge, Edinburgh, 1) 1955

The Library, University of Liverpool, Liverpool, 3 1954
The Librarian, University of S. Wales, Cathays Park, Cardiff
Trinity College Library, Lyndoch Place, Glasgow, C.3 ... 1953
Wigtownshire Education Committee, Education Offices, Stranraer 1943

List of Exchanges, 1963

Australian and New Zealand Association for the Advancement of Science, Science House, 157-161 Gloucester Street, Sydney.

Ashmolean Museum, Oxford.

Ayrshire Archæological and Natural History Society, Carnegie Public Library, Ayr.

Belfast: Belfast Naturalists' Field Club, The Museum College.

The Library of the Queen's University.

Belfast Natural History and Philosophical Society, Belfast.

Berwick-on-Tweed : Berwickshire Naturalists' Club, c/o Middle Ord, Berwick-on-Tweed.

Caermarthen : Hon. Sec., Caermarthen Antiq. Soc.

Cambridge : University Library.

Cardiff: Cardiff Naturalists' Society, National Museum of Wales, Cardiff.

Carlisle: Cumberland and Westmorland Antiquarian and Archæological Society, Tullie House, Carlisle.

Carlisle : Natural History Society, c/o City Museum, Tullie House, Carlisle.

The Council for Nature: Intelligence Unit, 41 Queen's Gate, London, S.W.7.

Durham: Durham and Northumberland Architectural and Archæological Society, Prebends Gate, Durham.

Edinburgh : National Library of Scotland, Edinburgh, 1.

Botanical Society of Edinburgh, Royal Botanic Gardens, Edinburgh, 4.

Edinburgh Geological Society, Grant Institute of Geology, Kings Buildings, West Mains Road, Edinburgh, 9.

Society of Antiquaries of Scotland, Queen Street.

Essex : "The Essex Naturalist," c/o Passmore, Edwards Museum, Romford Road, London, E.15.

Glasgow: Andersonian Naturalists' Society, Technical College, George Street.

Archæological Society, 4 Clifton Street, Glasgow, C.3.

Geological Society, 207 Bath Street.

Halifax, Nova Scotia: Nova Scotian Institute of Science.

Hawick: The Hawick Archæological Society, Wilton Lodge, Hawick.

Holland : Rijksdienst Voor Het Oudheidkundig, Bodemonderzoek, Amersfoort, Kleine Haag 2, Nederland.

Isle of Man: Natural History and Antiquarian Society, c/o Manx Museum, Douglas, Isle of Man.

London: British Association for the Advancement of Science, Burlington House.

Society of Antiquaries of London, Burlington House.

British Museum, Bloomsbury Square.

British Museum (Natural History), South Kensington.

Lund, Sweden: The University of Lund.

Oxford. Bodleian Library.

School of Scottish Studies, c/o Journals Dept., University Library, Old College, South Bridge, Edinburgh.

Florida State Museum, Florida.

Stockholm ö, Sweden: Biblioteket K. Vitterhetsakademien, Storgatan 41.

Toronto: The Royal Canadian Institute, 198 College Street, Toronto.

Torquay: Torquay Natural History Society, The Museum.

Ulster : Journal of Archæology, c/o 14 Sam Souci Park, Belfast, 9.

Upsala, Sweden: Universitets Biblioteket, Upsala.

U.S.A.—

American Museum of Natural History, Central Park West at 79th Street, N.Y., 24.

Chapplehill, N.C.: Elisha Mitchell Scientific Society.

Cambridge, 38 Mass.: Harvard College of Comparative Zoology.

Chicago: Field Museum of Natural History.

Madison, Wis.: Wisconsin Academy of Sciences, Arts and Letters.

New York: New York Academy of Sciences.

Philadelphia: Academy of Natural Sciences.

Rochester, N.Y.: Rochester Academy of Sciences.

Washington: Smithsonian Institute, U.S. National Museum.

United States Bureau of Ethnology.

United States Department of Agriculture Library.

United States Geological Survey—Librarian: Room 1033, General Services Administration Building, Washington 25, D.C., U.S.A

Yorkshire: Archæological Society, 10 Park Place, Leeds.

Cardiff: National Library of Wales, Aberystwith.

