DUMFRIESSHIRE AND GALLOWAY NATURAL HISTORY & ANTIQUARIAN SOCIETY.

FOUNDED 20th NOVEMBER, 1862.

TRANSACTIONS

AND

JOURNAL OF PROCEEDINGS

1946-47.

THIRD SERIES, VOLUME XXV.

EDITOR:
R. C. REID

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Members working on local Natural History and Archæological subjects should communicate with the Honorary Secretary. Papers may be submitted at any time. Preference is always given to original work on local subjects.

The Editor does not hold himself responsible for the accuracy of scientific, historical, or personal information. Each contributor has seen a proof of his own paper.

Exchanges, Presentations, and Exhibits should be sent to the Honorary Secretary, Professor Balfour-Browne, Brocklehirst, Collin.

Enquiries regarding purchase of *Transactions* and payment of subscription (10s per annum) should be made to Charles Bowden, Esq., Curriestanes, Dumfries.

PROCEEDINGS AND TRANSACTIONS
OF THE
Dumfriesshire and Galloway
Natural History & Antiquarian Society.

SESSION 1946—47.

17th OCTOBER, 1946.

Annual General Meeting.

Chairman—The PRESIDENT.

The minutes of the last Annual General Meeting were read and confirmed.

The accounts of the Hon. Treasurer, showing a balance of £356 16s 10d on Current Account and an increase of Capital Account to £511 4s 3d, were approved. The cost of the volume 1945-46 had still to be met from that balance.

The Annual Report of the Secretary, circulated with the Syllabus for the coming session, was also approved.

The list of Office-Bearers, 1946-47, recommended by the Council, was confirmed.

Certain modifications of the Rules suggested by the Council were unanimously adopted.

Dr. T. R. Burnett then delivered his Presidential Address.

The Physical Geography of Dumfriesshire and its Influence on Human Affairs.

This interesting address was illustrated by maps and lantern slides.

The Forts at Milton, near Beattock (Tassiesholm).

By JOHN CLARKE, M.A., F.S.A.Scot.

Work on the first-century Roman site at Milton was resumed in the summer of 1947 under conditions both novel and promising. Under the auspices of the Scottish Regional Group of the Council for British Archæology, and with the financial support of the Carnegie Trustees and of the Universities of Glasgow and Edinburgh, a summer School of Archæology was organised for the first time in Scotland.

The advantages accruing from such a combination of financial support, academic encouragement, and recruitment of young, intelligent workers has already been well demonstrated by the striking record of Roman Archæology in Northern England within recent years. In Scotland till this season we have had no comparable venture. Before the war, it is true, the present writer had gathered a small band of students who of their own interest and at their own expense took part in several excavations, but their zeal was without official benediction, and of that small band some gave their lives in the War—and here pious memory compels mention of the name of Keith Marshall, by whose death we have lost a young man of much promise and a singularly gracious personality—while others were scattered in new peace-time vocations. The possibilities of development of that pre-war nucleus were thus frustrated, and the suggestion that the North of England scheme might be copied in Scotland came most aptly. For the suggestion all credit is due to Mr R. C. Reid, ex-President of the Dumfriesshire and Galloway Society, who was tireless in his endeavours to make practicable a well-financed and suitably supported arrangement. Along with Mr Davidson, President of the Scottish Regional Group, he secured the interest and financial backing of the Universities and made possible the organisation of a summer School of Archæology whereby the much-needed recruitment of younger Field-workers is tolerably assured. The interest of

the Carnegie Trustees was also aroused, and they made generous provision of funds both for the School and for labour.

By the month of May preliminary arrangements were sufficiently advanced to warrant an invitation to University students to apply for admission to the proposed School. The response was most encouraging. Applications were much in excess of available places, and it was possible to select that variety of aptitude which appeared most likely to ensure success. Practical organisation was made easy by the extraordinary helpfulness everywhere encountered. Mr Scott of Milton Farm once more offered every facility for the work on his land. Dumfriesshire Education Committee granted the free use of Beattock School for the accommodation of the students and supplied equipment necessary for catering. Renfrewshire Education Committee loaned blankets and beds from ex-A.R.P. stores. Dumfriesshire County Council through their Engineer, Mr Robertson, provided tools. Dr. Cunningham, Librarian of Glasgow University, supplied a crate of specialist literature bearing upon the work to be undertaken. The Territorial Association and the Officers' Training Corps of Glasgow University loaned some essential instruments for survey. A number of prominent archæologists promised to visit the School and lecture to the students. Altogether no greater spirit of co-operation could have been hoped for, and to all who thus assisted the Director of the School would offer most genuine thanks.

On Saturday, 19th July, the School assembled, being constituted thus: From Glasgow University—Peter Gouldesborough, Graham Jardine, Hal Liddle, Neil Morgan, George Ritchie, Ian Stewart, Bruce Webster. And from Edinburgh University—John Fiddes and Bruce Simpson. The stronger representation from Glasgow was due to a certain lateness in definite financial arrangement by Edinburgh University and to the fact that a greater number of Glasgow students were willing to stay for the whole five weeks of the School. Later Max Prausnitz was added from Edinburgh to fill a vacancy which arose. It is perhaps unfortunate that the

School was wholly male. Mixed accommodation could not be provided. In the course of the School, two girls, Bridget Gordon and Sheena Murray, succeeded in finding local rooms and were added for a time. The roll would not be complete without Miss Roberta Longstaff, who catered most acceptably for enormous appetites; and two small boys, Billy Hogg and John Clarke, who simultaneously served an apprenticeship to Archæology and performed a useful function as orderlies.

The intimate story of the daily life of the School would make amusing reading were this the place for it. The variety of types ensured a robust and always cheerful give-and-take. From the human side the School was an unqualified success without an awkward moment. As an experiment of serious archæological purpose, it was, the Director believes, also successful. For the first few days the students familiarised themselves with the site and its problems, observed the technique of digging and the use of the evidence which the first cuts supplied. They were encouraged to interpret evidence for themselves from the outset, and their interpretations were corrected where necessary on the spot. Then they were split into parties, and, working along with German prisoners of war, they began to take a practical part in the excavations. Their progress was most encouraging and their acuteness both of observation and deduction most creditable. Before long they were deep in their own theories and full of suggestions as to what should next be done. As the weeks passed, they developed various degrees of expertness, but the general standard was pleasingly high.

Each evening the day's work was gone over on a blackboard at the schoolhouse, a practice which did much to keep the problems of the site as a whole clearly in view. The literature so kindly loaned from Glasgow University was in constant use. The School was honoured by visits of Mr S. N. Miller, Dr. Richmond, Mr E. Birley, and Miss Anne Robertson, all of whom examined the work and afterwards lectured to the students. Their visits and their

lectures were much appreciated. Finally, in the last week, a combined party from the Glasgow and the Dumfriesshire and Galloway Societies visited the site and were conducted over it by the Director, who explained his conclusions. Mr Birley and Miss Robertson added most useful comment.

The School broke up on 23rd August. Thus ended a most profitable experiment of five weeks, which should be useful as indicating the value of this method of capitalising the interest of University students in Archæology and building up a body of competent, younger field-workers. All who took part profess themselves eager to continue the work and gain further experience if facilities can be obtained in a future season.

While it does not seem desirable to submit at this stage a second interim Report, yet public interest requires the publication of the general results of the work done, it being clearly understood that the site is of a size and a complexity which preclude at this stage conclusions of a final nature.

Those familiar with the first Report published in the *Transactions* of this Society for 1945-46 (Third Series, Vol. xxiv., pp. 100-110) will recall that the work of the first season revealed a series of occupations, partly overlapping on one another in two fields of the Farm of Milton, Beattock, numbers 598 and 599 of the 25 inch Ordnance Survey sheets of this area. These occupations, on the evidence of the pottery, all appeared to be of first century date, and taken together presented an unexpectedly complex picture. In particular, the North Fort appeared to have had two phases or forms, both anterior to the South Fort. It was upon the North Fort, therefore, that work was concentrated in the past season, 1947. The expectation was that the difficulties of the North Fort defences would be speedily resolved and that the season's work would also include an examination of the internal arrangements of that Fort. In the event, that expectation proved too ambitious. The defences of the North Fort absorbed the whole work of the season.

The attack opened at the north gate of the North Fort where the previous season had revealed two incompatible

arrangements (fig. 1). The first few days substantiated the evidence of the previous season; there was the sharp-nosed double ditch approaching the gate from the west, almost impinging upon another ditch which swung in under the gateway and terminated. A little search soon gave the post holes of the actual gate associated with the double ditch, one of them sunk in the lip of the inswinger. The gateway was defined by eight post holes with heavy packing stones and remains of decayed timber, and implied two chambers, one on each side of the actual roadway. A later road-surface, presumably Antonine, overlay all but the eastern post holes and encroached upon the termination of the double ditch. The post holes were not for their whole depth dug into the natural soil but were set in an artificial layer of

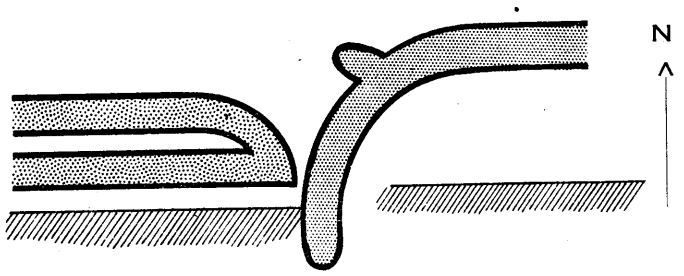


Fig. 1. North Gate of North Fort.

turfy material with which the natural soil had been covered to a depth of eight inches. The packing stones rested in this turfy material which had become of the consistency of a stiff clay. This same turfy material filled the inswinging ditch under the gate. Quite clearly the surface had been levelled and made up at the time when the gateway was constructed.

But what had been the form of the defences here before the levelling? The inswinging ditch, terminating as it did, implied an earlier gateway behind and slightly to the west of the gateway we had already determined, and presumably a ditch or ditches corresponding to the inswinger on the other side of this earlier gateway. The wanted ditches revealed themselves almost at once. There were two of

them and they terminated separately, the inner extending seven feet beyond the termination of the outer. They lay farther back than had been anticipated, leaving a considerable space between them and the end of the inswinger (see fig. 2).

This development at once raised the question of the form of a gateway under such circumstances. Clearly there

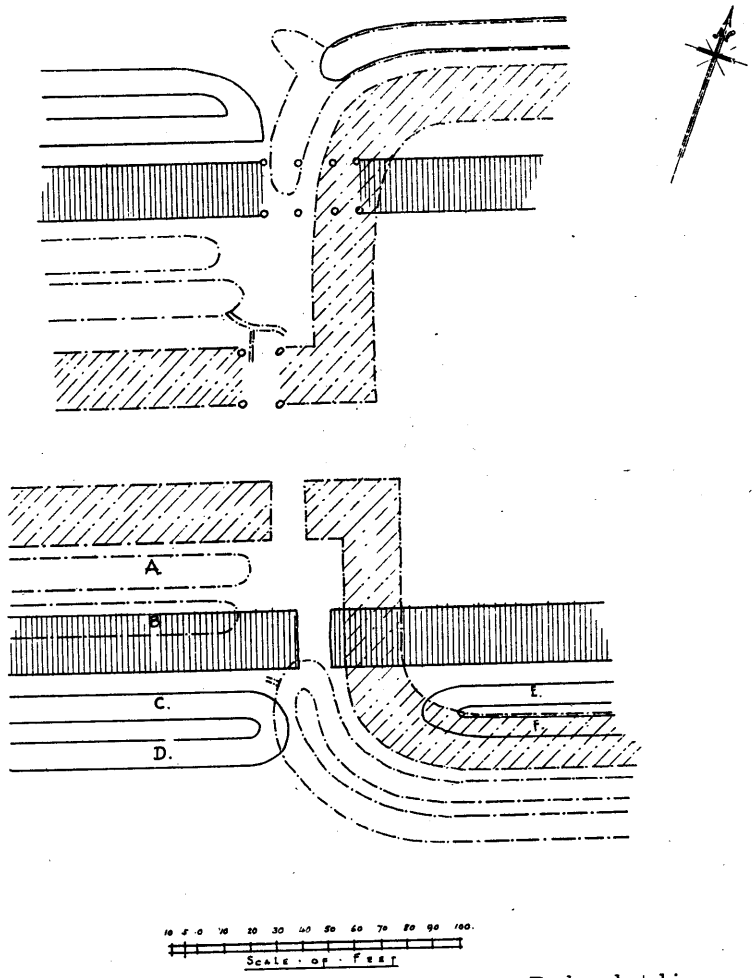


Fig. 2. North and south gates of North Forts. Broken hatching represents Fort 1. Unbroken hatching represents Fort 2.

were several possibilities, and brother archæologists who viewed the arrangement could not recall any fully-excavated example of such a gate. It remained to search till we found it. That search took a quite considerable time and, when rewarded, raised further questions as to the behaviour of the rampart associated with the inswinger. For the gate was found to be set in such relation to the ditches approaching from the west as to imply a normal continuation of ditches on the other side of the gate, not the curious inswinging system already proved. And there was no normal continuation; that was conclusively tested. It followed that the rampart on the east side of the gate must either have been placed in alignment with the rampart on the west side of the gate and at a quite abnormal distance behind its ditch (the inswinger), or else the rampart followed the inswinging ditch and continued beyond the termination of that ditch in the manner shown in fig. 2.

That this latter arrangement did obtain is as certain as can be, considering the almost complete obliteration of the rampart by later changes. The position of the rampart on the west side of the gate had to be inferred from the post holes of the gate, scarcely a trace remaining at this point, though further to the west fragmentary portions of the bottom layer of turf were found. On the east side of the gate fortunately sufficient of the turf foundation remained beneath a later gravel surface to define the curious truncated-L shape of the rampart-end. The rampart had been twenty feet thick at the base and, in its lower courses, at least, of solid turf. East of the gate it had followed the swing of the ditch, leaving a berm of about seven feet.

The roadway must have angled westwards as it emerged from the gate, and the whole arrangement exposed attackers to a cross fire from the ramparts on either side in the constricted space between the ditch-ends. The gate seemed to have had a single guard-chamber on its east side. A system of robbed drain courses discharged into the inner ditch west of the gate.

Thus the scheme of things at the north gate became

coherent. Two quite distinct defence systems, each with its own gateway, were established, together with the clear implication of two distinct Forts. The relation between the two was such that here at least the defences of the first must have been demolished to make way for the second, the inswinging ditch alone being retained up to the point where it approached the second gate. The result of this retention was to leave an unusually wide berm between the ditch and the second rampart east of the second gate. Surely, it was repeatedly suggested by visitors, prudence demanded an auxiliary ditch here. There was none. But there may have been an alternative device. At several points where we examined this wide berm, very sharply defined post holes appeared, nine inches square. We did not succeed in tracing any coherent system of them, and lying as they did in the course of the first rampart, they may have relation to that structure: but the possibility that they may mark a stockade in front of the second rampart is not to be discounted. Such a stockade would have done much to remove the weakness of the broad berm.

At this point we must deal with the curious projecting horn of the inswinging ditch where last season pottery was found of a shape suggesting funerary ware. This season disposed of that suggestion. When the horn was re-opened, a large accumulation of this pottery was collected and pieced together, when it took shape as water pipes with flanges. The pieces were about a foot in length, tapering somewhat to one end so that they fitted together up to the projecting flange. They had been tossed into the ditch and covered with miscellaneous debris, stones, turf and earth apparently when the ditch was disused and filled up. They would thus be related to the first Fort, and a probable source of them seems to be the ruined drain courses which have already been mentioned at the first gate.

While the general scheme of things at the north gate was being worked out by one party, others were exploring the defences elsewhere, and the conclusion as to two distinct Forts was being substantiated at all points. It may be con-

venient if results on the south front are next recorded.

The previous season had revealed here a gateway with associated ditches but with the complication, as on the north front, of a separate and earlier ditch system swinging in under the gateway and terminating. Over the whole gate-complex passed the cobbled surface of a still later road. The arrangement is made clear by figure 3 reproduced from

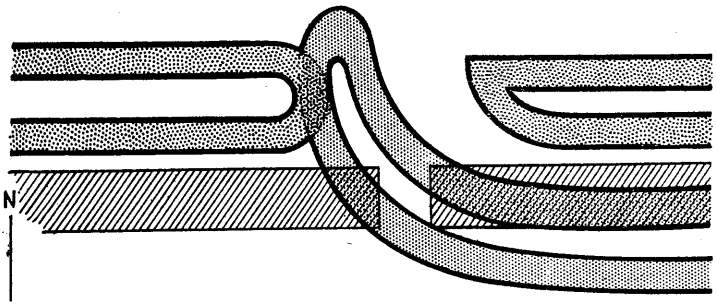


Fig. 3. South Gate of North Fort and North Gate of South Fort.

last season's Report. While that arrangement stands unchanged, the whole picture has now been completed in much more convincing detail.

Briefly what emerged was this. West of the gate (fig. 2) two ditches A and B were found, approaching the gate and terminating separately, A continuing beyond B, as the two corresponding ditches west of the north gate had done. North of A and at a distance of 5 feet ran the base of the rampart associated with A and B; it was of turf with stone margins and the cobbling of a later intevallum street rested upon it. Overlying B was another and later rampart of composite structure, turf, stones and natural soil, with a heavily cobbled base. Further south ran the ditches C and D, already known from last season. They had then been at first related to the structure in the south field. Now it is clear that they are the ditches associated with the composite rampart overlying B, though they may later have had another use.

East of the gate there were no ditches in alignment

with A and B, nor was there any rampart corresponding to that found north of A; but there was a very substantial rampart corresponding to that overlying B, of similar structure and size, 22 feet base.

Thus we arrive at a picture very similar to that at the north gate. We have the evidence of an earlier Fort in the two ditches A and B and the inswinging ditches traced the previous year; we have the rampart of this Fort clearly traceable west of the gate. As for the gate itself of this Fort and the rampart east of the gate, the evidence is less conclusive. Where the gate must have lain we encountered the extremely solid and heavy stone-work of the later road, to remove which over a sufficient area would have involved an excessive expenditure of time and labour. Clear of the road, however, the characteristic white layer of the early rampart base was picked up and defined at its western and eastern limits. It did not continue eastwards in alignment with the rampart west of the gate, and we conclude that it swung out with the ditches as the rampart in the corresponding position did at the north gate. It would lie along the line of the ditches E, F, which must have been dug through its base after it was demolished, a circumstance which would explain the presence of turf on the berm between E and F. This phenomenon was observed in cuts over E and F in the previous season and not understood.

Then we have the evidence of a later Fort in ditches C, D and E, F with their associated rampart overlying ditch B and continuing in the same line east of the gate, the position of which was determined but not explored in detail.

The west front gave some extremely interesting evidence both at the corners and at the west gate. For convenience let us refer to the earlier Fort as I. and to the later as II. From the north gate the defences of I., double ditch and rampart (see fig 4), ran westwards clear of the defences of II., double ditch and rampart, to the north-west corner. There, however, the two systems became confused. The outer ditch of I., once it turned the corner, had been re-used

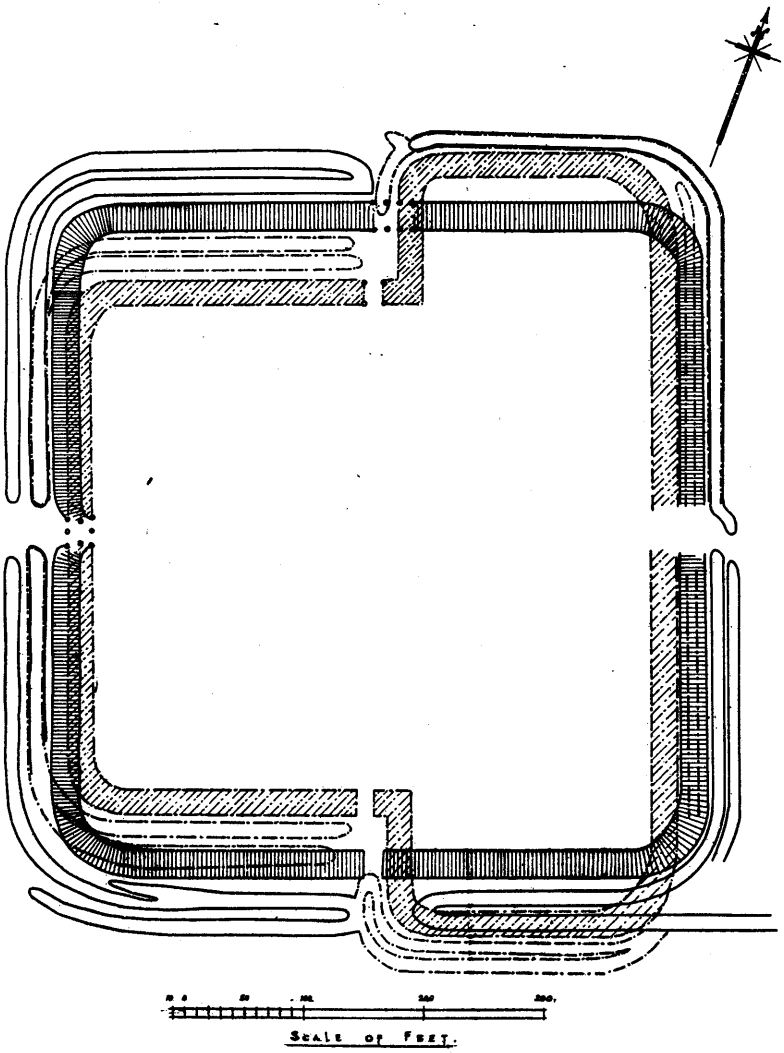


Fig. 4. Defences of North Forts. Broken hatching represents Fort 1. Unbroken hatching represents Fort 2.

as the inner ditch of II. The inner ditch of I. did not continue along the west front but fused with the outer; I. had, therefore, only one ditch on this front, which is defended by a sharp slope. The rampart of II., turning the corner,

overlay both ditches of I. Once clear of the corner, the rampart of II. ran parallel to the course of the rampart of I. and partly coincided with it. The base of rampart II. had been terraced into the slope; the base of rampart I. could be traced clearly behind it, the white leached-turf layer trodden black on its surface by traffic of feet in Fort II.