Dumfries: "Dumfries and Galloway Standard."

Glasgow: "The Glasgow Herald."

Edinburgh: "The Scotsman."

DUMFRIESSHIRE AND GALLOWAY NATURAL HISTORY AND ANTIQUARIAN SOCIETY

Abstract of Accounts for year ended 31st March, 1963

REVENUE CASH ACCOUNT

1962	INCOME				1962	EXPENDITURE			
£352	Subscriptions		£333 9 0			Publication of Transactions—			
200	Grant (Carnegie)		100 0 0		£272	Printing	£274 0 0		
59	Sales of Transactions		70 2 0		60	Blocks and Off-prints	45 2 5		
21	Excursion Receipts		47 4 7		20	Issue Expenses	30 13 10		
	Sundries—							£349 16 3	
	"Discovery and Excavation"	£1 17 6			68	Printing, Adverts., Stationery and Postages		50 7 6	
	"Upper Nithsdale Coal Works"	24 13 6			13	Excursion Expenses		55 2 5	
40	I.T. Refund on Covenants	39 13 4			1	Bank Charges and Cheques		1 7 0	
			66 4 4		6	Lecturers' Expenses		6 15 0	
			£616 19 11		1	Subscriptions		5 4 0	
—	Centenary Donation from Member		100 0 0			Sundries—			
8	War Loan Interest		8 1 0			Caretaker (2 years)	£8 10 0		
15	Dumfries Savings Bank Interest		16 0 3			Centenary Expenses	36 2 0		
14	Bank of Scotland Savings Account Interest		11 19 7			Refund Excess Remittance	1 7 6		
								45 19 6	
								£514 11 8	
					192	Operating Surplus		102 8 3	
					36	Investment Income		36 0 10	
					—	Donation		100 0 0	
			£753 0 9					£753 0 9	

RECONCILIATION OF ASSETS

Position at	31/3/62	31/3/63
Cash in hand	£1 14 0	£0 10 0
Cash in Current A/C (Bank of Scotland)	43 8 0	155 8 9
Cash in Savings A/C (Bank of Scotland)	554 19 10	666 19 5
Cash in Dumfries Savings Bank	411 11 3	527 11 6
Cash in Excavation Current A/C	79 12 10	100 12 10
War Stock at Current Value	138 0 0	138 0 0
	£1229 5 11	£1589 2 6
		1229 5 11
Increase in Assets		£359 16 7

NOTES: (1) The Increase in Assets is made up by Operating Surplus £102 8s 3d, Investment Income £36 0s 10d, Donation held in Savings A/C pending specific expenditure £100, Excavation A/C increase £21, and Broomholm Grant held in Savings A/C pending payment £100.

(2) The Broomholm Grant referred to above was received from the Carnegie Trust for work being carried out there. The Society is merely the channel for payment.

AUDITORS' CERTIFICATE.—We have examined the Books and Vouchers of the Society for the year ended 31st March, 1963, and certify that the foregoing statements exhibit a true and correct view of the state of the affairs of the Society as at 31st March, 1963. The War Stock certificate has been exhibited.

W. C. GALLAN
S. G. TROUT
} Hon. Auditors, 19/4/1963

INDEX

The Dumfriesshire and Galloway Natural History and Antiquarian Society, founded 20th November, 1862

CENTENARY CELEBRATIONS,

23rd and 24th November, 1962

As part of the Centenary arrangements, Volume III. of their Records of the Western Marches has been published by the Society under the name of:—

"THE UPPER NITHSDALE COAL WORKS FROM PICTISH TIMES TO 1925." The Work has been compiled by J. C. I. McConnel from local historical sources and family papers, and is edited by Dr R. C. Reid. It is available to members of the Society at 10/- per copy from the Honorary Librarian, Ewart Library, Dumfries. A limited number of copies can be had by non-members at 15/-.

Autumn, 1962.

Publications of the Society.