Exactly the same sequence was traced at the south-west corner. If anything, the evidence was even clearer, for the amount of rampart material remaining was considerable. A robbed drain channel pierced the base of rampart I. at the corner.

The west gate of I. had been re-used for II. How the rampart of II. adapted itself to this curious economy is not clear, whether it curved inwards as tentatively drawn on the plan, or whether, as is probable, the picture is not yet complete, and there are two separate gates. The gateway was marked by eight very large post-holes not exactly fitting either rampart. Prudence suggests further search. The roadway occupied the eastern half of the space.[1]

On the east front the rampart of II. had been terraced into the slope as on the west. The ditch of I. (the inswinger at the north gate) was retained in use as the only ditch of II. as far as the east gate. Beyond this gate, towards the south, the ditches of II. were double, the outer one shallow, though of 10 feet width. Behind the terrace of rampart II. ran a second terrace which had held the base of rampart I. Under rampart II., and partly cut away by the terracing for that rampart, were the remains of what had been originally an inner ditch of I. This inner ditch did not continue round the north-east corner to the north front. On top of its filling and under the mixed layering of rampart II. we found fragments of coarse red ware.

The east gate was not examined, its position only being

1 The two rampart bases became very confused. I am grateful to Mr Birley for directing my attention to the gateway of Xanten (Lehner—"Vetera," pp. 33 and 34 and illustrations) where the rampart (and the ditches) turned inwards in a manner similar to that suggested here.

verified by tracing the ditch terminations and checking by a cut through the gateway thus indicated. The rampart terracing was found to have ceased; the roadway surface was gravel, without cobbling. It is not known whether here, as on the west, the gate of I. had been re-used for II. One scrap of evidence about the gate should be recorded. In the ditch on the north side of the gate, lying at the bottom of its everted crook, was a beam which seemed to have been square-hewn with a side of 9 inches. If the beam came from the gate of II., as seems the most probable source, it cannot have fallen thus far in the slow and natural disintegration of the gate structure, but rather must have been thrown down in deliberate destruction. The point is of some importance in view of the evidence from Fendoch that the first century Fort there was dismantled on evacuation and useful timber removed. Neither at this gate nor at the north or west gates, where the posts had slowly rotted, had such orderly dismantling taken place at Milton.

At the south-east corner the defences presented a very confused problem which is not yet solved in complete detail. The general plan (fig. 4) shows the arrangement so far as known. It will be noted that the outer ditch of II. did not swing round the corner but continued straight on eastwards. Where it crossed the inner ditch of I., an artificial scarp and counter-scarp of stone pitching had been made and the rest of the earlier ditch packed with rampart I. debris.

Thus we have clear evidence of two distinct Forts. There is no ground for any suggestion that we have one Fort, adapted to meet changing needs during occupation. The period represented is First Century. All the finds continue to speak with unanimity on that point. Actually finds were scanty, considering the amount of digging done, but in pottery they formed a typical, homogeneous group of late First Century date, both in Samian and coarse ware. The Samian was disproportionately numerous, a circumstance upon which no weight can be placed at this stage; it may be quite fortuitous.

Dimensions work out as follows: Fort I., measuring

across its broader eastern portion, is approximately 650 feet including defences, or 560 feet within the rampart; across its narrower western portion the corresponding measurements are 500 feet and 400 feet; along its other axis, that is from east to west, it measures 580 feet including defences and 480 feet within the rampart. The internal area implied by these measurements is 5.4 acres.

Fort II., which is almost square, measures 610 feet from north to south and 620 feet from east to west including defences; within the rampart it measures 500 feet each way, giving an area of 5.7 acres.

Reviewing the evidence, we cannot but be struck by the curious, abnormal form of I. about which, in our present ignorance of internal arrangements, it would be idle to speculate. There is no obvious reason in the terrain. The disposition of the gates would lead one to anticipate that the Fort faced west, but this has yet to be confirmed. As for its function, it was quite certainly no temporary makeshift erection. Everything about its defences speaks of an intended occupation for a length of time, while its size implies a garrison of some strength on the milliary scale. One would naturally assume that it was erected when Agricola set up his fortified barrier from Forth to Clyde, and presumably developed a system of firm military tenure and lines of supply in the rear. Equally one would assume that it continued to be held while the armies were operating to the north. Beyond that we are confronted by the darkness which shrouds everything following Agricola's recall. Till the interior is examined we cannot profitably pursue the question of length of occupation.

It does, however, appear arguable that a gap—perhaps short, but nevertheless a gap—separates the occupation of I. from the erection of II. The completeness of the reconstruction on practically the same site is not readily explicable unless I. had already been abandoned and had suffered such damage as to make repair not worth while. Differences of desired plan might explain the changes on the north and south, even had I. been intact; but no such explanation holds on the east and west fronts where the rampart of II.

differs in its line very slightly from that of I. Add the fact that a great deal of the material of rampart I. lay tumbled in its ditches. Consider also a section of litch A (fig. 5) where a thin layer of black decayed material underlies the filling. The layer must represent a certain accumulation

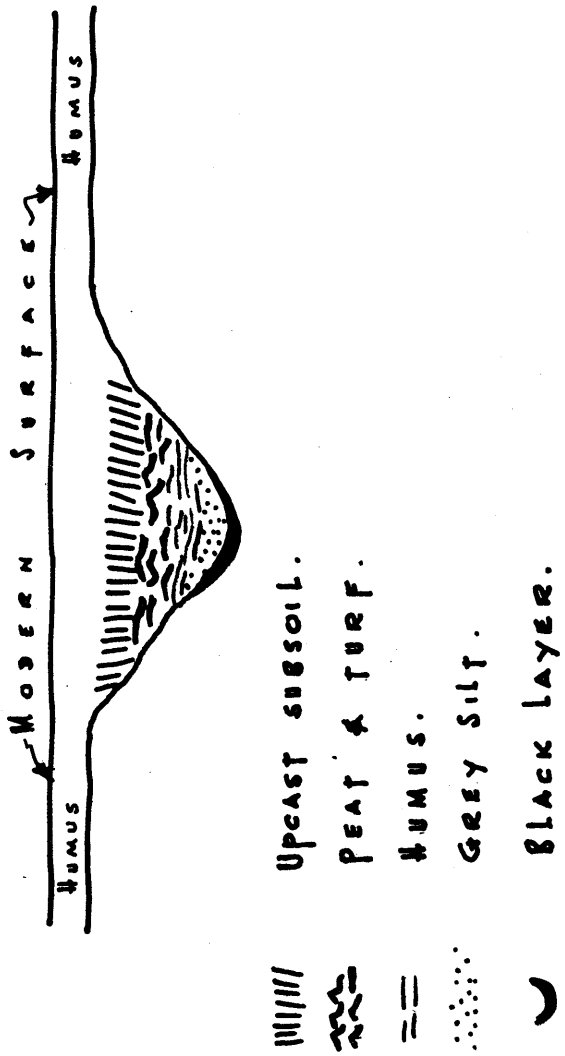


Fig. 5. Section of Ditch A. Scale: 5 ft. to 1 in

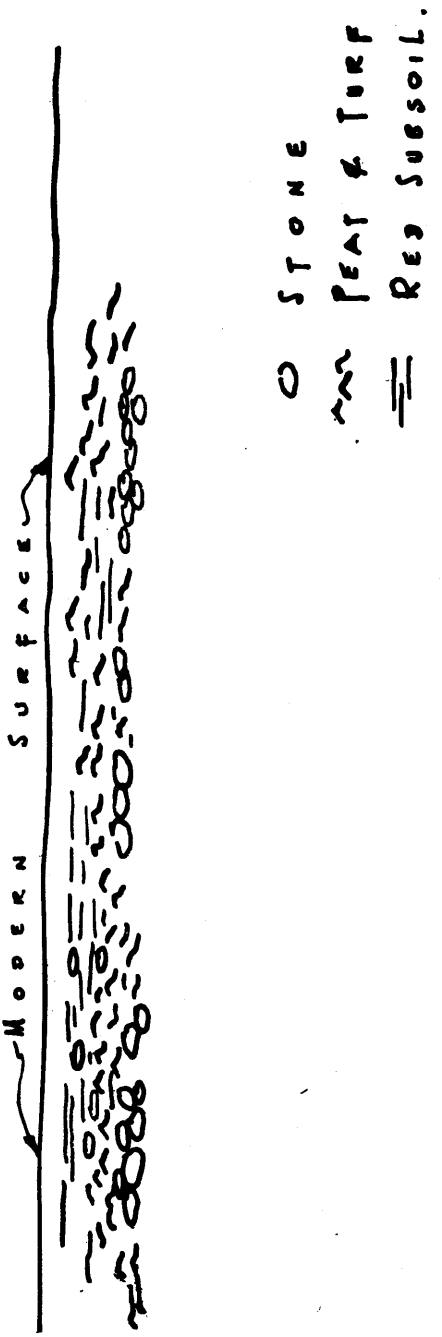


Fig. 6. Section of rampart of North Fort 1. Scale, 5 ft. to 1 in.

of marshy vegetation such as would naturally collect very quickly in any neglected ditch on this site. Altogether there does seem a case, so far, for supposing that Fort II. was erected after Fort I. had been abandoned for a time and had suffered greater damage than natural decay.

Fort II., equally with Fort I., was a permanent structure, but the nature of its occupation and the duration of that occupation await the light of further excavation. If one may judge from the evidences behind the rampart, the occupation was neither short nor slight. But, as the problem of Fort II. will probably turn out to be bound up with that of the structure, be it Fort or be it annexe, in the adjoining field to the south, speculation is doubly undesirable. One point may be mentioned. The rampart of II. was a very heterogeneous affair, layers of turf mingling with earth and stones. Fig. 6 gives a typical section. Not that it would be wise to deduce anything from that; the stripping of the surface when Fort I. was built would have removed abundance of turf from close at hand, and a mixed structure would not be any less stable, as witness its condition still where it has not been disturbed by the plough.

In fine, this site of Milton continues to challenge further exploration and offers a definite hope that it may supply in clear form that information which we await before the history of Roman Scotland in the post-Agricolan period can be reliably written.

1st NOVEMBER, 1946.

Chairman—The PRESIDENT.

Scotland in the Fifteenth Century Through Roman Eyes.

By Mrs A. T. DUNLOP, D.Litt., Ph.D.

This spirited account of Scotland in the 15th century reconstructed the influence of the Roman Church on the activities of the clergy and laymen in Scotland, and was largely derived from the lecturer's personal researches in the Vatican Archives.

Report on Excavations at Bombie.

Easter and Summer, 1947.

By W. A. ANDERSON, M.A.

The recent notable advances in Roman archæology in the West of Scotland rendered it imperative that an inquiry should be directed to areas further west where local tradition had claimed a Roman origin for certain ancient structures. The vague statement of Tacitus[1] that Agricola in his fifth campaign conducted operations overseas, presumably from northern England into Scottish western seas,[2] gave some colour to the legend, and consideration of the general strategy of the Agricolan campaigns rendered it unlikely that that general should fail to penetrate any considerable area of the country he was conquering. The six-inch Ordnance Survey sheets boldly print "Roman Camp" at two sites near Kirkcudbright: (1) at Whinnyliggate, about 2½ miles N.-E. of the town; and (2) at Bombie, about the same distance E. The one-inch Ordnance Survey map is more cautious, and describes these sites as "Earthworks." A "New Map of Scotland," issued in 1801 by John Cary, Engraver, shows Whinnyliggate as "Camp." And in Stuart's *Caledonia Romana*[3] the "remains of three quadrangular encampments" are noted in Kirkcudbrightshire: (1) Whinnyliggate; (2) Bombie; (3) "near Drummore Castle, at a distance of a mile from the Solway Firth." A note from the Old Statistical Account[4] accompanies the passage: "They were all placed in a direct line with each other in the near vicinity of several circular camps."

There was also the possibility that the harbour and anchorage provided by the River Dee might mark the open-

1 "Agricola," c. 24.
2 c.f., I. A. Richmond in "Antiquity," XIV., p. 193.
3 "Edinburgh," 1847, p. 231.
4 "O.S.A.," Vol. XI., xxiv.

ing of a line of penetration into the country beyond or of a supply route to northern stations from west coast ports. The Inventory of Ancient Monuments in Galloway,[5] without committing itself, asserts: "As regards two of these (structures), the forts at Whinnyliggate (225) and Bombie (226) . . . there is nothing in their situation or form inconsistent with a Roman character." The third fort, at Dunrod, is ruled out on various grounds.

I.

All these considerations produced high hopes of opening a new chapter in Roman studies, and investigations began at Bombie in April, 1947. The detailed description of the site in the Inventory of Ancient Monuments[6] is as follows: "This fort is situated at a sharp angle of the road from Kirkcudbright to Bombie on its upper side and about ¼ mile to the W. of the latter place. The site is at the lower edge of a plateau which intervenes between the steeper slope of the hillside and the sharp fall of 50 feet or thereby to the glen of the Buckland Burn, and is somewhat on a point projecting from the general N. and S. trend of the hillside. Like, No. 225 (Whinnyliggate), it has been a rectangular oblong enclosure surrounded by a single trench," but almost obliterated by agriculture. "Its main axis lies N.-W. and S.-E. The N.-W. end is measurable with comparative accuracy, and has been about 98 feet in length, while the sides . . appear to have measured about 120 feet. The trench is fairly well defined at the N. angle and along the N.-W. face, where it measures some 34 feet in width. . . . The corners are rounded. . . . There is no indication of the entrance."

Unusually wet weather limited fieldwork to two days out of the week available, and the results were quite inconclusive. A section cut across the N.-E. ditch for 28 feet from the rampart edge at a point 75 feet from the N. corner

5 Vol. II. "Kirkcudbright." Introd. p. xxxviii.

6 "ibid," p. 118, No. 226.

showed, immediately under the turf, rotten and splintered rock for the whole length of the section, except at a point 15 feet from the start where soft earth was met with over a distance of 3 feet to a depth of one foot. No silt was observed, but the position might indicate the bottom of a ditch. The second section was cut southwards from the N. corner for a distance of 35 feet. For the first 12 feet, splintered rock was again encountered immediately under the turf: then came a 12 foot length of large water-worn stones laid on similar rock. These were not regularly laid and had been disturbed. A central patch seemed to be thicker and of slightly smaller stones. The beginning and end of the length of stonework were quite sharply defined, and the impression given was of a rampart base. The remainder of the trench (11 feet) was similar to the beginning and yielded nothing.

The possibility of a Roman fort had not yet been ruled out: although none of the characteristic *débris* of a Roman site had turned up, the thinness of the soil and the regular ploughing of normal crop rotation indicated that any remains would be scanty.[7]

Work was resumed in the last week of July, and continued until 9th August. A few days were sufficient to prove that Bombie was not a Roman fort. Not a trace was to be found of earth-work, turf-work, occupation, streets or barracks. The remains were those of a stone structure, built dry from local material, upon the natural rock. A knowe or outcrop of rock, one of the thousands in Galloway, suitable in size and locality, had been selected and fortified with a rampart of stones, of which the lowest layer remained in position where the soil was deep enough to protect it from the plough. Many other stones lay scattered about the

[7] Mr Jas. Nicholson informed me that the field was last ploughed in 1943. The custom is to plough diagonally across the field so that the "hintins" occur in the N.-E. and S.-W. ditches, the N.-W. ditch being the headrig, and the plough allowed to slide over the inner slope of the ditch into it. This practice has kept intact much of the N.-W. face.

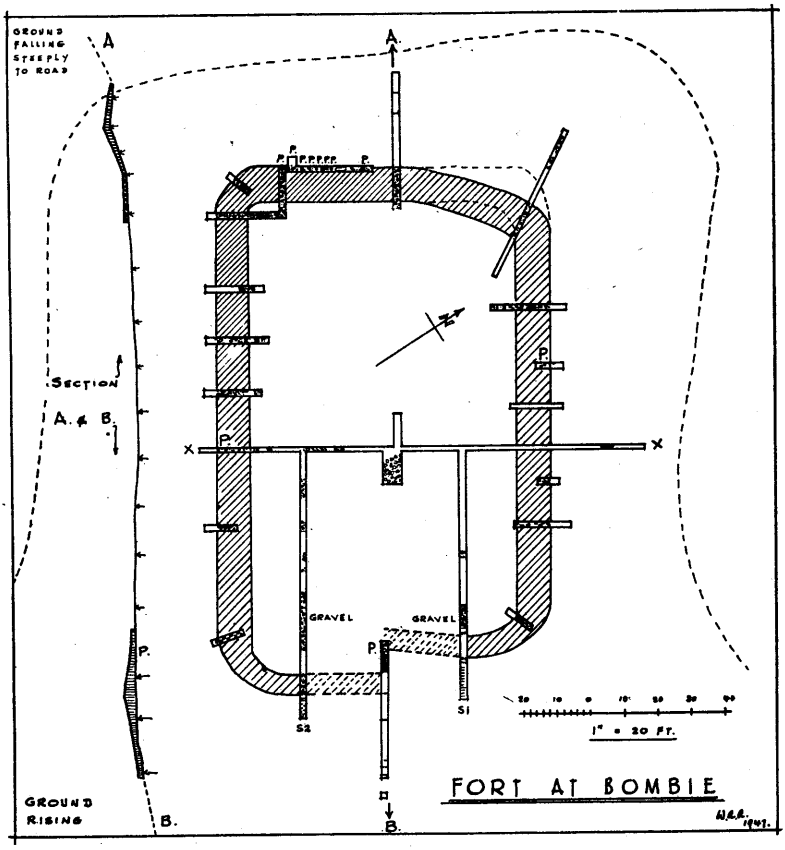


Fig. 1. Ground Plan and Section.

surface, scarred by the passage of farm implements: hundreds of tons of stone must have been raked and carted away in the course of years. A mass of them lies on the slope between the camp and the road. Not a single relic was found which might identify the builders, though some peculiarities in building may provide a clue. A careful surface study of Whinnyliggate "Camp" suggests that it is a similar structure in a better state of preservation and that more evidence may be found there. But it is probable that neither is of Roman construction and that proof of a Roman entry into Galloway must be sought elsewhere.

II.

Trenches were cut round the perimeter of the " camp " at Bombie on all the four sides to determine its extent. Two cuts were made across the ditches on the N.-W. and S.-E. sides in addition to the cut on the N.-E. side, made at Easter, and some areas in the interior were uncovered. The results on plan (Fig. 1) show a trapezoidal structure of a constant breadth of 98 feet between the outer limits of the rampart. The N. and W. corners are rectangular and rounded, giving the " Roman " appearance to the site. The S.-W. side is approximately 154 feet long and the N.-E. side about 122 feet between outer limits and neglecting the rounded corners. But the indications on the S.E. side both above and below ground are barely sufficient to lay down its line with accuracy. So much has been ploughed away along the probable rampart line, and so much soil has been washed down into the hollow of the " ditch " that one can only argue from the analogy of the remaining sides. These show (Fig. 2) in several places a rampart base of approximately 10 feet in breadth, set on the edge of a scarp which falls 15 to 25 feet to a rock bottom anything from 5 to 7 feet lower than the rampart level, before rising in a counterscarp of lower height which merges or falls into the surrounding ground. Of the three sections cut on the S.-E. side, the centre section was carried through just such a dip in the underlying rock until it again encountered rock lying at its normal depth from the surface, at a distance comparable to that on the other three sides. But on no side was any silt found in the " ditches," and it would be rash to claim that the ground had ever been stripped to the bare rock, even if it was artificially deepened at any point. The N. corner has been partially obliterated and erosion has been particularly severe at the S. corner. Stones were certainly found on the line of the S.-W. rampart but barely covered by a skin of turf. These stones at the S. corner matched the indications of stonework (at 72 feet) in the trench S.2 next to them, which produced nothing beyond that point. The slight stonework at the E. corner seemed also to fit

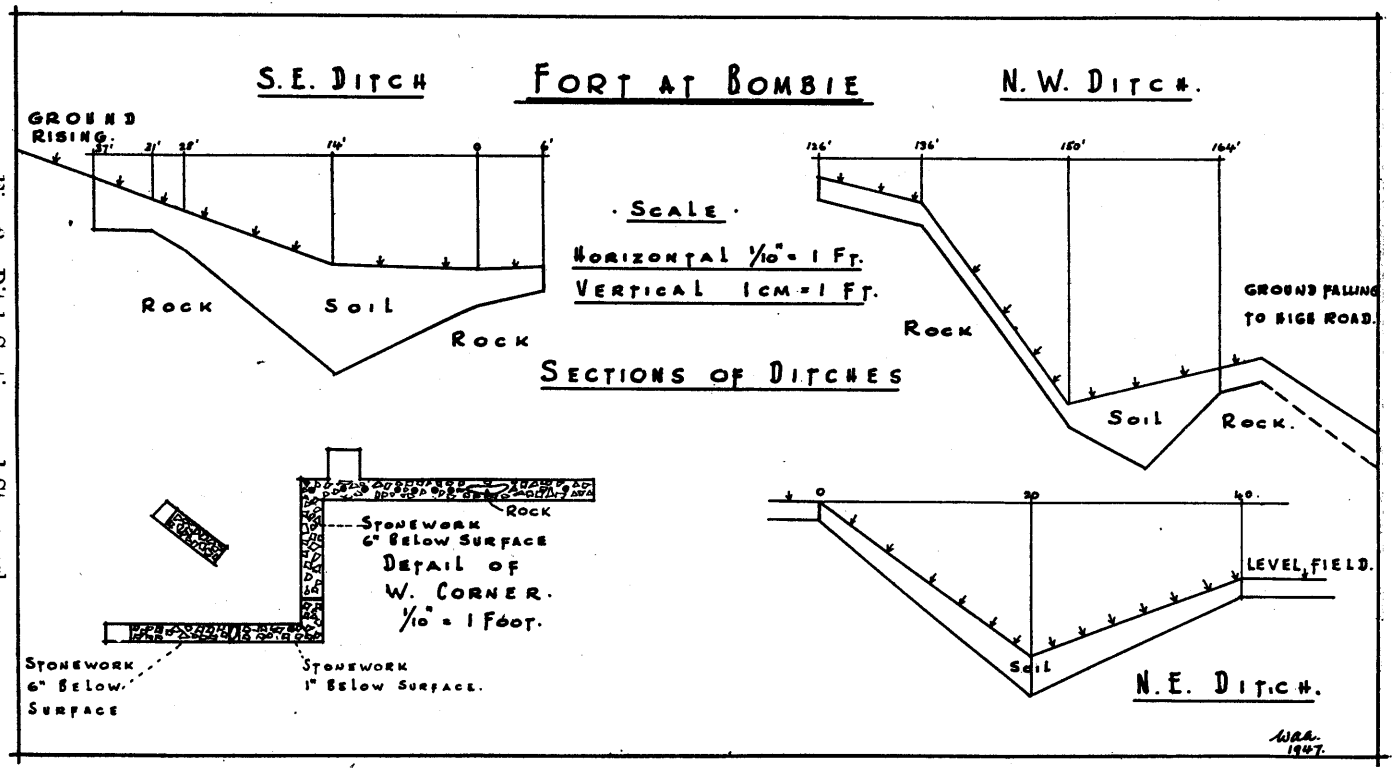


Fig. 2. Ditch Sections and Stonework.

the evidence in trench S.1, where the last indications of stonework appeared at 62 feet, a difference of 10 feet in the alignment of the halves of the S.-E. side. A patch of "occupation" soil, 6 inches deep and 7 feet long, in the centre trench may indicate the trodden earth of an entrance set in the gap of the unaligned walls. These, moreover, appear to have been only 6 feet thick on this side in contrast to the 10 foot base indicated elsewhere. It must not be overlooked, however, that on the N.-E. side no stonework whatever was found in two sections, the end of X trench and the cut 15 feet north of it: the entrance may be there.

The rampart base was best preserved at the W. Corner and along the S.-W. side. The two cuts at the W. corner both showed a drop of 6 inches to a lower layer of stones at 10 feet from the outer margin. Similar breaks appeared in the X. trench and in S.-W.3 at that distance. But the most interesting discovery was a set of "pillar" stones set along the outer edge of the rampart, intact, and, indeed, immoveable. These appear to have been so placed to steady the wall of dry stone, which on a 10 foot base could be raised to a considerable height, and prevent it from slipping. The "pillars" varied in shape and size, some rounded, others flat and slab-like, but all firmly set and packed with surrounding stones. Seven of these were uncovered at irregular distances in a continuous line at the W. corner, succeeded by a projecting piece of natural rock serving the same purpose, after which another "pillar" stone occurred.[8] A large rectangular block, 6ins. x 8ins. x 14ins., lying displaced among the stonework at the W. end of X. trench was now seen to have served a similar function and its original position was found. On the N.-E. side another "pillar" stone was found in section 4 in the remains of its packing, set in a hole cut in the rock at the rampart edge. Another appeared in the centre cut on the S.-E. side. And at the angle of the junction of the trenches at the W. corner, among the lower stonework, three shallow holes were noted,

[8] Stones and distances—

1	2	3	4	5	6	7	Rock	8	End
at	at	at	at	at	at	at	at	at	at
1ft.	4ft.	6ft.	9ft. 6in.	11ft.	13ft.	14ft. 6in.	17ft. to 20ft.	25ft. 6in.	28ft.

one foot below the surface, as if they also had once held uprights, either stone or wood, to revet the inside of the corner. About 3 feet of the N.-W. face at the second "pillar" stone was uncovered, and it was found that courses of stone had been laid on the natural rock to build up a level platform for the rampart. The "pillar" stones were set at this level here (Fig. 3).

The areas in the interior which were uncovered or inspected at different points were so remarkably unproductive that no systematic examination was undertaken. In the trenches on the S.-E. side a large gravelled area lying upon mixed soil was indicated in the S. quarter of the "fort," while in the E. quarter the gravel was limited to 6 feet and was set on forced soil in a wider depression. Owing to the thin covering of soil, all remains had been disturbed, and in many places natural rock lay immediately under the turf. No objects were found which might help to identify the builders, and no traces were apparent of the occupation of the site. This is not unusual in native structures, and may explain why so few have been examined. Evidently lack of possessions has always dogged the inhabitants of Scotland!

III.

It remains to discuss the purpose of this fort and its probable age. One deduction may be legitimately made from its plan. It has been built by people familiar with the Roman style of fortification.[9] The straight sides, rounded angles, and scarped ditches of Bombie all point to its defensive character: and if one accepts the thesis, its date must be after the 1st century. But how much later? Dare one put the lower limit at the time of Fergus, Prince of Galloway, the mounds of whose residence at Palace Isle may be seen

9 A comparison with the stone-built fortress at Castlehaven ("P.S.A.S.," XLI., p. 78) will show comparable skill in fortifying a selected site but a wide divergence in plan and method. Here is the regularity and uniformity of a rationalised system of defence: there the building of walls round the contours of the site. The broch-like masonry of Castlehaven and its enclosed court are the product of a different experience as well as the expression of a different purpose.

Fig. 3.

in the next valley to the west? Building after his date may reasonably be expected to be carried out with hewn stone and mortar. We are left with 1000 years for dating.

The natural strength of the site and the need for defences hint at dangers which must be guarded against. There is a route from the sea ascending gradually inland along the course of the Buckland Burn, 50 feet below the fort. Whinnyliggate, one and a half miles further north, stands high above the same route on its opposite bank. In later times Bombie Castle stood midway between the two on the same route. Was Bombie fort then a defence against sea-borne invasion? If so, were the Norsemen the invaders? Or Scots from Ireland? Or was it itself the creation of the invader designed to watch and overawe the population of the hilltop forts round it? These forts are now assigned to the 1st and 2nd centuries, and the date may thus be narrowed down: but until a similar structure is examined which provides evidence of occupation, little is to be gained by speculation. It is to be hoped that this examination of Bombie will be followed up by others in the district and the wealth of native sites in the Stewartry explored more actively. The reward will be great.

Thanks are due to Sir Chas. Hope-Dunbar, Bart., for permission to dig the site of the fort, and to Mr R. C. Reid and members of the Society for their interest in the project and their visits to the excavations. I wish to record my special gratitude to Mr Stewart Nicholson of Bombie and his family for their unfailing kindness and help both at Easter and summer while the work was going on, and for permitting the disturbance of their ground. I have to acknowledge the active assistance of Mrs Anderson, Miss E. H. M'Aulay, and Miss Heather Nicholson in the work of excavation. I am also greatly indebted to Mr John Ross, Kirkcudbright, for his help in many directions and for his instrumental survey of the site, which has enabled me to provide reliable sections. Finally, I wish to thank Mr John Clarke, M.A., for providing from the funds at his disposal this year a sum sufficient to meet the cost of labour and the incidental expenses of the enquiry.

Dowies.

By R. C. Reid.

The present farmhouse of Dowies stands amidst the earliest land holding in Wigtownshire acquired by the family of Maxwell of Monreith. It is the earliest surviving edifice on their original estate, and if, as I think, it is not their original home, it now represents their earliest residence still existing.

That family have been owners of these lands since about the year 1450. From time to time great additions have been made to this first holding, till about 1800 it reached its zenith in size and importance. But death duties and two world wars have caused considerable diminution, though it is still one of the most substantial estates in the county.

This, the first extant home of the Maxwells, is, curiously enough, not described at all in the Report of the Historical Monuments Commission, though there is this reference in the Introduction to that Report:

> "The Doweis or Old Place of Monreith, the original abode of the Maxwells of Monreith, though now altered and occupied as a farmhouse, still retains its massive walls and other features which indicate its 15th century date."

The Commission's report assigns a 15th century date to this building—and then dismisses it from their minds. But I am not prepared to accept that dating.

Though reconstructed, much of the original building survives. Several of the windows have not been touched, and various carved stones have been carefully preserved by being built into the reconstruction. The wheel staircase is substantially in its original form. The present entrance to the building is modern, the original doorway having been at the foot of the newel stair, where externally there is still some indication of the lintel. Above it is a square recess

which must once have contained a coat-of-arms. Perhaps when this house was forsaken this armorial device was removed to Myrton. It will be worth while to make a search for it. The harling on the exterior of the building, though it looks ancient, must date from the reconstruction.

When about the year 1450 Edward Maxwell, second son of Herbert Lord Maxwell, first appears in possession of these lands, his ownership was not derived from purchase but from marriage with an heiress. He married the eldest of the four daughters of the last of the de Mundeville family of Tinwald and Monreith, receiving with her one quarter of those two properties. Gradually he and his successors acquired the quarters of the other three heiresses, though it was not till the 17th century that the last quarter came into their hands. It is rather a remarkable achievement that, though five centuries have elapsed since Edward Maxwell married the de Mundeville heiress, there has only been one failure of direct heirs male to this estate.

Some 300 yards north of this building is a site marked on the Ordnance Survey as Moure Castle. It is now a mound with a jumble of stones overgrown with weeds. That mound was apparently the residence of Edward Maxwell, not, I suggest, a stone-built tower, but a stockaded wooden manor house. As late as 1564 a charter by Margaret Maxwell, Lady of Mureth, was sealed "at my manor of Mowir." It therefore seems that this building dates later than 1564. In 1573 a notarial instrument was given "at the principal mansion of Mowr." I suggest that this last notice refers to this building. Structurally it approximates to the date of 1600, or at least late 16th century. "My Manor of Mowir" means, of course, nothing more than the house on the moor, for at that date this land could have been little else but moorland.

It would seem that when this house was built the place-name of the original manor house was moved with the residence and this house known as the Moure. For at the Moure in 1630 the laird of that date was certainly residing.

The place-name Dowies would appear to be a more

recent application. I have examined every document amongst the Monreith and Myrton papers prior to 1700, and am unable to find a reference to the Dowies so I am led to the conclusion that, though it looks like an old place-name, yet it is a modern application. Dowies in Gaelic signifies the dark hill. It stands on the flank of the Fell of Barhullion.

Reference to another ancient place-name may well be given here. It would seem that neither Dowies nor Moure may have been the original name of the residence—at least before the Maxwells settled here. When in 1482 Cunynghame of Aiket resigned in favour of Edward Maxwell of Tinwald his quarter of the Mundeville estate the deed was sealed at Ballingrene, the capital messuage of the Mundeville barony,[1] and when Robert Boyd was infeft in another quarter of that barony the following year the instrument was dated at Ballingray.[2]

In his *Evening Memories* Sir Herbert Maxwell says that Sir William Maxwell, the first Bart., in purchasing in 1684 the lands of Myrton-M'Culloch, moved his residence to Myrton Castle as more desirable than *Ballingrene*, now known as Dowies, where his forebears dwelt as Lairds of Monreith. He decided to bring over the Celtic Cross that stood beside the old house of Ballingreen on an elevation known as the Mowr. In transporting it the cart capsized crossing the burn between the baronies of Monreith and Myrton, the shaft was broken in two, and flames are alleged to have burst forth from the fracture; and an aged woman who witnessed the accident warned the Laird that ill-fortune would befall him and his family if that cross were taken from the old house. Impressed, Sir William caused the cross to be replaced on the Mower. There it remained till Sir Herbert's father, finding it was set up over the burial place of a favourite horse, thought that he would treat it more honourably, and had it erected where it now stands before Monreith house.

1 "R.M.S.," 1424-1513, 1499.
2 "Maxwell Inventory," No. 44

The earliest form of the place-name Moure was Murethe, which in *Ragman Roll* (1296) is represented by the surname of John of Meyureth, who may well have been of Anglo-Norman extraction. This is the only reference we have to his existence. An hundred years then pass before we hear of another owner of Murethe — Sir Henry de Mundeville, father of the four heiresses, the eldest of whom was married to Edward Maxwell. The early records of Scotland are singularly tenuous.

Edward Maxwell was succeeded by his grandson, Sir Edward Maxwell of Tinwald and Monreith, who was knighted shortly before Flodden, where he fell with his Sovereign and most of the nobility and gentry of Scotland. His son died in 1526, leaving two infant daughters, to whom Robert Lord Maxwell was tutor. A long minority followed, which enriched the coffers of their ennobled guardian. When the two girls came of age in 1541 Lord Maxwell was in a position to compel them to resign their lands in his favour, and then proceeded to grant them charters. To the eldest he granted Tinwald; to Margaret, the youngest, he granted these lands of Murethe. But the lands were no longer held direct of the Crown but in feu of Lord Maxwell.

Margaret Maxwell married her cousin, Mr Herbert Maxwell, son of William Maxwell of Blairboy, the ceremony taking place in Tinwald Kirk on 31st January, 1541-2. She was lady of Murethe for exactly 50 years, dying in 1591— the only heir female in 500 years. I think that this house was built in the later period of her life. There is no evidence that the Maxwells ever lived here or in Wigtownshire before her days. They were based on Tinwald. Her son, the first John Maxwell, only survived her some 10 years. Her grandson, the second John Maxwell, succeeded in 1602 and died in August, 1630, and the inventory of his effects at death makes very poor reading. The document, which was given up by the widow, bears the confirmation of William Daliell, then Commissary of Wigtown. It records: Three kye, three stirks, 6 ewes, twa furneist beddis, ane buird, ane common kist, ane pott, ane pan, ane uther lytill

pott, ane lytill kist; and resting of the utenceills with the abuilzementis of the defunctis bodie "—valued at £92 6s 8d. There were no debts to or from the defunct. We who have to put up with utility furnishing and complain about austerity can have no conception of how our forebears lived and died. This truly humble personal estate was quite common in Scotland in days when there were no estate duties to encourage an executor to understate a valuation or conceal material facts. But it is rather remarkable that this inventory should be so meagre in view of the rapid increase in the size of the estate during the long life of the next laird.

Until 1630 we can say that the Maxwells were small lairds, though of noble strain. They took no part in the general scramble for Church lands that took place at the Reformation. They would seem to have held aloof from that very profitable opportunity. And though their later and greatly enlarged estate was to contain a large proportion of Church lands, these were all acquired after the Reformation by purchase from those who at that economic upheaval had less scruples in grabbing what they could.

The next laird, William Maxwell, was actually residing here the year his father died. He was then certainly 21 years of age, and he was laird for over 40 years. He is the first who is known to have added anything to the original estate. It is not known how he was able to finance these acquisitions, but he may have been in the law, which has always yielded prolific rewards to the successful. He lived through a large part of the Covenanting era. His eldest son, John Maxwell, actively supported the Covenant, and sentence of forfeiture was passed on him in 1667. A few months earlier his astute father had protected himself with a certificate from the noblemen and clergy of Galloway to the effect that he had had no part in the recent rebellion—which certificate was embodied in a precept of protection from Lord Rothes to the military forbidding them to molest William Maxwell.

This document can only be taken at its face value.

For it may well be that, as in many other cases, the family was seeking to ensure its preservation in very difficult times, so the father supported the King and his eldest son joined the Covenant. A known incident tends to support this view. Tradition asserts that during the troubles (1668) William Maxwell, on business in Edinburgh, was staying in the house of Nicol Moffat in the Horse Wynd. The house was entered by a search party looking for Covenanters, and, though Maxwell had received Lord Rothes' letter of protection only the year before, yet he thought it expedient to hide in an empty oatmeal cask. A soldier jokingly gave the barrel a kick but did not look inside, and then the party went elsewhere. In that moment of dire agitation William Maxwell must have realised that the barrel offered better security than the Crown letters of protection. I think we may say of him that if his sympathies lay in one direction, his aspirations lay in another.

His eldest son had fought at Pentland and fled to Ireland, where he died. His second son, perhaps financed by his father, acquired from John Vaus of Barnbarroch a large part of the parish of Mochrum known as Mochrum Loch, and was made a Baronet in 1681.

It has been said that no old Scottish house is complete without its ghost, no family of repute without its murder. I have not heard that the nightly slumbers of Mr Mure, the present occupant of this house, have been disturbed by any apparition, but one murder at least adorns the annals of the family. Indeed, the late Sir Herbert Maxwell recounted it himself in his own inimitable style. The murder took place at Garrarie—a farm lying between the Moure and the sea—and John Maxwell of Garrarie, first cousin of the Laird, was charged with the crime. He had taken over under mortgage the lands of Glassok in Penninghame that had belonged to John M'Kie. M'Kie, being destitute, became a dependant of Garrarie and a household man there. According to the charge, Maxwell wearied of M'Kie's presence and decided to murder him. One night as he was returning to Garrarie, Maxwell and his son waylaid M'Kie, bound

him hand and foot, then strangled him and cast his body in a peat moss called the burn of Ravenstone. In April, 1619, the Maxwells, father and son, were brought before the Court of Justiciary and lodged in Edinburgh Tolbooth. Both stoutly denied the crime, " upon thair kneyis, with grit and soleme aithis, they affirmit thame selffis to be altogidder innocent." Such is the graphic record of the court proceedings. But the verdict went against them in the end. " John Maxwell of Garrarie and his son were found guilty and beheaded, all their goods and lands being forfeited to the Crown "—so wrote Sir Herbert Maxwell, and in view of the court record he could not have written otherwise.

But research amongst the family papers and other sources provides a different ending to the proceedings of the court. However strong may have been the circumstantial evidence—no witness saw the deed—there could have been but few of the neighbours of the accused to credit the charge. The Crown was unable to get any man of local standing to serve on the assize. No less than seventeen neighbours refused to do so, and suffered the inevitable fine of 100 merks each—a big sum in these days. Not a single Wigtownshire man served on the assize. One man alone was willing—a cousin, Edward Maxwell of Laroch—and he was only rejected after a lengthy legal argument, seeing that there was a deadly feud betwixt him and the accused, and because he had also given evidence against them. That a witness for the prosecution should also serve on the jury did not seem to outrage the sense of elementary justice of the 17th century. In the end the challenge was allowed — " the Justice in respect there is na penurie of assysouris ordains him to stand by."

But neither the Crown nor the Privy Council were certain of the justice of the verdict. The execution was twice postponed. Finally, in April, 1620—a year after the first proceedings—the Crown sent this letter to the Privy Council:

" We are weill pleased to dispense with the lyveis of John Maxwell of Garrarie and George Maxwell, his son

notwithstanding the sentence of death pronounced against them, for the supposed murder of John M'Kie of Glassok."

So Garrarie enjoyed another 10 years of life, but the forfeiture of his estate still held good.

But we must return to this house. Two years after William Maxwell became the first Baronet he purchased from Sir Godfrey M'Culloch the estate of Myrton, which had belonged to the M'Cullochs from before Bannockburn. To Myrton the Baronet removed his residence, forsaking this old house, which fell on evil days. It may even have been allowed to decay till some time in the last century it was restored and modernised as a farmhouse.

Myrton itself was not to remain for long the family residence, which was moved to more spacious quarters when Monreith House was built. And to-day the march of time has just reversed the process, and, I am told, Monreith is about to be vacated in favour of Myrton.

The hand of the clock is revolving backwards, and in the days to come, when we have all been nationalised, when the freedoms that were once our pride have been forgotten and we all dwell in prefabricated huts and work in closed shops, it may well be that these old walls will once again ring to the youthful laughter of the family of some future laird of this ancient house of the Moure.

22nd NOVEMBER, 1946.

Chairman—The PRESIDENT.

Scottish Seas and their Products.

By Dr. A. C. STEPHEN.

This lecture, which was illustrated with slides, gave a very detailed account of the herring and haddock fisheries and the now extinct whale fisheries of Scotland, and suggested causes for their waxing and waning.

List of the Birds of the Stewartry of Kirkcudbright.

By ARTHUR B. DUNCAN, B.A., F.Z.S., M.B.O.U.

PART II.

SWIFT.

Apus apus apus (L.). A summer visitor and passage migrant in both spring and late summer. As this bird is primarily a town dweller, it is not numerous with us, though it occurs both in our towns and in several of the larger villages and there are a few scattered colonies at some of the country houses.

NIGHTJAR.

Caprimulgus europæus europæus L. A somewhat scarce visitor with us, at one time apparently much more common: it frequents rough heather and bracken ground but there are large areas of apparently suitable terrain where it is no longer found.

BEE-EATER.

Merops apiaster L. Has been recorded once.

HOOPOE.

Upupa epops epops L. There are only two records. The one mentioned by Service and one shot in the early part of the week ending 14/4/23. (Learmonth, Scot. Nat., 1923, p. 94.)

ROLLER.

Coracias garrulus garrulus L. A male was shot at Mabie (Troqueer) on 9/9/89.

KINGFISHER.

Alcedo atthis ispida L. A resident on the slow flowing parts of the rivers and more often seen in winter when it comes right down into the estuaries. This bird with us appears to be much wilder than it is further south.