Transactions and Journal of Proceedings:—(a) 1862-3, *7s 6d;* (b) 1863-4, *out of print;* (c) 1864-5, *out of print;* (d) 1865-6, *out of print;* (e) 1866-7, *out of print;* (f) 1867-8, *out of print;* New Series (1) 1876-8, *out of print;* (2) 1878-80, *out of print;* (3) 1880-3, *out of print;* (4) 1883-6, *5s;* (5) 1886-7, *5s;* (6) 1887-90, *7s 6d;* (7) 1890-1, *3s;* (8) 1891-2, *out of print;* (9) 1892-3, *7s 6d;* (10) 1893-4, *7s 6d;* (11) 1894-5, *out of print;* (12) 1895-6, *5s;* (13) 1896-7, *5s;* (14) 1897-8, *5s;* (15) 1898-9, *5s;* (16) 1899-1900, *5s;* (17, pts. 1 and 2) 1900-2, *3s 6d;* (17, pt. 3), 1902-3, *2s 6d;* (17, pt. 4), 1903-4, *2s 6d;* (17, pt. 5), 1904-5, *5s;* (18) 1905-6, *7s 6d;* (19) 1906-7, *5s;* (20) 1907-8, *5s;* (21) 1908-9, *5s;* (22) 1909-10, *5s;* (23) 1910-11, *7s 6d;* (24) 1911-12, *10s 6d;* Third Series (i.) 1912-13, *10s 6d;* (ii.) 1913-14, *7s 6d;* (iii.) 1914-15, *7s 6d;* (iv.) 1915-16, *5s;* (v.) 1916-18, *out of print;* (vi.) 1918-19, *7s 6d;* (vii.) 1919-20, *10s 6d;* (viii.) 1920-21, *10s 6d;* (ix.) 1921-22, *10s 6d;* (x.) 1922-23, *10s 6d;* (xi.) 1923-24, *10s 6d;* (xii.) 1924-25, *10s 6d;* (xiii.) 1925-26, *10s 6d;* (xiv.) 1926-28, *21s;* (xv.) 1928-29, *10s 6d;* (xvi.) 1929-30, *10s 6d;* (xvii.) 1930-31, *10s 6d;* (xviii.) 1931-33, *21s;* (xix.) 1933-35, *21s;* (xx.) 1935-36, *10s 6d;* (xxi.) 1936-38, *21s;* (xxii.) 1938-40, *21s;* (xxiii.) 1940-45, *21s;* (xxiv.) 1945-46, *10s 6d;* (xxv.) 1946-47, *10s 6d;* (xxvi.) 1947-48, *21s;* (xxvii.) 1948-49, *21s;* (xxviii.) 1949-50, *21s;* (xxix.) 1950-51, *21s;* (xxx.) 1951-52, *21s;* (xxxi.) 1952-53, *21s;* (xxxii.) 1953-54, *21s;* (xxxiii.) 1954-55, *21s;* (xxxiv.) 1955-56, *21s.*; (xxxv.) 1956-57, *21s.*

A List of the Flowering Plants of Dumfriesshire and Kirkcudbrightshire, by James M'Andrew, 1882, *out of print.*

Birrens and its Antiquities, with an Account of Recent Excavations and their Results, by Dr. James Macdonald and Mr James Barbour, 1897, *3s 6d.*

Communion Tokens, with a Catalogue of those of Dumfriesshire, by the Rev. H. A. Whitelaw, 1911, *7s 6d, out of print.*

History of the Dumfries Post Office, by J. M. Corrie, 1912, *5s.*

The History of the Dumfries and Galloway Natural History and Antiquarian Society, by H. S. Gladstone, 1913, *3s 6d.*

The Ruthwell Cross, by W G. Collingwood, profusely illustrated, 1917, *3s 6d, out of print.*

Records of the Western Marches, Vol. I., "Edgar's History of Dumfries, 1746," edited with illustrations and ten pedigree charts, by R C. Reid, 1916, *12s 6d.*

Records of the Western Marches, Vol. II., "The Bell Family in Dumfriesshire," by James Steuart, W.S., *7s 6d.*

Notes on the Birds of Dumfriesshire, by Hugh S. Gladstone, 1923, *10s.*

A Bibliography of the Parish of Annan, by Frank Miller, F.S.A. Scot., *7s 6d.*

Mrs M. D. McLean, Hon. Librarian, Ewart Library, Dumfries, will answer enquiries regarding the above, and may be able to supply numbers out of print.