GREEN WOODPECKER.

Picus viridis pluvius Hart. Has been reported twice.

GREAT SPOTTED WOODPECKER.

Dryobates major Anglicus (Hart). Up to the beginning of the century was a more or less regular winter visitor but it began to nest with us about 1905 and is now found in nearly every suitable wood in the eastern half of the county and is moving westwards every year. To nest a pair of these woodpeckers seem to need about five acres of woodlands, and preferably deciduous trees, though this may well be because the deciduous plantations in this district are rather older and more insect infested than the coniferous.

LESSER SPOTTED WOODPECKER.

Dryobates minor comminutus (Hart). Has occurred once. (Service, 1902.)

WRYNECK.

Jynx torquilla torquilla L. Has occurred once.

CUCKOO.

Cuculus canorus canorus L. A common summer visitor particularly frequenting the edge of the moors. In this area the males appear to outnumber the females to a very marked degree, and I have the impression that the difference in numbers between the two sexes is greater here than further south.

SNOWY OWL.

Nyctea scandiaca (L.). There are a few records of this bird's occurrence in winter but none of very recent date and it does appear that the Snowy Owl visits this district, and indeed this country, even less frequently than formerly.

EAGLE OWL.

Bubo bubo bubo (L.). The attempted breeding of this bird in the county in 1941 recorded by the Duke of Bedford is one of the most remarkable examples of sporadic breeding of a bird well outwith its normal range. (*British Birds*, Vol. 36, p. 180.)

LONG-EARED OWL.

Asio otus otus (L.). The scarcest of our four resident

owls and, again, a bird that tends to favour small coniferous woods near the edge of the moor.

SHORT-EARED OWL.

Asio flammeus flammeus (Pontopp). Although Service recorded this as the most scarce of our resident owls, this is not now the case, as it is a regular breeder on the grassy type of moorland and is often particularly thick in newly planted ground and ground which has been fenced for planting. It seems fairly clear that on this type of land (ungrazed grass land) conditions are at their optimum for grass mice (*Microtus*) and it seems likely that the presence of these mammals is essential for the breeding of this owl. In any case it is particularly noticeable that when this land is in the right condition the Short-eared Owls are there. As the trees grow up the owls leave the area. The local distribution of the Short-eared Owl is a nice illustration of a bird that is tied to a particular ecological niche rather than to a geographical locality.

SCOPS-OWL.

Otus scops scops (L.). Pullen (*Trans.* D. and G. N.H. and A.S., Ser. 3, Vol 24) has given a good account of the one local appearance of this bird in 1944. This particular bird lived in captivity with me for some weeks and I had many opportunities of watching its charming threat display.

TAWNY OWL.

Strix aluco sylvatica Shaw. The most numerous of our owls and apparently strictly resident and, although found in every type of woodland, its population is more dense in deciduous than in coniferous woods.

BARN OWL.

Tyto alba alba (Scop). A quite common resident particularly in the better cultivated areas, although one does find isolated pairs breeding in rocky ravines high up in the hills.

PEREGRINE FALCON.

Falco peregrinus peregrinus Tunst. Despite persecu-

tion a good many birds still breed with us both on the coast and inland. In the winter it becomes more widespread and its numbers are possibly increased by immigration.

HOBBY.

Falco subbuteo subbuteo L. Has occurred once or twice.

MERLIN.

Falco columbarius æsalon Tunst. A few pairs breed with us every year; in the autumn and winter this small but lovely falcon becomes much more widely spread and definitely more numerous, its numbers being increased by immigration.

KESTREL.

Falco tinnunculus tinnunculus L. This is the most numerous of our local falcons and is catholic in its choice of ground, being found alike breeding on the sea cliffs, trees in the arable country, and again on cliffs in the hills. There is a definite increase in numbers in the autumn and a passage of birds also in the spring.

GOLDEN EAGLE.

Aquila chrysaëtus chrysaëtus (L.). Became extinct in the sixties and in the first quarter of this century nested only occasionally. Since that date this finest of our birds seems to have been somewhat more successful.

ROUGH-LEGGED BUZZARD.

Buteo lagopus lagopus (Pontopp). Has occurred occasionally and irregularly in the winter.

COMMON BUZZARD.

Buteo buteo buteo (L.). Some few pairs still breed in one somewhat restricted area of the county but in recent years have been somewhat unfortunate. There is a considerable movement of buzzards through the county in both the autumn and the spring.

MARSH-HARRIER.

Circus æruginosus æruginosus (L.). An occasional vagrant.

MONTAGU'S HARRIER.

Circus pygargus (L.). An occasional vagrant.

HEN-HARRIER.

Circus cyaneus cyaneus (L.). One of the birds extirpated by modern gamekeeping in the last century when it was apparently common enough. It is now only an occasional visitor chiefly in the winter months though it is one of the species which may yet be regained, if not by increased humanity, at least by less efficient, or less ruthless, gamekeeping.

[GOSHAWK.

Accipiter gentilis gentilis (L.). Although there is an old record which Service accepted, I prefer to retain this bird within square brackets.]

SPARROW HAWK.

Accipiter nisus nisus (L.). A bird that delights in small woods. It has proved more than capable of holding its own against the gamekeepers when other less noxious birds succumb.

[KITE.

Milvus milvus milvus (L.). A bird whose claim to inclusion on the list rests on historic grounds and of which there does not appear to be a reliable record for at least 100 years. It is doubtful what amount of faith one can put on records more distant than that.]

WHITE-TAILED EAGLE.

Haliæetus albicilla (L.). The last pair recorded as breeding in the county nested in 1852 and the Duchess of Bedford records that a bird taken from the nest in that year survived until 1900. (*British Birds*, Vol. 3, p. 78.)

HONEY BUZZARD.

Pernis apivorus apivorus (L.). Has been recorded once, an individual being captured at Waterside of Troqueer (Troqueer) on 17/1/01. (Service, A.S.N.H., 1901, p. 80.)

OSPREY.

Pandion haliætus haliætus (L.). Used to breed on more

than one loch in the Stewartry but for long has only been a rare and occasional visitor, usually in the spring months.

HERON.

Ardea cinerea cinerea L. Resident, nesting in several old-established heronries and also sporadically either as an isolated pair or two or three pairs together.

GREAT WHITE HERON.

Egretta alba alba (L.). Service writes: "Sir William Jardine mentions in 1842 the supposed occurrence on the Solway of the Great White Heron and I have been assured that one was seen in the Dee in 1879." The first record was in Cumberland and has been shown to be erroneous. (H. A. MacPherson, *Zool.*, 1888, p. 33). And I see no reason for placing any more credence upon the second.]

NIGHT-HERON.

Nycticorax nycticorax nycticorax (L.). Has occurred once. Although Gladstone includes this bird in *The Birds of Dumfriesshire* it seems equally probable that, in fact, it was secured in the Stewartry of Kirkcudbright as Sir William Jardine wrote in 1842 that it "had been killed a day or two previously on the banks of the Cluden, a tributary of the river Nith in Dumfriesshire. (*Nat. Lib.*, 1942, Vol. 12, p. 152.) It is clear from this that it is the Nith that is in Dumfriesshire and not the place where the bird was secured and, as the Cluden forms the boundary between the two counties, I propose to include the species in the present list although unwishful to poach on my neighbour's preserves.

LITTLE BITTERN.

Ixobrychus minutus minutus (L.). Has occurred twice, both occurrences being in recent years, one bird (a male) being in my collection.

BITTERN.

Botaurus stellaris stellaris (L.) Probably bred at one time but is now only an occasional vagrant, usually in the winter months.

WHOOPER SWAN.

Cygnus cygnus (L.). Some few family parties and occasionally larger flocks spend the winter in the county but the species is more numerous in the late autumn, about November and again in April and well into May. I have seen odd birds of recent years even in June.

BEWICK'S SWAN.

Cygnus bewickii bewickii Yarr. Service considered that this species was more numerous than the Whooper and it undoubtedly used to be a regular winter visitor. I have no records of this bird in the last ten or twelve years and indeed it appears to have got very scarce as a winter visitor throughout the whole of Scotland and it may be that some disaster has befallen the Bewick's Swans in the area from which our wintering birds are drawn.

MUTE SWAN.

Cygnus olor (Gm.). Presumably this bird is descended from birds that were originally introduced and kept in a state of semi-domestication though they do not now rely to any important extent on human bounty. There seems to be a very high proportion of non-breeding individuals and this may be correlated with the area of water required to support a breeding pair.

GREY LAG-GOOSE.

Anser anser anser (L.). A winter visitor whose headquarters in the area are centred on the estuaries of the Nith and the Cree.

WHITE-FRONTED GOOSE.

Anser albifrons (Scop.) There are considerable flocks of these birds wintering in the Stewartry every year. I have refrained in this instance from using a trinominal as there is some doubt as to which race these birds belong. My own view is that they are of Greenland origin and should be referred to *gambelli* but as this race does not appear, as yet, upon the British list it seems best to leave the question open temporarily.

BEAN GOOSE.
PINK-FOOTED GOOSE.

Anser falalis fablis (Lath.). *Anser fabalis brachyrhynchus* Baillon. The county provides one of the chief headquarters in Scotland for the wintering of the Bean Goose, of which we have a goodly number. The Pink-footed Goose also occurs in numbers and appears to be ousting the Grey Lag to some extent in the Nith estuary. The wintering grounds of the various species of geese seem to change, not from year to year, but over longer periods, and the history of these changes in the Stewartry needs more space than can be given to it here. However, the above information summarises their present distribution and we are indeed fortunate to have the grey Geese represented so well not only in total numbers but in such variety.

SNOW GOOSE.
GREATER SNOW GOOSE.

Anser hyperboreus hyperboreus Pall. *Anser hyperboreus atlanticus* (Kennard). There were three Snow Geese during the month of October, 1922, on the Solway as recorded by M. Portal in *British Birds*, Vol. 16, p. 327, and the first Greater Snow Goose ever obtained in Scotland was shot in October, 1920, out of a flock of five, and another on the 18th of February, 1921, near Castle-Douglas, for a fuller report of which see Eagle Clarke, *Scot. Nat.*, 1921, p. 48.

BARNACLE-GOOSE.

Branta leucopsis (Bechst). This goose is chiefly seen at autumn and spring migrations and less frequently during the winter but these winter appearances depend chiefly upon the activities of gunners in other neighbouring localities.

BRENT GOOSE.

Branta bernicla bernicla (L.). An erratic and an irregular winter visitor. The few that have been examined have been of the dark-breasted or typical race.

[CANADA GOOSE.

Branta canadensis canadensis (L.). I do not feel inclined to release this comparatively recent introduction from square brackets as it still remains so far as this county is concerned in a state of domesticity.]

SHELD-DUCK.

Tadorna tadorna (L.). A very abundant resident which is most numerous during the summer though there are goodly numbers with us all the year round except during August and early September when practically the whole of our birds emigrate to undergo the moult elsewhere.

MALLARD.

Anas platyrhyncha platyrhyncha (L.). This is our most common resident duck in inland waters and our local bred ducks appear to be truly resident. In October considerable numbers of winter visitors arrive and largely frequent coastal areas although on their first arrival many are found inland.

GADWALL.

Anas strepera L. A scarce winter visitor but probably a regular one in very small numbers.

TEAL.

Anas crecca crecca L. There are no great numbers of breeding Teal although it would be an exaggeration to describe the bird as scarce or even uncommon, but in autumn and winter there is a very considerable increase in their numbers particularly on the coast.

GARGANEY.

Anas querquedula L. Has been recorded rarely but it may be overlooked owing to its similarity in autumn to the Teal.

WIGEON.

Anas penelope L. A few pairs nest regularly and in the autumn and winter there are vast numbers on the coast and considerable numbers inland. The birds arrive in two waves in the autumn—the first probably of Icelandic origin and the second probably from continental Europe. When the second wave arrives prior to the departure of the first, the firth is crowded with literally countless thousands of these beautiful and lively duck.

PINTAIL.

Anas acuta acuta L. Although scarcely ever noticed inland, very considerable numbers winter on the Solway.

SHOVELER.

Spatula clypeata (L.). In some parts of the county considerably outnumbers the Teal as a nesting bird but is not so widely distributed. In the winter fairly large flocks are found in restricted localities on the coast but as to whether these are locally bred birds or not we are at present utterly ignorant.

POCHARD.

Aythya ferina (L.). A few pairs now nest in some of the lochs in the arable areas of the county and in winter it is a common enough visitor but at this season seems more partial to the remoter hill lochs.

TUFTED DUCK.

Aythya fuligula (L.). There are a few birds breeding on most of the suitable lochs and in winter they collect into fair sized flocks on the larger inland waters.

SCAUP.

Aythya marila marila (L.). A common winter visitor to those areas of the coast that are rich in mussel beds. Of recent years pairs of Scaup have been seen on fresh water in the late spring and it may not be long until this bird breeds with us.

GOLDENEYE.

Bucephala clangula clangula (L.). They are never in any great numbers. Can be seen in the winter on most of our larger inland waters and, in hard weather, on the firth.

LONG-TAILED DUCK.

Clangula hyemalis (L.). A regular winter visitor in small numbers when an occasional bird, usually immature, can be found consorting with the Scaup and the Scoter.

EIDER.

Somateria mollissima mollissima (L.). This is a strangely scarce duck on the Solway and although it bred

in the Stewartry in 1908 its present position appears to be that of an irregular winter visitor.

COMMON SCOTER.

Melanitta nigra nigra (L.). This is a very common winter visitor in large numbers to the firth and indeed birds of this species may be seen, often in some numbers, throughout the summer months. Of recent years pairs have been noticed on fresh water in the spring but there has been no evidence of breeding or attempted breeding.

VELVET-SCOTER.

Melanitta fusca fusca (L.). Considering the large numbers of Common Scoter that frequent the firth, the Velvet-Scoter is very uncommon although it is a regular visitor in the winter.

GOOSANDER.

Mergus merganser merganser L. Breeds regularly in the head waters of, I believe, all the Stewartry rivers and in winter is to be seen in some numbers on most of the larger inland waters and on the larger rivers.

RED-BREASTED MERGANSER.

Mergus serrator L. Unlike its near relative has bred with us for many years but instead of favouring the upper reaches it is found on the lower reaches of the rivers and the estuaries and, in winter, scattered up and down the coast.

SMEW.

Mergus albellus L. An irregular winter visitor mainly to inland waters, being chiefly immature birds or females. It is a bird that definitely occurs in greater numbers in a severe winter.

CORMORANT.

Phalacrocorax carbo carbo (L.). A numerous resident in the firth where the shallow water and sandy bottom provide ideal conditions. Is also to be seen on all the larger rivers and lochs. The inland nesting place at Loch Moan

is now deserted but there are several flourishing, though persecuted, rookeries on the coast.

SHAG.

Phalacrocorax aristotelis aristotelis (L.). There are usually a few Shags on the firth towards the west of our boundary but the upper reaches are unsuitable as this bird prefers a more rocky bottom and somewhat deeper water than the Cormorant. It is occasionally noticed inland.

GANNET.

Sula bassana (L.). Although now nesting not far to the west of our boundary the Gannet is no more than a scarce and casual visitor usually storm blown, but in the summer it does venture into our area with somewhat more regularity than formerly.

STORM PETREL.

Hydrobates pelagicus (L.). Has occurred occasionally as a storm casualty.

LEACH'S FORK-TAILED PETREL.

Oceanodroma leucorrhoa leucorrhoa (Vieill). Its occurrences are similar to those of the Storm Petrel though they appear to be somewhat more frequent.

MANX SHEARWATER.

Puffinus puffinus puffinus (Brünn). A somewhat casual visitor far out in the firth and occasional examples are picked up inland when storm driven.

FUMLAR.

Fulmarus glacialis glacialis (L.). Is now regularly seen in summer prospecting cliffs as far up the firth as Colvend and it is likely that it will very shortly join our list of breeding birds.

GREAT CRESTED GREBE.

Podiceps cristatus cristatus (L.). A few birds breed regularly and there is usually a good sprinkling of non-breeding birds on the lochs and also on the firth where they occur in small parties during the summer and more commonly as single birds during the winter months.

RED-NECKED GREBE.

Podiceps griseigena griseigena (Bodd). A scarce and irregular winter visitor to the firth.

SLAVONIAN GREBE.

Podiceps auritus (L.) The least uncommon of the three non-resident Grebes and it can be seen on the firth with fair certainty any day during the winter.

BLACK-NECKED GREBE.

Podiceps nigricollis nigricollis Brehm. While hardly as scarce as the Red-necked it can only be described as a rare winter visitor to the firth.

LITTLE GREBE.

Podiceps ruficollis ruficollis (Pall). Resident, but in very much smaller numbers than one might expect in a locality where there are so many suitable breeding places.

GREAT NORTHERN DIVER.

Colymbus immer Brünn. A regular winter visitor but in smaller numbers than either of the two smaller Divers.

BLACK-THROATED DIVER.

Colymbus arcticus arcticus L. A fairly numerous winter visitor to the firth though it is hard to state the exact proportions in which the three Divers occur as field identification in winter, except under better conditions than usually obtain on salt water, is somewhat unsatisfactory.

RED-THROATED DIVER.

Colymbus stellatus Pontopp. The most numerous of the three Divers on the firth this bird has also been noticed inland during the period of autumn migration and occasionally in the spring.

WOOD PIGEON.

Columba palumbus palumbus L. Still a common enough resident wherever there are trees though the stock of birds has been seriously depleted of recent years by the high prices ruling for non-rationed food. In winter large flocks of

immigrants rove in search of food, settling down for brief periods wherever there is an ample supply, and on both spring and autumn migration there is often a considerable passage.

STOCK-DOVE.

Columba ænas L. A resident and, to some extent, summer visitor, this bird, which only colonised in the county in the last quarter of the last century, has been declining in numbers in recent years.

[ROCK-DOVE.

Columba livia livia Gm. I am retaining brackets for this species as I am doubtful as to whether there are any entirely purely bred birds on our coast. Although birds of the Rock-Dove type nest quite numerously on the cliffs there appears to be a strong mixture of domestic blood.]

TURTLE DOVE.

Streptopelia turtur turtur (L.). Occurs with fair regularity in both spring and autumn and appears to be becoming more regular in its visits annually and I would not be surprised if it bred with us in the near future.

PALLAS'S SAND-GROUSE.

Syrrhaptes paradoxus (Pall). Occurred within our limits in the great irruptions of 1863 and 1888 and in the latter year in some considerable numbers.

BAR-TAILED GODWIT.

Limosa lapponica lapponica (L.). Sometimes met in fair numbers on both passages, some few winter, and occasionally flocks remain on the shore throughout the summer, but considering the extent of suitable ground one cannot say that this bird is as numerous as one would have expected.

BLACK-TAILED GODWIT.

Limosa limosa limosa (L.). Although formerly a very scarce passage migrant, in recent years has become much more regular and more numerous in the autumn months.

CURLEW.

Numenius arquata arquata (L.). Our nesting birds return to the hills and uplands in the third week of February and have greatly increased as breeding birds over the last 20 years. By the month of August they have left for the shore and many emigrate although there are always a goodly number on the coasts both in winter and non-breeding birds in summer.

WHIMBREL.

Numenius phæopus phæopus (L.). A regular bird of double passage met with singly or in small flocks and never very numerous.

WOODCOCK.

Scolopax rusticola L. As a resident increases during a series of mild winters but a hard winter reduces our stock considerably. In winter our breeding birds are reinforced by immigrants and few of them emigrate although they change their habitat and as a result may move some little distance.

GREAT SNIPE.

Capella media (Lath). Specimens of this bird have been secured about ten times and usually in the months of September or October.

COMMON SNIPE.

Capella gallinago gallinago (L.). The numbers of resident Snipe have shrunk very considerably over the last few years although it is still tolerably common and the numbers of the species are greatly augmented by an autumn immigration.

JACK SNIPE.

Lymnocryptes minimus (Brünn). A regular winter visitor whose numbers appear to fluctuate considerably from season to season but, as it is a bird that is seldom seen except in conjunction with a dog and a gun, it is hard to give any true picture of its exact status.

GREY PHALAROPE.

Phalaropus fulicarius (L.). Occurs in the autumn if there are suitable westerly gales during the time of its southward migrations.

RED-NECKED PHALAROPE.

Phalaropus lobatus (L.). Occurs under similar conditions to the Grey Phalarope, but much less frequently.

TURNSTONE.

Arenaria interpres interpres (L.). Wherever there is suitable ground on the coast there are small flocks of wintering Turnstones and more are noticed at the times of passage and a few throughout the summer months.

KNOT.

Calidris canutus canutus (L.). Very few winter in the county. There are fair numbers on passage particularly in the autumn.

DUNLIN.

Calidris alpina schinzii (Brehm). *Calidris alpina alpina* (L.). Nests with us chiefly on the higher hills from about a thousand feet up, though there are a few pairs nesting on low mosses near the sea. These home-bred birds are of course referable to the race *schinzii* and they are joined on the shores in autumn by many more Dunlin from further north belonging to both races, but most of these birds pass on, and only a few winter, though many come through again on the spring passage.

CURLEW SANDPIPER.

Calidris testacea (Pall). Occurs rather rarely and irregularly along with the migrating flocks of Dunlin.

LITTLE STINT.

Calidris minuta (Leisl). Both Stints have been recorded but rarely from the Solway but one must remember that the area is large and these birds are very small. This bird, however, does occur irregularly on migration.

TEMMINCK'S STINT.

Calidris temminckii (Leisl). The only record of this

bird was one which Service saw in a taxidermist's shop in Dumfries about 1875.

PURPLE SANDPIPER.

Calidris maritima maritima (Brünn). Although the localities visited by these birds in winter are restricted it is a regular vsitor to them in small numbers.

SANDERLING.

Crocethia alba (Pall). Considering the amount of suitable ground, the Sanderling is a scarce bird in the county; although it is a regular autumn passage migrant in small numbers and usually a few can be found throughout the winter.

RUFF.

Philomachus pugnax (L.). This bird can be easily overlooked amongst the hordes of Redshank in autumn migration, and is a regular autumn passage migrant though in small numbers.

COMMON SANDPIPER.

Actitis hypoleucos (L.). To the shores of the lochs and the sides of fast flowing burns and rivers a regular and most welcome summer visitor. In the autumn it lingers at the burn mouths and by the sea shore often into the month of October.

GREEN SANDPIPER.

Tringa ochropus L. Occurs on autumn migration irregularly, but in the years when it does occur may be fairly widespread.

REDSHANK.

Tringa totanus britannica Math. *Tringa totanus robusta* (Schiöler). Breeds fairly commonly in all suitable localities and is at all seasons common by the shore but particularly during the autumn migration when both British and Icelandic birds occur and form impressively large flocks.

SPOTTED REDSHANK.

Tringa erythropus (Pall). A fairly regular autumn migant in very small numbers.

GREENSHANK.

Tringa nebularia (Gunn). A conspicuous and increasingly more common autumn migrant on the coast and a few birds spend the winter.

RINGED PLOVER.

Charadrius hiaticula hiaticula L. As a nesting species frequents all the favourable areas of the shore and breeds on shingle banks from the mouth of the rivers up to a dozen miles inland. In the autumn migration our home-bred birds are reinforced by immigrants but during the winter months there are fewer birds than there are in summer.

GOLDEN PLOVER.

Pluvialis apricaria apricaria (L.). *Pluvialis apricaria altifrons* (Brehm). The southern race breeds freely on all our moors and hills and in winter there are often large flocks of Golden Plover on the arable ground but to which race these belong is still doubtful, though certainly during the spring migration large numbers of the northern race pass through on their way to the breeding grounds.

GREY PLOVER.

Squatarola squatarola (L.). A regular winter visitor in small numbers and appears to be somewhat more numerous during the autumn migrations than at other times.

DOTTEREL.

Eudromias morinellus (L.). Breeds very sparingly and possibly not regularly on our higher hills and only very rarely seen elsewhere.

LAPWING.

Vanellus vanellus (L.). As a summer visitor and breeder is becoming increasingly scarce although still our most numerous inland wader. The home-bred birds leave mainly for Ireland in the autumn. Though there are always a few lapwings in coastal areas throughout the winter it is probable that these are not locally bred birds.

BLACK-WINGED STILT.

Himantopus himantopus himantopus (L.). It seems

probable, or at least very possible, that, as Service maintained, the first occurrence of this bird recorded in Great Britain by Sir Robert Sibbald in 1684 was in the Stewartry of Kirkcudbright, and although Gladstone includes it in his *Birds of Dumfriesshire* there is no real evidence as to which county can claim record. However, these rare occasional vagrants are a matter of antiquarian rather than ornithological interest and I shall be quite happy to discard the bird from this list.

OYSTER-CATCHER.

Hæmatopus ostralegus occidentalis Neum. This is the wader of the Solway breeding in spring and summer by the shore, on shingle banks of the rivers, on grassland and cultivated ground and even by burnsides far up amongst the hills, but it is in the winter on the mudflats and on the mussel beds that its numbers become most impressive, and in October when the home-bred birds and the winter visitors are both on the Solway, there must be assembled tens if not hundreds of thousands of individuals.

COMMON CRANE.

Grus grus grus (L.). The Duchess of Bedford records having seen an immature and apparently genuine wild bird on the moor at Cairnsmore on the 15th of June, 1920. (*Scot. Nat.*, 1920, p. 168.)

BLACK TERN.

Chlidonias niger niger (L.). A scarce and casual visitor has only been recorded some half dozen times in the summer or autumn months.

SANDWICH TERN.

Sterna sandvicensis sandvicensis Lath. There are only two very small nesting colonies in the county, one of which is not annually inhabited. After the breeding season is more widespread and possibly there is some passage migration at that season.

ROSEATE TERN.

Sterna dougallii dougallii Mont. An occasional bird

has been identified amongst flocks of terns that congregate after the breeding season and, with its recent spread, careful watch should be kept for the breeding of this rarest of British terns in our area.

COMMON TERN.

Sterna hirundo hirundo L. This is the most abundant of the terns nesting with us and there are several strong colonies on the coast.

ARCTIC TERN.

Sterna macrura Naumann. Very few nest with the Common Terns and there seems to have been a diminution of their numbers in recent years.

LITTLE TERN.

Sterna albifrons albifrons Pall. We have only two colonies of this tern in the county and they vary much in numbers from year to year, sometimes being no more than half a dozen pairs altogether and occasionally rising to 40 or 50 pairs.

LITTLE GULL.

Larus minutus Pall. There are very few good records of this small gull and, curiously enough, none of recent date although elsewhere in the country its visits appear to have been getting more regular.

BLACK-HEADED GULL.

Larus ridibundus ridibundus L. This is the most abundant gull in the area and large numbers breed in colonies from sea level right up to some of the most inaccessible and highest lochs in the county. In winter the gulls move daily inland to feed and out to the firth at night to roost either on some sandbank or on the water.

COMMON GULL.

Larus canus canus L. This gull is always with us but is most numerous at the periods of the spring and autumn migration. There are at least half a dozen colonies of nesting birds in the county both by the sea and on inland waters.

HERRING GULL.

Larus argentatus argentatus Pont. This is the most abundant of the larger gulls but is more or less confined to coastal areas where there are several large breeding colonies.

LESSER BLACK-BACKED GULL.

Larus fuscus graellsii Brehm. Though one sees an occasional bird throughout the winter the great bulk of the Lesser Black-backs are absent from November until February. Although nowhere as numerous as the Herring Gull there are several large colonies on the cliffs and some birds breed inland often just a single pair at a hill loch.

GREAT BLACK-BACKED GULL.

Larus marinus L. A greatly increased resident seen by the shore all the year round and breeding at a good many places on the coast and also on certain mosses inland. In the winter is seen commonly inland where isolated birds or pairs make their headquarters and roosting places on some of the remote hill lochs.

GLAUCOUS GULL.

Larus hyperboreus Gunn. Has occurred rarely in the winter months.

ICELAND GULL.

Larus glaucoides Meyer. This is also a scarce winter visitor. Both this bird and the Glaucous are more numerous on the eastern than on the western mainland of Scotland.

KITTIWAKE.

Rissa tridactyla tridactyla (L.). There are usually a few Kittiwakes in the western part of the firth and there is one not very large breeding colony.

[IVORY GULL.

Pagophila eburnea (Phipps). Armistead reported seeing one on 3rd and 4th August, 1898 (*Zool.*, 1898, p. 414) but this was probably an albino Black-headed Gull. There are no other records for the county though at least two have been secured on the Glencaple merse, Dumfriesshire, which had most probably flown across the county boundary at some

time, although not having been seen to do so, they can hardly be legitimately claimed as Stewartry records.]

POMATORHINE SKUA.

Stercorarius pomarinus (Temm). Odd examples have been secured during the autumn migration on the coast chiefly near the mouth of the Nith.

ARCTIC SKUA.

Stercorarius parasiticus (L.). Is the most frequent of the Skuas at autumn migration and occurs almost annually in September or October.

LONG-TAILED SKUA.

Stercorarius longicaudus Vieill. An irregular and always rare passage migrant in the autumn. In the year 1891, which was a great Skua year, several specimens were secured and at other times some half dozen have been got, making in all 10 or 12 occurrences.

RAZORBILL.

Alca torda britannica Ticehurst. There is an old-established colony at the Ross and in 1947 a fresh colony of a dozen pairs was formed on the Colvend cliffs. In winter there are always a few Razorbills in the deeper waters off our shore.

GUILLEMOT.

Uria aalge albionis With. A resident with a couple of breeding colonies of no great size on our coast, and, in winter, frequenting the lower reaches of the firth.

BLACK GUILLEMOT.

Uria grylle grylle (L.). Seen in summer regularly and it is probable that a very few pairs now breed; but the bird seems to desert us entirely in winter.

LITTLE AUK.

Alle alle alle (L.). Occurs in winter sporadically, usually as a storm driven waif.

PUFFIN.

Fratercula arctica grabæ (Brehm). Is with us all the

year round, usually well out in the firth, though there is no breeding colony in the county.

CORNCRAKE.

Crex crex (L.). A summer visitor and also a bird of passage though in greatly reduced numbers in both capacities. However, there is still a fair sprinkling of these birds breeding in the more remote valleys and this may be because in these remoter areas the hay crop is cut much later than in the more favoured parts and thereby the nests of the Corncrake escape destruction.

SPOTTED CRAKE.

Porzana porzana (L.). Towards the end of the last century and in the beginning of this the Spotted Crake was often shot and, doubtless, bred locally in those days, but I know of no recent occurrences though it is possible that a pair or two still breed.

WATER RAIL.

Rallus aquaticus aquaticus L. Although more often seen in winter the bird is probably as common in the summer though hidden by the ranker growth of that season. It is not really a scarce bird but one that is easily overlooked on account of its retiring habits.

MOORHEN.

Gallinula chloropus chloropus (L.). An abundant resident wherever there is stagnant or slow running water with cover near it into which the birds may retire.

COOT.

Fulica atra atra L. A common resident on all the larger lochs where there are suitable reed beds for it to nest in.

CAPERCAILLIE.

Tetrao urogallus urogallus L. A couple of hens were shot in 1869 having doubtless wandered from the unsuccessful introduction in Ayrshire about that date.

BLACK GROUSE.

Lyrurus tetrix britannicus With. and Lönn. This most

lovely of all British game birds used to be a familiar object on the ground abutting the edge of cultivation but some calamity overtook it and although in recent years there has been a slight increase in its numbers it is extinct over large areas of the county where it was formerly numerous and even in those places where it still occurs its hold is lamentably weak.

RED GROUSE.

Lagopus scoticus scoticus (Lath). Wherever there is heather from sea level to the tops of our highest hills grouse are found and although they, too, have fallen off sadly in numbers they cannot yet be considered a scarce bird.

PTARMIGAN.

Lagopus mutus millaisi Hart. It is over a century now —1827 or 1828—since the Ptarmigan became extinct and lost its claim to a place amongst the birds of Kirkcudbright on any but historical grounds.

PHEASANT.

Phasianus colchicus L. An introduced species that has established itself well and, where it receives encouragement, maintains its numbers particularly in the rough and broken ground which is so frequent in our area.

PARTRIDGE.

Perdix perdix perdix (L.). Wherever there is cultivated ground there is a covey or two to be found and it seems to be very successful in rearing a large covey in those areas where the cultivation is patchy rather than in the areas where cropping is almost continuous.

QUAIL.

Coturnix coturnix coturnix (L.). Appears sporadically in the summer and breeds. It is rather extraordinary how occasionally there may be a fair sprinkling of Quails for a season and then they disappear and none may be seen or heard for years.

ADDITIONS AND CORRECTIONS.

JAY.

Since writing the first part of this paper I have had the opportunity of examining critically a fair series of Jays from western Europe and am presently of the opinion that our local birds and those from Scotland and the north of England are not separable from the typical (continental) birds and should therefore be referred to *Garrulus glandarius glandarius* (L.) and not to *Garrulus glandarius rufitergum* Hart. But in the meantime it might be better simply to use the binomial

CROSSBILL.

Loxia curvirostra scotica Hart. This race should be added to the list as it has been described by Witherby (*British Birds*, Vol. 4, p. 334) as having occurred in Kirkcudbright "sporadically in winter in very small numbers."

STONECHAT.

Further examination of Stonechats from the Solway area shows that the birds are referable to the so-called Hebridean race and therefore the name *Saxicola torquata hibernans* (Hart) must be replaced by *Saxicola torquata theresæ* Meinertz.

13th DECEMBER, 1946.

Chairman—The PRESIDENT.

The Proudfoots of Annandale.

By Major W. H. PREVOST.

As the author is arranging for the publication of this paper in extended form elsewhere, it is not included in these *Transactions*.

Further Notes on Old Roadways in Dumfriesshire.

By JAMES ROBERTSON.

This interim report by the County Road Surveyor is to be enlarged later after he has made further investigations.

Butterflies and Moths of the Solway Area.

ADDITIONS AND NOTES ON SOME OTHER SPECIES.

By David Cunningham, M.A.

To the first number of the Society's *Transactions* (1862-63) Wm. Lennon contributed an extensive list of butterflies and moths taken by him in the immediate neighbourhood of Dumfries. A much longer list of Lepidoptera taken in Wigtownshire by R. S. and J. G. Gordon and other collectors was published by the Society in two parts, the first in the *Transactions* for 1912-13, the second in the *Transactions* for 1918-19. The present short list should be read in conjunction with these: it contains certain insects which have not been previously mentioned, or which have become markedly commoner or scarcer since they were first listed, or which, in view of their rarity or their immigrant status, are considered worthy of mention.

My indebtedness to Mr F. W. Smith, Boreland of Southwick, is great. He has placed freely at my disposal the fruits of his long study of the British, and especially the Scottish, Lepidoptera. To him, to Mr Arthur B. Duncan, to Mr O. J. Pullen, to Mr Malcolm T. Laurence, and to Mr Robert Waugh I express my thanks for the use of their records.

The nomenclature is, for the scientific names, that of Kloet and Hincks (1945), and for the English names, that of Richard South.

BUTTERFLIES.

1. Aphantopus hyperantus Linn. The Ringlet.

Var. arete is not uncommon in the Gilchristland-Loch Ettrick area, 24/7/46.

2. Argynnis euphrosyne Linn. The Pearl-bordered Fritillary.

This very local species is abundant in Mabie Wood. Two fine varieties taken, one a banded male, and the other a female with obsolescence of the red markings on the underside of the hind wings, 31/5/47.

3. Euphydryas aurinia Rott. The Marsh Fritillary.

Still to be found on the Lochar Moss (Mr Arthur B. Duncan).

4. Vanessa cardui Linn. The Painted Lady.

The numbers of this immigrant butterfly fluctuate greatly from year to year. Only three observed in 1946, but hundreds in August and September of 1947.

5. Nymphalis io Linn. The Peacock.

When Lennon made his list this species was still not uncommon. But when the Gordon brothers were collecting, it had become exceedingly rare in Scotland. Dr. E. B. Ford ("Butterflies," p. 139) states that it began to return to north Cumberland in 1935 and 1936. I first saw it on the wing at Arrochar in 1941 and its larvæ at Loch Lomond in the same year. It is now common in the south of Scotland and has spread north to Caithness.

6. Aricia agestis Schiff. **(Var. artaxerxes.)** The Scotch Brown Argus.

Rare on the Colvend coast. One male and one female taken, and two others seen, 30/6/46. One female of the form *quadripunctaria*, 2/8/47.

7. Thecla quercus Linn. The Purple Hairstreak.

One taken by Mr Arthur B. Duncan, Gilchristland, 1943.

8. Euchlöe cardamines Linn. The Orange Tip.

I have never seen a Scottish specimen of this insect, which is stated in the textbooks to be common throughout the country. Lennon found it common on the edges of woods and in bogs in the Dumfries district, and Gordon states that several were taken near Stranraer in 1882. The only recent record for Dumfriesshire is that of Mr Arthur B. Duncan, who took several at Tynron in June, 1943.

9. Colias croceus Fourcroy. The Clouded Yellow.

This irregular immigrant to the Solway coast occurred in gratifying numbers in 1947. The long dry summer provided excellent conditions for the larvæ of insects arriving in June, and in addition powerful reinforcements came over

from the Continent in August. 1947 seems to have been second only to " the great *edusa* year " of 1877, when this butterfly (then known as *C. edusa*) was abundant, and occurred as far north as the Shetlands. 3 Port Ling 14/8/47, 8 Powfoot 15/8/47, 3 Powfoot 16/8/47, 12 New Abbey to Port Ling 18/8/47, 20 Port Ling 20/8/47 (with Mr Malcolm T. Laurence), 1 Boreland of Southwick 26/8/47, 8 Southerness and Sandyhills 13/9/47. Males outnumbered females by two or three to one. Persistent search failed to provide a single specimen of *var. helice*. *C. croceus* is never really common in Britain except in the south of England: in the Solway area in 1947 it could be described as not uncommon. The highest point at which I saw it was the foot of the Mennock Pass, one, 24/8/47.

MOTHS.

1. Acherontia atropos Linn. The Death's-Head Hawk.

One, Sandyhills, 1943 (Mr F. W. Smith); one, Closeburn, September, 1945 (Mr O. J. Pullen). Three others were sent to Mr Pullen in 1945, and in October, 1947, he received two pupæ, one an empty case and the other injured.

2. Herse convolvuli Linn. The Convolvulus Hawk.

Widely distributed, September, 1944 (Mr O. J. Pullen).

3. Celerio livornica Esp. The Striped Hawk.

A fine female of this species, which is a very rare immigrant to Scotland, was netted by Mr F. W. Smith at rhododendron blossom at dusk, 10/6/47, Southwick. The only other record for the Solway area is J. G. Gordon's, 18/6/06, Corsemalzie, Wigtownshire.

4. Macroglossum stellatarum Linn. The Hummingbird Hawk.

A regular immigrant in small numbers. Closeburn 1945 (Mr O. J. Pullen), a dark variety Mabie Wood 25/5/47, and three Southwick 10/6/47 (Mr F. W. Smith), Rockcliffe, June, 1945, Isle of Whithorn, August, 1946.

5. Drymonia dodonæa Schiff. The Marbled Brown.

One at light, Mabie Wood 31/5/47. This seems to be the first record for Kirkcudbright, and the insect does not

appear to be recorded for Dumfriesshire as yet. Three recorded by Gordon for Wigtownshire, 1905 and 1911.

6. Pterostoma palpina Cl. The Pale Prominent.

Very rare. One at light, Mabie Wood, 31/5/47 (Mr F. W. Smith). Already recorded for Dumfriesshire (Lennon), Kirkcudbright (A. G. B. Russell, " Entomologist," 77 : 70-2), and Wigtownshire (R. S. Gordon).

7. Euproctis chryssorhœa Linn. **(similis** Fuess.) The Yellow Tail.

A very rare moth in Scotland. The following are possibly the only records: Rockcliffe, Kirkcudbright, 1870 (Buchanan-White); Aberdeen, 1872 (Traill); South Ayrshire, 1900 (Duncan); Southwick and Mainsriddle, June and July, 1946 (Mr F. W. Smith); and Isle of Whithorn, Wigtownshire, August, 1947. This last occasion is the only one on which it has been seen in Scotland in greater numbers than ones or twos. I saw it flying freely at dusk, and found it at rest not uncommonly during the day in a very restricted locality. It occurs rarely in Cumberland, in the Isle of Man, and in Northern Ireland, but is common in England from Lancashire southwards. It has still to be recorded for Dumfriesshire.

8. Drepana falcataria Linn. The Pebble Hooktip.

Closeburn 1941 (Mr F. W. Smith), Mabie Wood 11/6/47, Kirkconnell Flow 21/6/47 (Mr Malcolm T. Laurence). Probably less uncommon than these records would suggest.

9. Drepana lacertinaria Linn. The Scalloped Hooktip.

Gilchristland before 1940 (Mr Arthur B. Duncan), Closeburn 1941 (Mr F. W. Smith), Kirkconnel Flow 26/6/47 (Mr Malcolm T. Laurence), Dumfries 27/6/47.

10. Cilix glaucata Scop. The Chinese Character.

Closeburn 1943 (Mr F. W. Smith), Mabie Wood 20/6/47. Is this insect really extinct in Wigtownshire, as R. S. Gordon suggested?

11. Spilosoma lubricipeda Linn. The White Ermine.

Mr F. W. Smith had the good fortune to take the ex-

ceedingly rare heavily rayed *var. godartii,* Southwick 9/7/47.

12. Hippocrita jacobaeae Linn. The Cinnabar.
Not uncommon at Southerness, 1945-46-47.

13. Cryphia perla Schiff. The Marbled Beauty.
Dumfries, at light, 29/6/46, 29/7/46. Is this so rare in Wigtownshire as Gordon's one record suggests?.

14. Melanchra persicariæ Linn. The Dot.
Of this species Barrett (Vol. iv., p. 216) says: "In Scotland it is recorded, though with doubt, by Dr. F. B. White, in the districts of the Solway, Tweed and Clyde." South (Series I., p. 240) says: "Its occurrence in Scotland seems to be doubtful." R. S. Gordon, however, recorded one taken in Wigtownshire in 1903, and I bred a male from a larva taken by my wife at Closeburn in September, 1946.

15. Episema cæruleocephala Linn. The Figure of Eight.
One at light, Dumfries, 13/10/46.

16. Celæna haworthii Curt. Haworth's Minor.
Mr F. W. Smith, Mr Arthur B. Duncan and I have all taken this on the Lochar Moss. Not uncommon.

17. Orthosia cruda Schiff. The Small Quaker.
Closeburn 1941 (Mr F. W. Smith), Southwick 17/4/47.

18. Rivula sericealis Scop. The Straw Dot.
Southwick 11/7/46 and 7/47 (Mr F. W. Smith).

19. Geometra papilionaria Linn. The Large Emerald.
Said to be very rare by Lennon. Taken by Mr F. W. Smith at Closeburn 1943, at Moniaive 1939, and at Southwick 1946, and by Mr Malcolm T. Laurence at Dumfries 1946.

20. Carsia sororiata Hubn. The Manchester Treble-Bar.
Taken by Mr Arthur B. Duncan at the Black Loch and on the Lochar Moss. Locally common.

21. Chesias legatella Schiff. The Streak.
Said to be very rare by Lennon. Now not uncommon, Dumfries. Four 14/10/46, one 30/8/47. Well-distributed.

22. Chesias rufata Fab. The Broom-tip.

Dumfries 20/7/46, Comlongon 17/5/47. Not mentioned by Lennon. Well-distributed.

23. Lygris prunata Linn. The Phœnix.

Southwick 11/7/46 (Mr F. W. Smith).

24. Hydriomena ruberata Freyer. The Ruddy Highflyer.

One, Comlongon 16/5/47 (Mr F. W. Smith).

25. Abraxas sylvata Scop. The Clouded Magpie.

Tynron, June, 1943 (Mr Arthur B. Duncan). Possibly its northern limit.

26. Plagodis dolabraria Linn. The Scorched Wing.

Gilchristland (Mr Arthur B. Duncan).

27. Selenia bilunaria Schiff. The Early Thorn. **Var. juliaria** Haworth.

Two, Closeburn, 8/40 (Mr F. W. Smith); one, Dumfries, 28/7/47 (Mr Malcolm T. Laurence). This variety is said to be rare in Scotland.

28. Selenia lunaria Schiff. The Lunar Thorn.

One, Mabie Wood, 31/5/47.

29. Chiasma clathrata Linn. The Latticed Heath.

One male freshly emerged at light, Dumfries, 3/10/47. This insect is partially second-brooded in July and August. This record raises the question of the possibility of a third brood in exceptionally fine years.

30. Cleora cinctaria Schiff. The Ringed Carpet.

Lochar Moss, 4/5/46 (with Mr R. Waugh). This moth had not previously been noticed in Dumfriesshire. Mr F. W. Smith and I took some freshly emerged specimens in the same locality, 16/5/47.

31. Aegeria formicæformis Esp. The Red-tipped Clearwing.

Closeburn, 1942 (Mr F. W. Smith and Mr Arthur B. Duncan). Very local and uncommon throughout the British Isles.

32. Hepialus humuli Linn. **Var. thulensis** Newman. The Ghost Swift.

One on the banks of the Nith, Dumfries, 3/7/46. The occurrence of the Shetland race of this moth on the mainland and so far south is very surprising.

33. Hepialus hectus Linn. The Gold Swift.

Three males taken at dusk as they hovered in pendulous flight over bracken near Mabie Wood, 20/6/47.

10th JANUARY, 1947.

Chairman—The PRESIDENT.

The Life History of Local Grasshoppers.

By ARTHUR DUNCAN.

It is to be regretted that, owing to the author's absence in New Zealand, it has not been possible to include this item in this voloume.

Research Work on Peat from 1909.

By ANDRES TOMTER.

This address was a review of research work in several countries, with special reference to the Lochar Moss. With episcope and diagrams he showed various machines in use and processes of different type.

24th JANUARY, 1947.

Chairman—The PRESIDENT.

Some Aspects of the Physical Geography of the Sanquhar Drainage Basin.

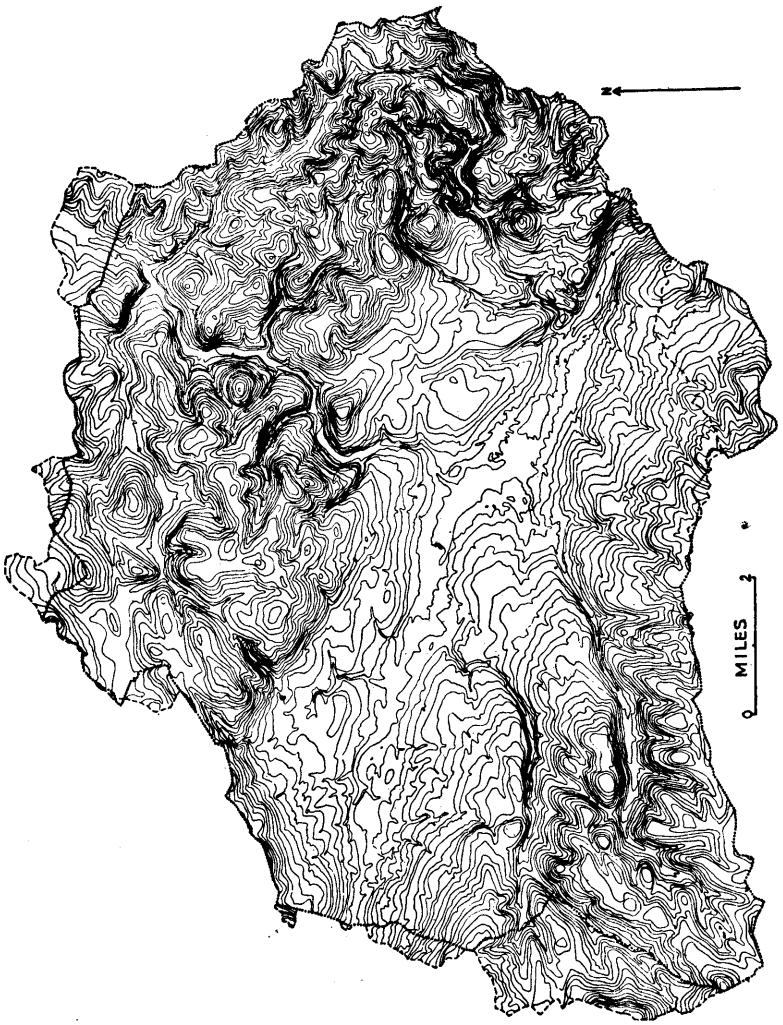
By J. A. McIVER, B.Sc.(Econ.), F.R.G.S.

In this article we are concerned with the two parishes of Sanquhar and Kirkconnel, whose outer boundaries, shown on the accompanying contour map as a dotted line, coincide with the watershed of the Sanquhar Drainage Basin except where the watershed is separately shown as a broken line.

It is at once obvious from this map that the relief of the basin renders it easily divisible into three physical regions: the hill country to the north and west; the relatively lower area which might be called "The Coal Basin"; and the hill country to the south.

Apart from the Spango granitic area, and the vent agglomerates of the Bail Hill, the hill country to the north and west is composed of[1] Ordovician rocks, all striking in a north-east to south-west direction, their lowest representatives, the Arenig rocks, being exposed only in the most deeply eroded anticlinal belts as, for example, on the south-western shoulder of Bail Hill, where, at an altitude of 1050 feet, rocks of this series can be seen in small abandoned quarries at the side of the old "Muirkirk Road." These early Palæozoic rocks, which include the Glenkiln and Hartfell shales, consist of greywackes, shales, grits, massive conglomerates, cherts, mudstones, and even limestones, and they are so intensely folded that examples of isoclinally folded rocks can be observed in several localities, and especially in the bed of Mennock Water. The great pressure involved in this folding has rendered most of these rocks almost uniformly resistant to erosion, but nevertheless tremendous erosion has taken place. Indeed, it is the highly

1 J. Pringle: "British Regional Geology — the South of Scotland." H.M.S.O. 1935.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MILES

dissected nature of the countryside which stands out so markedly on our contour map, and which we must now consider.

If one views the district from the summit of Knockenhair or Stood Hills, or from the air,[2] one finds it easy to be convinced of the generally accepted theory that all these remnant hills and deeply entrenched valleys have been carved out of a previously existing high level peneplain occupying most of the Southern Uplands region. From such viewpoints it is the remarkable concordance of summit levels which strikes the observer, and as seen from a distance of ten to fifteen miles, from Little Dodd Hill on the water-parting at the head of Euchan valley on the opposite side of the basin, these hills could fairly be described as an undulating plateau. The valleys, even the gorge-like valleys of Mennock, Glendyne, and Crawick, appear like minor and purely local features incised into the general level of a gently undulating spread of rounded, grass-covered hills. Within the Sanquhar Drainage Basin the largest remnant of this peneplain is found in the great plateau-like region of Todholes, Bail, Cocker and Glenguffock Hills, together with the neighbouring Meikle Knypes, Crow Knowes and Polholm Rig. This remnant mass stands out clearly on the contour map and is best seen from the summit of the Muirkirk Road which crosses it and has its highest point on Guffock Hill, which also forms part of the plateau.

Regional uplift resulted in the rejuvenation of the Nith and its tributaries and has been repeated at several periods of time so that deep dissection of the old peneplain has produced the hilly landscape so well portrayed on the contour map. It is not difficult to pick out the bolder features which owe their existence to river erosion, though they may have been glacially modified. The gorge-like rejuvenated valleys form the main feature of the map: Mennock and its Glenimshaw, Glenclach, Beer, Glendauchan and Glendyne tributary valleys; and Crawick and its Kiln, Spothfore and Cog

2 L. Dudley Stamp: "Britain's Structure and Scenery," plate XXII. Collins. 1946.

tributary valleys. A second feature is to be found in the hill masses which have been so spectacularly isolated as a result of circumdenudation, such as Knockenhair, Cruerach, Knockenshag and Kirklea Hills. Auchensow and Brown Hills are likewise becoming isolated from their neighbouring hill masses, and away in the north the little Friarminnan Hill provides a beautiful example of circumdenudation. A third feature which stands out is the flat floor of Crawick valley and of parts of Mennock valley. These are due, and especially in the case of Crawick, to the deepening which resulted from glacial meltwaters at the end of the ice age, followed by the deposition of a tremendous load of fluvio-glacial sands, gravels and boulders giving a flat floor in the rejuvenated valleys. Crawick valley from Spango Bridge to Orchard Farm, Mennock valley from the Glenclach confluence to Howat's Burnfoot, and Wanlock valley from the lower end of Wanlockhead village to Duntercleuch are all well worth a visit to see the extent of this deposition. The succession of river terraces, cut in these deposits by the rivers during later periods of rejuvenation, form an attractive feature of the valleys which cannot be shown on the map. Their usefulness to man for his arable land, communications and settlements can scarcely be missed on the ground. There are two other features whose cause is not self-evident on the contour map. One is the magnificent glacial overflow channel which caused the final separation of Knockenshag from Mount Stuart, and there can scarcely be a finer example of such a feature in Great Britain. The other is the development of " benches " along the valley sides of nearly every stream in the region. In the main valleys these indicate an old valley floor at well above present river level, and if the benches are traced backwards up the tributary valleys to the " nick points " this last major stage in river rejuvenation is seen to have progressed almost to the sources of the streams. The most instructive stream to examine on the ground is certainly the Crawick-Spango-Glengap Burn system. In the valley of the Wanlock Water even the alluvial terraces can be traced separately to their respective nick points.

One cannot fail to notice on the map, as on the ground, the precipitous southern slope of Spango Hill. Redscar Heugh forms the chief feature of this hill face and is accounted for by undercutting by the meandering Spango Water, which has been the cause of the whole precipitous slope. The basin of Fingland Lane, which we may call the Friarminnan Basin, forms an outstanding and unique feature within the whole basin. It has a flat peat floor and might conceivably have been a lake basin during times of glacial interruption of the normal drainage system. At the head of Wanlock Water the great development of gully erosion on the valley sides is especially evident both on the map and on the ground. Lastly we notice that there is a real contrast between Crawick and Mennock valleys in that the latter merely leads up to a high level col (Mennock Hass, 1409 feet) which takes the road over into the head of the Wanlock Basin, whereas Crawick leads up to a beautiful through-trough, which it could never have excavated but which provides an easy route through the waterparting and so to the valley of Duneaton Water and the Clyde Basin. To this feature we shall return presently.

This hill country to the north and west ends abruptly along its southern edge in a succession of fault-line scarps. In the centre of the Drainage Basin four major lines of faulting have let down the Sanquhar Coal Basin along its northern and north-eastern sides, and the escarpments which are left dominating the lower area are quite impressive. We may name these bold features as follows :

1—The Corsencon-Halfmerk Scarp.
2—The Kirkland-Todholes-Bail Scarp.
3—The Conrig-Brown Scarp.
4—The Auchensow-Dalpeddar Scarp.

The contour map shows all these very clearly, and the clear-cut delimitation of the Coal Basin by the first two fault-line scarps is especially striking. It will be noticed that the third scarp lies some two miles further to the north-east than the second, although they are parallel to one another. This results in a kind of " stepping back " of the Coal Basin

within the upland area, until the last fault brings the upland edge forward once more and into alignment with the Kirkland-Todholes-Bail Scarp. The first scarp is unbroken. The second and third are each broken by one great gash cutting back through them. These enormous gullies could scarcely have been eroded out by the small streams which now occupy them (Glenaylmer and Glendyne Burns), and they are no doubt channels cut by glacial melt-waters during the melting of the local ice caps on Spango Hill and the Lead-hills. In the case of Glenaylmer a great deltaic terrace of alluvial material situated where it debouches on to the low-land suggests that here, at least, its discharge of such waters was held up by a still existing Nith glacier in the centre of the basin.

Geologically the hill country of the south consists of the same resistant Ordovician rocks described in our first region, though here there is no great development of intrusive rocks. Folding has been just as intense, and the rock bed of Euchan Water provides evidence of isoclinal folding just as clearly as does that of Mennock. Indeed, the denuded anticlinal exposures of the underlying Arenig rocks are even better seen in one locality in these southern hills, i.e., along the western half of the watershed which forms the southern boundary of the Drainage Basin and, continuing along the strike, down the face of the hill as far as Mains Plantation. But in spite of this geological similarity, and although part of the same Southern Upland region, this southern hill country is, in so far as it lies within the Sanquhar Drainage Basin, rather different in its relief from the area we have been describing. There is here no development of major faults to produce sudden scarp edges, and instead it slopes evenly down to the edge of the Coal Basin. Its eastern half consists of the smooth and more or less evenly graded slopes of Corridow, Peat, Wether, Jarney and Black Rig Hills, as they descend from their crests on the boundary to the Nith valley. Its western half is much more dissected and the middle and upper courses of the Euchan and Kello Waters are indeed rejuvenated gorge-like valleys, with Benzien Craig

and Swallow Craig forming dominant features. On the south side of each of these streams we have the same tremendous activity of gully erosion which we noticed in the upper Wanlock valley. The only remnants here found of the high level peneplain are in the plateau-like surfaces along the watershed between the upper Kello and the upper Euchan, and along the watershed which forms the southern boundary of the basin.

The Coal Basin is a tectonic basin the relief features of which are, to a large extent, due to structural controls. The basin has been let down uniclinally by the four main faults along its northern and north-eastern sides as already described. Its tilted floor consists of the same highly folded Ordovician rocks which form the two upland areas of the basin, and this floor dips generally in a northerly or north-easterly direction and is covered by the younger rocks which have been preserved, or partly preserved, from erosion by this local subsidence, and which are naturally thickest in the north where the subsidence has been greatest.[3] A geological map therefore shows occasional outcrops of about twenty feet of Upper Millstone Grits resting on the Ordovician rocks along the southern margin of the Basin, and these thin sediments are successively overlain by other deposits as one moves north across the Basin until, in the neighbourhood of the Vennel, there are some 1650 feet of strata overlying the downfaulted Ordovician floor, including about 50 feet of Millstone Grits, rather less than 800 feet of Productive Coal Measures, and rather more than 800 feet of Barren Red Coal Measures. These are the rocks out of which the relief of the Coal Basin has been carved—the outcrops of rocks of Carboniferous Limestone age, the five Permian volcanic vents, and the Permian and Tertiary sills and dykes are minor occurrences and scarcely affect the physical landscape. What, then, are the main features of the relief of the Coal Basin?

[3] Simpson, Richey, MacGregor and Pringle: "The Geology of the Sanquhar Coalfield and Adjacent Basin of Thornhill." A Memoir of the Geological Survey. H.M.S.O. 1936.

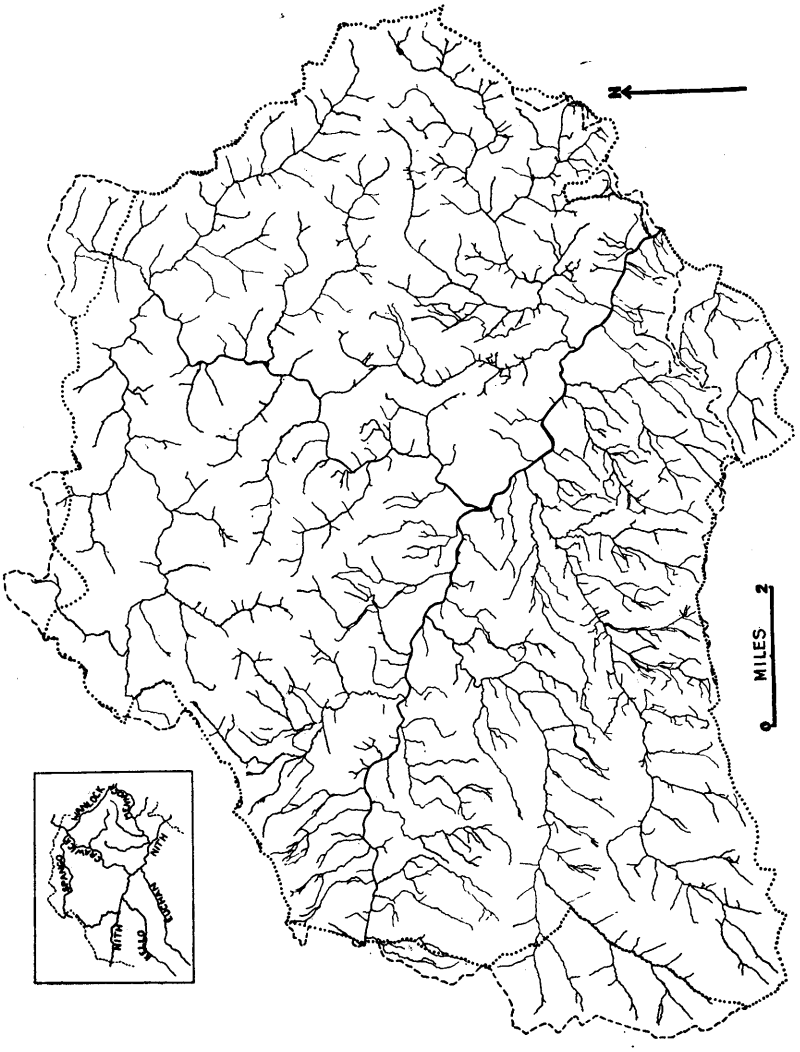
The first is best seen from the floor of the Nith Pass which leads through into Ayrshire between Corsencon Hill and M'Crierick's Cairn. Standing on the main road anywhere between the March Burn and Upper Cairn one can pick out very clearly the general dip on the south side of the Basin which represents the tilted Ordovician floor passing imperceptibly beneath the similarly northward dipping Productive Coal Measures. The second is best seen from the same viewpoint, and consists of the so-called " Intermediate Platform " of erosion. Here we have an old plain on which the Nith and its tributaries used to meander. Indeed the Nith still meanders on this plain in the floor of the pass just referred to, but once the river enters Dumfriesshire it assumes the character of a rejuvenated stream which has incised itself deeply into this old plain. The level of the plain in the Nith Pass is continuous, within the basin, with the marked platform which is developed upon Barren Red Coal Measures in the north of the basin in the neighbourhood of the Glenmucklocks, the Vennel and Kirkland, and upon the Productive Coal Measures of the north-east embayment of the basin. It is in this embayment, caused by the stepping back of the main line of faulting, that the " Intermediate Platform " is best developed. Here it is some two and a half miles wide, and as one looks across it from Auchensow Hill, one observes that it has provided a large flat area farmed by Auchentaggart, Auchengruith, Muirhead, Clenries, Knockenhair and other farms. It has been utilised for several large plantations and is locally described by the names Sanquhar Moor, Auchengruith Moor, and Auchentaggart Moor. This ancient plain has an abrupt edge throughout most of its length overlooking the rejuvenated Nith, and this " edge " is best developed where it runs parallel to the main road and railway for a few miles north-west and south-east of the Crawick Valley. This platform is dissected by the rejuvenated gorges of Crawick, Loch Burn, Glendyne Burn and Mennock Water. The Glenairlie-Drumlanrig gorge of the Nith is cut in this same intermediate platform, and that spectacular rejuvenation

gorge is well seen when one looks across it from Crairiehill Farm to Coshogle Farm, which are both situated on the same platform at the northern end of the Thornhill Basin.

Lastly we must look at the work of the Nith and its minor feeders within the Coal Basin. These latter have carved out the striking cleuchs on the northern side of the upper basin and on the southern side of the lower basin, which are good examples of gully or torrent erosion. (The most spectacular and most recently developed gully is found on the hillside overlooking the confluence of Cog Burn and Crawick.) The Nith is still actively incising itself into this upraised landscape of Southern Scotland, and it is far from being mature as it tumbles down throughout the length of the Coal Basin with its marked gorges at the upper and lower ends. Only in the middle of the basin is its gradient checked, and there, at Nith Bridge, one can see a beautiful development of five alluvial terraces within the wide flood plain of the river.

Now let us turn to a study of the drainage of the whole Basin. We have already discussed the work of rejuvenation and the dissection of the Intermediate Platform, and of the earlier high level peneplain. We have also referred to the profile of the Nith whose course, between the county boundary and Kirkconnel, can almost be described as incised, although above the county boundary the river is a mature remnant of its forerunner which meandered on the intermediate platform in its former course across the Basin.

The accompanying map shows that there is a curiously greater development of tributaries on the south banks of Euchan and Kello Waters than on their north banks, and neither the geological nor the relief map offers any simple explanation of this phenomenon. South of the Nith there is everywhere a greater stream density than is found in the north, and the many parallel streams flowing more or less north or north-eastwards indicate the natural development of drainage on the dipping slope of the Carboniferous rocks. This is especially true of the shorter streams, but it is also true of the larger ones the bulk of whose course lies south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or south-west of the Carboniferous covering, and these latter might conceivably have been partially superimposed upon the Ordovician rocks as the Carboniferous strata of their middle courses were eroded away.

On the north side of the Nith, south of the fault-line scarp, one might expect that the Barren Red Coal Measures in the north and north-west of the Basin, being sandstone, would give rise to a less dense stream pattern, but this is certainly not found to be the case

The north-eastern half of the area has far fewer and much bigger streams than the south-western half, and there is nothing to compare with the Crawick system on the other side of Nith. Crawick and Mennock have long tributaries, such as are not found in the Euchan and Kello basins. On the whole we may say that the rivers south of the Nith represent torrent gullies, while north of the Nith Crawick and Mennock are clearly rejuvenated gorges cut right through the intermediate platform and deeply dissecting the remnant hills of the high level peneplain in their upper basins. This contrast can be clearly seen by comparing the profiles in our diagram.

We may suggest that the Nith is not now centrally placed in the downfaulted basin, and just as the basin has been let down along its north-eastern edge, so it would appear that there has been a uniclinal shifting of the main stream. This may possibly account for the absence of any remnant parts of the intermediate platform to the south of the river, and for the bold, cliff-like edge of the platform which overlooks the Nith Valley, from many parts of its north-eastern side. It may also account partly for the smooth dipping surface on the south side of the river to which we referred in describing the relief features, and on which we have just described the development of parallel tributaries. It is, in effect, a " slip-off slope."

Some preliminary conclusions resulting from a detailed survey of benches and alluvial terraces in all the valleys of the basin have already been referred to, and others will be used in discussing the physical history of the upper Crawick

waters, but it may be useful to refer to certain other points here. Neither Mennock nor any of its tributaries shows the slightest signs of maturity. Mennock itself shows several rejuvenation steps in its course, the most recent being in its final plunge towards Nith from just above the confluence of Loch Burn. The most marked nick point occurs at 1250 feet above sea level, but there are less marked ones at 1050 feet, 900 feet, 850 feet, and 650 feet. Loch Burn and Glendyne Burn exhibit major rejuvenation steps both in their lower and upper courses, and Loch Burn at least shows a similar step in its middle course.

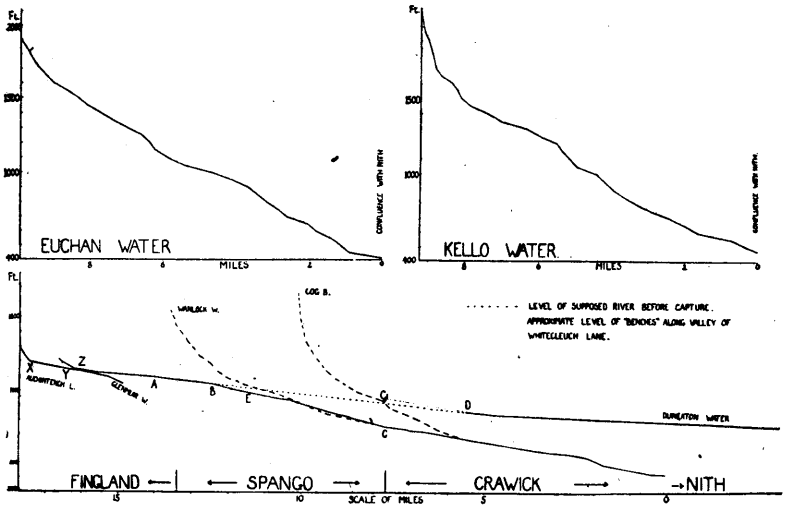
Nearly every farm within the two parishes has, at some time, interfered with the local natural drainage of the district by constructing mill leads and mill dams, which explains some rather unusual stream patterns on the map. The river map also shows the only two lakes of the district, Polvaird and Moor Lochs, which are probably kettle-hole lakes occupying hollows left by masses of dead ice around which glacial drift was deposited on the two rather level surfaces involved.

The physical history of Euchan is of interest. The original Euchan has eaten backwards and captured the upper part of Glengap Burn, a tributary of Kello Water. Walking down the Euchan valley one can see quite clearly, from Euchanhead, for example, the old valley continuing through the col between Mid Hill and Bank Hill, from the other side of which the beheaded Glengap Burn descends to Kello Water in a valley which, in its upper part at least, is obviously a mis-fit. Euchan, with this considerable addition to its volume, continued to deepen its course rapidly and the drainage through the old link soon became reversed, and the tributary which developed here has been particularly active. One headstream of it, the Poltallan Burn, has cut through between Mid Hill and Well Hill and beheaded yet another tributary of Kello Water, the Carcarse Burn. Glaciation has played a considerable part in the later shaping of these valleys, and we must refer to the spectacular development of moraines which probably belong to the corrie stage in the retreat of the local ice sheet, and which litter the

margins of the valley floor both above and below the point of capture, thus suggesting that the capture preceded the last glacial epoch in which these moraines were deposited. Glacial deepening of the main valley has not been so great as to render the earlier history of river capture much less obvious on the ground.

The remainder of the present paper will be devoted to a study of the physical history of the drainage of the upper Crawick basin. At the head of Crawick there is a through-trough which is so well developed that it is seldom referred to as a " pass," although the gorge-like nature of Crawick Glen certainly deserves that name. Crawick Water is a pirate obsequent stream which is actively pushing the water-parting in this trough ever nearer to the Duneaton Water, and has already taken to itself the drainage of some 2½ square miles of land beyond the county boundary, so that the fishing hook pattern of the Crawick drainage on the Lanarkshire side of the border stands out clearly on our river map. Looking down on Crawick Moss one sees the mature Duneaton Water meandering through a broad, flat-floored valley, and within 500 yards of its great meander, which is at 865 feet above sea level, there is, at the same level, the beginning of Whitecleuch Lane, which descends rapidly from this water-parting to join the pirate Crawick, which in turn quickly descends to the Nith at about 435 feet. Duneaton Water and Whitecleuch Lane are separated only by Crawick Moss, and the removal of little more than the covering of peat would enable the Duneaton waters to flow down Crawick. Here is a case of imminent capture, and man could easily, if he so wished, deflect this considerable supply of water from the Clyde to the Nith. Nature will in any case do it for him unless he intervenes in what we can justifiably call the near future.

Earlier capture by Crawick on a much greater scale has taken place. The through-trough from Spango Bridge to Crawick Moss is obviously a mis-fit valley which could not possibly owe its existence to the little Whitecleuch Lane and the even smaller un-named ditch which drains the northern half of Crawick Moss to Duneaton Water. It might possibly



have been excavated by glacial meltwaters escaping through the col in the water-parting, but it is much more likely that Spango once drained through this trough as a tributary of Duneaton Water, and the accompanying diagram is intended to show that this is not only a possibility, but is probably what happened.[4]

The profile of Crawick-Spango from the head of Fingland Lane has been drawn, and point C represents the position of Spango Bridge. The distance between C1 and D is equal to the horizontal distance between Spango Bridge and the nearest point of Duneaton Water at Crawick Moss, that being the only point at which the earlier Spango could have had its confluence with the Duneaton Water. Starting at point D we have therefore added to the diagram the profile

[4] J. H. G. Lebon: "Watershed Migration and the Passes of the Lowther Hills," in the Scottish Geographical Magazine, January, 1935.

N.B.—The writer has elsewhere, in connection with a thesis being submitted to London University, found it necessary to modify some of Lebon's findings and the profiles he based on them. His conclusions, however, are accepted and indeed confirmed, by further evidence set out in the present paper.

of the Duneaton Water downstream from Crawick Moss, and this obviously represents a mature river. Towards the head of the Spango Basin there is a section of Fingland Lane between the points marked A or B and Z which also appears to be mature, and by drawing a line from the lower end of this mature section at B to the Duneaton Water at Crawick Moss (D) the upper Spango (Fingland Lane) can easily be represented as a remnant part of the former upper course of a mature Duneaton headstream—mature almost to the head of its Fingland source. The asymmetrical water-parting of the Lowther Hills separated the mature Duneaton headstream from the rejuvenated Nith tributary which cut back through this water-parting and captured the Duneaton headstream at C1, and with this extra volume of water Crawick rapidly lowered its course to the present level at C. The Spango above C1 thus became part of the rejuvenated Crawick system, and the profile diagram shows that its rejuvenation has proceeded back upstream as far as point B.

After the capture took place there would still be a beheaded remnant of Spango flowing as a mis-fit stream between point C1 and Crawick Moss (D). With the lowering of the Crawick and Spango river beds an obsequent stream would gradually develop, flowing back down into Crawick at a point a few feet lower than C1, and lengthening backwards as Crawick rapidly lowered its valley, until now the Whitecleuch Lane has reversed the drainage of almost the whole of the stretch C1 to Crawick Moss (D), and joins the Crawick at the present level at Spango Bridge (C). It is this little obsequent which, as we have already suggested, seriously threatens to capture the upper part of Duneaton Water.

The mature section at the head of Fingland Lane certainly extends as far downstream as the 1100 feet contour (A) above which point we have in another connection suggested that the Friarminnan area resembles a former lake basin in appearance, but it is doubtful if we ought to regard it as extending as far downstream as point B, which is at 1057 feet above sea level.

It ought to be possible to find evidence in the form of "benches" on the hillsides indicating the approximate level of the former valley floor as represented in our profile diagram, and these benches, although progressively higher above the present rejuvenated river level from B to C, should actually descend gradually in altitude. Such benches have been carefully plotted on the six-inch maps and bear out our theory. They can be followed throughout the length of the valley from B to C; above the river just before it reaches Spango Bridge they are seen to be at about 150 feet above present river level, while in the neighbourhood of Gareland and Blackgannoch, near the Fingland Lane confluence, they are at a mere 20 or 30 feet above the river.

More important is the evidence provided by benches in the stretch between Spango Bridge and Crawick Moss (C—D). Here they are clearly seen to get lower as one progresses up the present Whitecleuch Lane—lower, not only in relation to the river, but in actual height above sea level. (Their approximate level is shown on our diagram.) Our evidence of the reversal of drainage through this pass does seem to be fairly conclusive.

If Spango were once tributary to Duneaton Water then Wanlock Water must also have been part of the same system, and although there is a reach of this stream above Duntercleuch Farm which may at first sight appear mature, an accurately drawn profile shows that it has, in fact, no mature section. It is possible that the original divide between the Duneaton and Crawick systems was far down the present Crawick valley, and that Wanlock Water, Spango Water, Glenaners Burn and Polthistly Burn, and even Cog Burn, may all have been tributary to the Duneaton. It will be noticed that the profiles of Wanlock Water and Cog Burn seem to provide evidence of this sequence of captures. The former Spango-Whitecleuch-Duneaton stream must have been at the level C1, i.e., about 920 feet at what is now Spango Bridge, so that the capture of Cog could only have taken place at a somewhat higher level, and it is interesting to note that it is just above this level that a sudden steepen-

ing of its gradient occurs. The rejuvenation of Crawick has passed up the lower course of Cog, or, expressing the same idea in a different way, lower Cog suddenly tumbles down into the lower level of Crawick—lower as compared with the former Duneaton headstream level. We find exactly the same evidence in support of our theory in the case of Wanlock Water, which, of course, would have been captured at a level a little below 920 feet. Its rejuvenation seems to have worked back up its valley to a level of about 1000 feet, or even higher, but then, with its greater volume, we should expect rejuvenation to have been more rapid than in the case of Cog Burn. If these two streams were former headstreams of a Cog-Crawick-Whitecleuch-Duneaton Water, then they were merely torrent tributaries.

At the head of Fingland Lane the Spango system is loosing ground to the Glenmuir Water of Ayrshire. The profile of Auchintench Lane between points X and Y suggests that it was once tributary to the Fingland Lane and that the rejuvenation of Glenmuir Water which has enabled it to cut back through the Connor Crags Gorge has also enabled it to capture this part of the former Fingland-Spango-Duneaton Water.

7th FEBRUARY, 1947.

Chairman—The PRESIDENT.

Pace Egg Day:
An Old Scottish Custom.

By GEORGE WATSON, M.A., F.S.A.Scot.

With the older generation, some of the happiest memories of early years centre in Pace (Dyed, or Easter) Egg Day, an anniversary often coinciding with Easter Saturday or Monday or (formerly in some Border localities) falling on the first Monday in April. The colourful custom has greatly languished, and it may be well to record its mode of celebration lest it fail from remembrance as well as observance.

So old is the practice of dyeing eggs about Eastertide, and either giving them as presents or rolling them on the greensward, that it is lost in the obscurity of antiquity. It is even stated that " there is some evidence to show that varied colours were used in pre-Christian times for dyeing eggs, and that red was the colour adopted when the custom was taken over by the Christian Church "—that colour doubtless being emblematic of the blood shed on the Cross. In the Greek Church the custom of giving presents of coloured eggs has long had vogue. Hakluyt's *Voyages* (1589), for example, has recorded that the Russians customarily " every year against Easter, die, or colour red with Brazzel [i.e., Brazil wood] a great number of eggs, of which every man and woman giveth one unto the priest of their parish upon Easter-day in the morning. And moreover the common people use to carry in their hands one of these red eggs, not only upon Easter-day, but also three or four days after; and gentlemen and gentlewomen have eggs gilded, which they carry in like manner. They use it, as they say, for a great love, and in token of the Resurrection, whereof they rejoice. For when two friends meet during the Easter holy-days," they (as this author says) interchange seasonable greetings, " and then they kiss and exchange their eggs both men and women."

In his *Journey into Siberia*, made in the middle of the eighteenth century, the Abbé d'Auteroche found this Easter custom of egg-presentation surviving, and (as he states) he partly met his obligations by giving to the second Russian donor the egg which had been given him by the first Russian who saluted him. As recorded by Chandler (who visited Greece in 1764), the Greeks celebrated Easter symbolically by exhibiting a representation of the crucified Christ; and in the evening "they made us presents of coloured eggs, and cakes of Easter bread."

In many parts of France, even till towards the end of the nineteenth century, it was usual to eat the "pasch" or Easter egg before any other food was partaken of on Easter day.

When tracing the "Religious History of the Calendar," the learned and industrious Antoine Court de Gébelin found evidences of this custom of presenting eggs at or about Easter time in the philosophy or life of the early Persians, Egyptians, Greeks, Romans, and Gauls—the egg being regarded as an emblem of the universe by some ancient peoples. And observing the Festival of the Solar New Year on 20th March, 1704, the Persians (as Le Brun recorded) presented each other with gifts, including coloured eggs.

In his *History of Customs* (1750) Father M. Carmeli stated that during Easter and some subsequent days, eggs, boiled hard and painted of different colours (yet chiefly red), form the usual food at that time; and that in Italy, Spain, and Provence certain sports with eggs are observed in the public places of resort.

In Britain the custom of egg-presentation has long had vogue—not the confectionery article that has been fashionable in these latter times, but the real product of the hen. Among the expenses of the first Edward of England's royal household at Easter, 1289, was a payment of eighteen pence for four hundred and fifty eggs—which is an interesting entry as demonstrating the great purchasing power of the penny in those early times, and the high possibility that

this large consignment was bought to give to the staff so that the Easter custom of presenting eggs might be celebrated by the rejoicing household and domestics.

Many other customs have been put on record in connection with eggs at Easter time. Some of these are given in *De Ludis Orientalibus*, a work produced in 1694 by the erudite Thomas Hyde, who recorded (pp. 239-40) that "in Cumberland and Westmorland . . . vagrants during Lent beg eggs to eat, while boys obtain them likewise to play with. By boiling, these eggs are hardened, and dyed with the natural juice of herbs, whether red, or green, or other colours. Boys are thus wont to colour them yellow with the flowers of the prickly broom or of the narcissus; red with onion skins; green with other herbs; swarthy with alder bark; dark blue with indigo: with these the eggs are boiled, alum being added to make the colours fast. With eggs thus prepared, the boys go to the fields and with great joy engage in play, either by throwing in the air like a ball, or by exchanging, or by rolling them on the ground—many doing so in order that theirs may meet those of other boys and thus crack them. And (on this occasion of Easter) they customarily do other things, as may be better ascertained from people of northern England." This north-western England usage of two and a half centuries ago—which has continued there down to the present one—bears a strikingly close analogy to the Easter customs of our youth.

In Cumberland the custom has long prevailed, though the Great War of 1914-18—and especially the recent World War—doubtless severely checked the happy annual celebration and diminished its observance, as it did elsewhere. In that north-western section of England the eggs were often stained also by winding about them ribbons of various hues, and then subjecting them to hard boiling, after which they were neatly arranged in a basket for purposes of display on Pace Monday, as Easter Monday is locally termed. In most parts of that county, children or youngsters rolled the ovals on a stretch of haughland or on a slope until they became

cracked or broken, when the hard-boiled food was eaten.

In various districts of the neighbouring county of Northumberland, too, these and pertinent customs have long been observed on Easter Monday, when the youngsters found much delight in " bowling " or rolling their " pace eggs " on the neighbouring stretches of greensward.

The juvenile custom has had widespread observance in Scotland, becoming deep-rooted in some districts, while in others it was so unemphatic that, though kept, it was unrecorded, and indeed barely noticed by adults. And here, also, the sorrows and stringencies during the European War of 1914-18 led to diminishing observance of a pretty custom already decaying because of competition with innovations. Yet it was observed until at least 1915 in Edrom parish, Berwickshire. Seventy years ago the children of Edinburgh and Leith were wont to roll their coloured eggs in the King's Park and other meadows; while the observance of this custom on Bruntsfield Links in 1917 has been recorded. An Edinburgh lady informs me that these Links formed the scene of this Easter egg-sport for long after the first World War; and that, now exiled from " Auld Reekie," she annually gives her boy at Easter a dyed egg in commemoration of the occasion.

For a long number of years the annual usage of rolling stained eggs has been current at Dundee, though there the Protestant children have held this sport on their Pasch Saturday, which usually fell on some other date than that on which the Roman Catholic anniversary occurred. On the Saturday before Easter of 1912 Dundee children thus went rolling their " pasch " or " pace " eggs (which are elsewhere in north-east Scotland called " peace " eggs).

Similarly at and around Arbroath on Easter Saturday the children rolled or threw their dyed treasures on a chosen greensward or especially on the commons, and when broken they were eaten, often with an orange. Indeed, egg-rolling at Easter was universally observed in Forfarshire, and a writer in 1918 noted its annual celebration six years before that date. In Ross and Cromarty the anniversarian custom

was celebrated on " Egg Monday," as Easter Monday was there called.

In Argyllshire, egg-rolling often took place down a " brae " or slope. The egg which longest escaped cracking or breaking in thus obeying the law of gravitation was supposed to augur success to its owner throughout that year, whereas the soonest cracked egg betokened bad luck till the year's end to the unfortunate owner. The annual usage is certified for Dumbartonshire, Glasgow, and elsewhere in Lanarkshire.

At Jedburgh this colourful custom became firmly established long ago, and has been especially observed by the school children, or occasionally in latter years by mothers for the benefit of the children, as a revival of the memories of schooldays. It has thus a lasting place in the earliest recollections of very many—especially of the older generation. On a Monday early in April—in Teviotdale emphatically called Dyed Egg Day—the usage was observed annually, until new school holidays reflecting English practice came into fashion; and the custom (perhaps about 1895) began to be observed, with diminishing interest, on Easter Monday. For several days previous, wonted preparations were made, particularly in securing dyestuffs wherewith to colour the eggs that each had obtained in view of the annual celebration. These were thus boiled at home with various dyeing ingredients, such as logwood, coffee, ribbons, onion skins (which gave a rich fawn colour), whin bloom (usually obtained from gorse growing near the Dunion), and other stuffs. Lucky was the boy who could obtain a number of eggs, each of which he might dye of a different colour; and thus a wonderful clutch of eggs of diverse bright rich hues he could often show to his emulous and perhaps even envious comrades!

The morning of Dyed Egg Day was usually well advanced, to permit the sun to dry the grass, before the exodus of children with their vivid-coloured treasures to convenient secluded greenswards or grass fields, whose owners' ban on trespassers was suspended for that occa-

sion. Others went farther afield—bent one and all on the quest of " rummling " (rolling) or " thrawing " (throwing) the tinted eggs. But the frequent celebration sites were the verdant slopes of Howden Burn, and the Lambskin, a sloping pasture field having a small plateau above. Down the gentle descent the eggs were sent rolling, sometimes bounding, and that occasionally to such a degree that they could not be overtaken or stayed by the younger or youngest, and so they sometimes bounced over the bank bordering the burn. From the plateau, already mentioned, the older of the boys would with a vigorous initial run hurl the coloured ovals high over brae and burn to the slope on the oppoosite side, where (in certain years) the soft yielding earth would receive some few unbroken—so hard were they boiled, so " giving " was the garden soil. Some specimens sustained several such throws and concussions before becoming cracked or disintegrated. When eventually broken, the eggs were sometimes found to have their " white " coloured by reason of the hard dyeing. Yet, even so, these foodstuffs—whether so hued or unduly hard—were then eagerly eaten with " jelly pieces " or other available dainties. Let those who will, scoff at such over-boiled eggs and stained egg-whites; but there was no ptomaine poisoning or the like on such gala occasions.

If Dyed Egg Day fell on the first or second of the month, " Hunt the Gowk " or April-fooling added to the ploy; for the rhyme

> " First and second o' April—
> Hunt the gowk another mile "

allowed us one more day's such " gowking " than is now permitted. Did the day happen to be free from rain, games, frolic, glee, and other innocent pursuits of childhood ensued. With the older of the boys (and these were " under-twelves "), the cliffs, sinuosities, widths, and pools of the burn, and the trees and bushes clothing its banks, often formed the scenes of—and obstacles in—the game of " Follow my leader " (or " Fickles," as we named it vernacularly).

In Jedwater the essentially school children's custom of observing Dyed Egg Day began to languish about half a century ago. The restrictions and difficulties resulting from the first World War gave the practice a crippling blow, and thereafter the usage must have been retained especially as a reminiscence of mothers' earliest years. The difficulty of egg-supplies during the recent war has made the celebration of the custom almost inconceivable, even if it had survived in that district till 1939. The more especial name in Jedburgh for this festival, particularly amongst the younger fraternity, is now " Roll-Egg Day." Referring to " the rolling of the ' Dyed Eggs ' " last Easter Monday, the Jedburgh weekly said that it was " celebrated in traditional style (by) many picnic parties of children and their parents." Thus has the custom revived after the long horror of warfare.

In Hawick this time-honoured custom (named also Dyedie Egg Day) was celebrated on Easter Saturday; and for weeks children would look forward to the day when they might " trinnle " (roll) their coloured treasures. The older children—as the late Mrs A. C. Smith recorded in *Hawick Arch. Soc. Transactions* for 1935, p. 46—would arrange races for their juniors, and make prizes for the winners. A meadow was often the chosen site; but some went farther afield, as to the Vertish Hill or to Gotterson's Knowes; though if the weather were unpropitious, a barn or other cover was perforce often chosen, to shelter from the inclement elements. But in Hawick district also the custom has yielded to innovations. The modern child is no longer content with the simple pleasures that were prevalent towards the end of last century.

An esteemed correspondent vouches for the former prevalence of the custom in the upper Teviot, almost bordering on Dumfries. There the indispensable eggs were often dyed with the yellow stone-crop, of which the drystone dykes yield an abundant supply. My friend remarks that many children rolled or threw the eggs up the " brae," so as to catch them the more easily in their return.

At Southdean until the beginning of the great World War of 1939-1945, as the Rev. J. R. Spence informs me, the school children were wont to have dyed eggs on Easter Monday, which they rolled in the vicinity of the school. Mrs Spence instituted a competition for the Sunday School children on Easter Sunday, and in this way secured a nice collection of beautifully dyed eggs, which were generously sent to the Church Orphanage and the Deaconess Hospital in Edinburgh.

Similar celebrations with such coloured eggs, called " Pace eggs," were observed on Easter Monday along the Tweedside districts of Roxburghshire, where this gala day was (and may still be) named Pace Monday, or Pace-egg Day—in which " Pace " represents *pasch* (" passover," hence Easter). The heartsome occasion often brought out youngsters in their best or new clothes, resulting in such youths being jocularly (if not gibingly) called a " Pace " gentleman or a " Pace " lady.

The evidence thus adduced shows that the Easter custom has been firmly established throughout the mainland of Scotland; and it would have been odd had Galloway failed in its observance. Yet such failure or neglect is alleged in *British Calendar Customs* (p. 41), a work compiled by Mrs M. M. Banks and published in 1937. Apparently relying on imperfect information, the authoress states that the annual practice of so rolling Easter eggs is " not known in south-west Scotland." She had written to several friends in Wigtownshire, a part well known to herself. To the districts about Glenluce, near Stranraer, the Isle of Whithorn, Newton-Stewart, and even Dumfries, she especially refers as localities where " no one seems to know anything about " the custom of egg-rolling; and the diligent editor jumped to the conclusion that this alleged non-observance may have been due to a zealous Presbyterian people regarding the practice as more especially a Roman Catholic usage.

Yet the fact remains that the colourful custom has long existed in our south-west, and one must conclude that the

collectors did not make inquiries among the people who were the more likely to have witnessed its observance among children.

My own inquiries to this end have been ably supported by Mr R. C. Reid, who has been the medium of receiving and sending some valuable information. Fostered by a letter from Mr Reid published in the *Kirkcudbright Advertiser* and the *Galloway Gazette* of December 30, 1944, interest in this subject stimulated the forwarding of some interesting communications, which ably supplements my own information.

The cumulative evidence, then, fully substantiates the fact that this widely known custom has been strongly current in this present century at Langholm, Dumfries, Auldgirth, New-Galloway, besides the following Kirkcudbright localities: Terregles and Buittle (as attested by a native now in Inverness); Gatehouse-of-Fleet, Borgue, Creetown (and some other places in the Stewartry); and, moreover, various localities in Wigtown, such as Mochrum near Glenluce, Newton-Stewart, and Stranraer. Attestation from these parts alone should suffice to establish the widespread observance of this annual custom throughout our three south-western counties, and thus substantially to refute the statement made in *British Calendar Customs*. Some localities may, of course, have dropped or failed to adopt the annual usage: thus a native of Carsluith Bridge (a village destroyed by a quarry blast thirty or so years ago) reports that he had not seen or even heard of the custom until in manhood he saw about 1911 the children observing the practice supposed by him to be an innovation from Glasgow. Conversely, the custom is remembered as in vogue in the Mochrum area about 1880, when even then it was a traditional practice. The usage has also been observed annually around Belfast.

In some parts of the south-west, childish interest was centred in whose egg should first reach the bottom of the slope or field. Thus rolling the ovals was called " pirling " the eggs at Girthon or Gatehouse. Diverse fates befell the

prizes: at Newton-Stewart any eggs unbroken in the ordeal were taken home as trophies and duly consumed there.

Among the replies above referred to was one of especial value from Mr James W. Scholes, M.A., of St. Michael's School, Dumfries, who made an interesting investigation into the matter, especially by discussing it with 375 pupils ranging between seven and eleven years of age. All of these had heard of the annual custom, and indeed some 95 per cent. claimed to have engaged in it. The dye-stuffs include " tea, coffee, cocoa, ink, onion skins, gorse flowers, cloth dyes, and ' Sylvan ' soap flakes." Some fifty of the children said that after dyeing, names and figures were added to the eggs, Hitler being " an easy first favourite." What joy these children would experience in hurling " Hitler " into the air, or " rolling " him down a slope, even though in every case the contest was " to see whose egg would last longest " ! In the questioning, the youthful suggestion was made that the practice of " rolling eggs " symbolised the rolling away of the stone from the sepulchre entrance (Matt. xxviii., 2).

The pastime has endured throughout the Stewartry—it is believed—from time beyond living memory; and a questionnaire made by Mr John Henderson, M.A., at Borgue School elicited the fact that the great majority of the children have engaged in this sport, celebrated there on Easter Sunday, either by throwing the eggs in the air, rolling them down a knoll or other slope, or playing with them marble-wise to see who will crack another's first.

It is interesting to note that egg-rolling has long been an annual custom at Washington, D.C., whither it was doubtless introduced from the " old world " by emigrants, and where its hold has survived the trials and vicissitudes of various wars. On every Easter Monday the children of Washington assemble in the White Lot, situated immediately behind the famous White House, and indulge in the playful pastime of rolling their eggs, coloured or uncoloured, down the gentle slope. Crowds of people congregate to witness the sport, in which at times thousands of young folks par-

ticipate. Formerly the picturesque pastime was held in the Capitol grounds; but because of injury done to the turf and the shrubs by too frolicsome youngsters, the rendezvous was changed to the vicinity of the White House.

While this egg-rolling usage may have been introduced into the States by Scottish immigrants, still it is conceivable that it owes its origin to the Dutch settlers of the Hudson Valley. As Bartlett recorded about a century ago, New York boys delighted to dye eggs — called by them " Paas eggs "—of various hues for Easter, and were wont to crack them together with those of other boys in celebrating that festival, as readers of Washington Irving's fanciful History of New York may remember.

The Rev. Dr. Wm. M'Millan has contributed the following: In 1916, whilst acting as padre to the Highland Mounted Brigade, he was stationed at Kharga, in the Libyan desert—an oasis rather like a big hole in the earth's surface some 30 miles across. There had not been any Christians in the place for 1000 years, though the Mosque was evidently an ancient church. The people were Libyans, not Egyptians, and although Mohommedans still practised certain Christian customs. They still baptised, or rather dipped, their children on the eighth day after birth, but what was more remarkable was that they presented one another with coloured eggs at Easter, a good example of ritual acts being used long after the meaning of them is forgotten.

In 1941 he was again a padre at Ormskirk Military Hospital. Some Scots lads were patients, and one asked if the " boys " could not get " Easter eggs " as they did at home. The Quartermaster, a Scot from Motherwell, produced some eggs. A Scot in the dispensary agreed to do the colouring, and a sister boiled them in the ward kitchen. The orderly, a lad from Durham, at once asked, " Padre, are we to have Pash eggs?" It was the first time Dr. M'Millan had heard the word used colloquially, and on enquiry found it was still in use in the North of

England. Pasche, meaning Easter, occurs quite often in old Scots records, and, though the meaning had largely been forgotten, the term continued to be used, even by men like Samuel Rutherford, to whom special Holy Days were anathema. See also J. S. Elder's *Memories of Maxwelltown*, p. 64.

Still Another "Croftangry."

By GEORGE WATSON, M.A., F.S.A.

To this Society's *Transactions* for 1940-44 I had the honour of supplying a contribution on "The Place-Name 'Croftangry.'" That essay aimed at completeness, as far as published sources would permit. Various other examples may, of course, be known locally, or may be found in old records. Mr R. C. Reid, F.S.A.Scot., has in the course of his researches found one such rare example, and provides me with the material with which to supplement my list of those interesting place-names. The instance has been found in the Rental of the Provostry of Lincluden, about 1560, and reads thus:

> The Myln of Terrauchty, xi bolls of meill of the grete mesor of Nyth.
>
> Croft Angri pertenyng to the myll of Terrauchty payand yeirlie iiiis. mele at vitsunday and mertynmes.[1]

I fail to locate this instance of Croftangry on the six-inch O.S. maps. Local knowledge on this, and other examples not already collected by me, is invited. For fuller evidence may put beyond doubt the origin and application of the intriguing place-name.

[1] Wm. M'Dowall: "Chronicles of Lincluden," p. 113.

The Logan Whale—1719.

By R. C. Reid.

In his *Description of Galloway* (1684) the Rev. Andrew Symson makes this statement:

> About the year 1674 there was a pretty large whale which came up the River of Blaidnoch and was killed upon the sands. I did not see it but saw several pieces of it; for the country people ran upon it and cut as much as they could bring away and made oyle of it, which many persons got good of; but I am told, if it had been managed right and not cut so in pieces as it was, it might have been improved to a far greater advantage. The oyl that I saw and made use of was very good and clear and burnt very well in my lamp.

The Rev. author was of opinion that the salvage was not "managed right," but leaves us in the dark as to how the work was effected or mismanaged.

But now some more light can be thrown upon the subject, though it relates to another cetacean. Amongst the papers of the M'Dowells of Logan recently deposited at the Register House are some relating to what is known as the Logan Whale, though it is not clear how it received that designation.

The family tradition is that the whale came ashore at Logan, and that the Laird, who claimed powers of Admiralty under his early charters, dealt with it in his Admiralty Court of the Barony of Logan. He certainly exercised at a later date such powers in his Baron Court, the proceedings of which, 1736-88, are shortly to be published, but it is doubtful whether those proceedings were legally valid. That, however, does not effect the story of this whale, which was not dealt with by the Laird in his Baron Court.

These papers show that, though the whale may have been driven ashore at Logan according to tradition, the disposal of its body took place elsewhere.

At the end of the month of June, 1719, a large whale came ashore, perhaps on the coast of the Barony of Logan. It is not known whether it was alive and killed by the country folk as in the case of the Blaidnoch whale referred to by Symson, or whether it was washed up dead. All that is known is that it was carried out to sea in a gale, and drifted up the Solway coast till it was located off the estate of Cavens, then owned by John Murray, where it grounded on the lands of Prestoun.

Dr. John Murray was owner of Cavens and Preston in right of his wife, Helen Murray, of the Elibank family, descended from Sir James Murray of Kilbaberton, who acquired Cavens in 1664.

John Murray at once sent off an express messenger to acquaint the Admiral Depute of the district, Robert M'Dowell of Logan. There is no record amongst the Logan papers of any commission held by Robert M'Dowell from the Vice-Admiral, but in that official's letter of July 31st he makes definite reference to it as follows: "The opinion that I had from lawyers was that you should by virtue of your commission from me hold an Admiralty Court and repell" any claims to the whale.

The Vice-Admiral was John, 8th Earl of Rothes, who was appointed Vice-Admiral of Scotland in November, 1715 (*Scots Peerage*, vii., 303). He had recently sold his ancestral estate of Rothes and was living at Leslie House, from which these letters are written. He was a man of experience in public affairs, and his letters show that he was willing to exercise his powers in a statesmanlike manner. John Murray of Cavens, who owned the lands of Prestoun, clearly considered that he had a right to whatever was washed ashore, whether from shipwreck or whale carcass, and based his case on the clause which figures in some early charters relating to the gift of wrack and ware, which Rothes on legal advice maintained was only the right to lead seaware or seaweed for the dunging of their land—"yet a whale which is a Royal Fish can never be comprehended in that," adding—"and sure if he is right advised he'll rather lett

the matter be setled in a friendly manner than dispute a right which he won't be able to support."

In a later letter, dated 30th October, Rothes amplifies this as follows:

> Your brother (Andrew M'Dowell, Lord Bankton, a noted lawyer of his day) said he would tell you that the method to be taken with the gentleman that claims a right to have the affair before the High Court of Admiralty, and he in conjunction with my other lawyers is to take care of that. The gentleman may know that I am not a hard man to deal with, but he and every man must allow me to preserve my rights that I have the honour to be trusted with from his Majesty.

John Murray of Cavens, however, was kept far too busy with the dead whale to start any legal proceedings as to what he thought were his rights. The day after he notified Robert M'Dowell of the whale's arrival at Prestoun he sent off another messenger warning the Laird of Logan that the inhabitants of Prestoun and Kirkbean parish were collecting hatchets and similar implements to cut up the whale and carry it away. We who are offered whale steaks in return for food coupons can appreciate the eagerness of the natives of Kirkbean to procure their steaks free of coupons as of cash. Besides, there was the added inducement of whale oil, which even a minister like Andrew Symson was glad to burn in the lamps of his manse. Nevertheless Murray realised that the parishioners would quickly make havoc of all anticipated profits, whether for the Crown or himself. So he selected twelve men from his own servants and tenants to guard the whale during the rise and fall of four tides. But their guardianship was to be curtailed. Before an answer could come back from Logan a gale arose and blew the dead whale out to sea. Murray at once despatched a boat and twelve hands to re-take the whale. It was a stormy day that July 4th, and the boat had to cover four leagues westward down the coast before the whale was again secured, and the first news that Murray received of the boat and crew was a message from M'Dowell that the crew had

successfully brought the whale to Balcarry, a heavy and risky operation, involving a long and arduous tow, duly rewarded with £1 apiece to the crew, with meat, drink, and brandy. The message also sought his assistance and that of his men to guard the carcass against the population, who were gathering in great numbers to cut up and remove it. So once again a guard of twelve men was sent to " keep the country off " for four days and nights.

It must be assumed that at this stage, July 7th, M'Dowell as Admiral Depute arrived on the scene, for great activity followed. Indeed, quick action was imperative, apart from the threatening attitude of the countryside. For the whale had been buffeted about for a week or more and may well have been dead some time before it was first sighted. That July was a hot one, and decomposition to some extent must have already commenced. Expresses were at once sent to Dumfries, Kirkcudbright, and Annan to buy up casks in which to put the whale fat. Forty-five hogsheads were secured in two days—12 at Annan, 27 at Dumfries, and 14 at Kirkcudbright. They were brought on horeback, each horse carrying two strung over its back, but on arrival many were found to have no heads and others had hoops missing. For these, Murray and M'Dowell had to send to England, as none could be procured in Galloway. Perhaps some Carlisle brewer obliged, for they came by sea to Keltoun and thence by horse to Balcarry. Whilst these efforts were being made, preparations for cutting up the whale proceeded. Half a dozen small knives were bought at 6d each, and an equal number of " great knives " were made out of scythes at 1s each. And then for six days, from July 7 to 13, all hands were engaged on cutting up the whale. The average daily number of workers employed was 28 men and 7 women, and it is a remarkable comment on the economics of the social structure of those days that the men only received one shilling and the women tenpence a day. One may also be sure that it was not a forty-hour week. In charge of this large gang of labour were three overseers to stimulate the workers and to assist in keeping off the country

people. Other forms of stimulant were also applied. Each worker received a pint of ale a day. At one stage of the work brandy had to be supplied, no less than 13 pints being consumed, "it being absolutely necessary, the smell being so noisome and the weather hott." An attempt was made to alleviate the effect of the stench by the purchase of tobacco, a roll of twelve pounds weight being consumed. It makes one sigh for the good old days when one learns that this tobacco cost only eightpence per pound.

One operation must have presented some difficulty, namely, the turning over of the whale after one side had been stript of fat. The accounts merely record that it was effected by means of cables and cords, but they also establish the care taken to avoid any loss, for several persons were employed to gather up the oil off the water and sand during the cutting up and whilst the tide was lapping round the whale.

Work was also started on the next process. A pit was dug in the moss and lined with clay to hold the surplus fat which the hogsheads could not contain. Some distance from this pit—no doubt owing to its aroma—caldrons were set up for boiling. They were new ones, costing £5 10s and £4 respectively, and in the accounts were written off as a total loss, having been rendered useless by the process. They had been brought from Dumfries.

There followed a pause of 31 days, for what is known as "carcass oil" is obtained only after the mass has putrefied. During this period six men with two mastiff dogs were employed to guard the fat both at the pit and in the hogsheads at the cauldrons, lest it should be stolen by the country folk.

The interval was utilised in overhauling the hogsheads. Two coupers from Dumfries spent six days on this job, and their tools had to be brought on a horse to Balcarry and thence back to Dumfries. All the barrels were limed when found to be leaking.

Then the fat was boiled, pressed in a large press costing 10s, and the resultant oil strained through a cloth which

is expressly stated to have been half hair and half wool.

Lastly the oil was lodged in a storehouse from the middle of August to the middle of January under the care of two men, whose duty was to inspect it.

All these operations had taken place on the land of Balcarry, belonging to John M'Colm. His enclosures had been broken and his meadow trodden down by the workers and his corn had been damaged by " the multitudes of people that daily and hourly came in great numbers from all parts of the country to view the whale " and watch the work. Arbiters assessed the damage at £10. The total outlays amounted to £87 15s 3d.

These papers tell us nothing about the by-products—whalebone, sperm oil, and the flesh of the whale. Whalebone, an inaccurate name, comes from the palate on the roof of the mouth of the whale, an exaggeration of the ridges found on the roof of all mammals. For market purposes whalebone is boiled for 12 hours till quite soft, and then cut into strips. There used to be a ready market for it for umbrellas until metal frames came into use, and, of course, ladies' corsets used up quite a lot. In the 17th century £750 a ton was its market price, two centuries later it was as low as £25, but at the beginning of the 20th century it leapt up to £2000 a ton. Crinoline frames and the tight-laced corsets of the early Victorian epoch may have partly accounted for this. Its price to-day should be low, in view of the much sought after " two-way stretch " of the modern corsetière.

Sperm oil is really a liquid wax derived from the head cavity of a sperm whale, and is of real value. Though the correspondence indicates that experts were sent from Edinburgh to analyse the oil then being refined at Dumfries, the lack of reference in the accounts would indicate that the carcass was not that of a sperm whale. There need be no surprise at the absence of reference to the flesh of the whale. Its decomposed condition must have rendered the flesh unfit for food.

There is no record of how the oil was disposed. There

is no profit and loss balance sheet. But it is evident that Dr. John Murray commenced legal action against the Vice-Admiral on the ground that the whale was his in law.

The correspondence shows that protests and memorials had been lodged, and David Hope, the lawyer, writing on December 30, stated that the process is to be carried on to determine the right of property. The process has not been traced, and the case may never have come into court. Dr. John Murray must have realised he was on doubtful ground. Fish are the property of the captor, but Royal Fish, including whales, pertain to the Crown provided they are caught in territorial waters and are whales of large size. (Stewart, *The Law of Fishing*, p. 57.) Whales of small size belong to the captor, whether taken in the sea or run aground on a beach. (Bruce v. Smith, 1890.) Dr. John Murray couold hardly claim that his whale was a small one, so he rested his claim on the fact that his charters included a Crown gift of wrack and ware and claimed the whale as wrack. But he did not press his claim and accepted a compromise. Just twenty years later the same issue was raised in the courts in the case of Sir John Home v. the Admiral Depute, 1739 (also Elchie's Decisions v. Regalia, No. 2), where it was decided, but apparently with some hesitation, that whales do not fall under a gift of wrack nor can be regarded as flotsam.

Murray bought the whale, or rather the whale products, from the Vice-Admiral at an unstated price, and then entered into partnership with the Admiral Depute for its disposal. The final reckoning took place at Cavens on 28th February, 1721, and shows the profit of each partner was £57 10s sterling. The following is the text of the documents.

An account of the charges debursit by John Murray of Cavens relative to the whale taken on this coast and manufactoring the same in oyle.

June 30—For ane express sent to the Admirall Deput giveing him notice that a great fish was throwen in upon my ground of Prestoun ... £0 2 0

July 1—For ane other express signifying the country

	were gathering togeither with hatchetts and other instruments to cutt doun and carry away the same	0	2	0
July 3	—For twelve men of a guard to keep of the country being my own servants and tennants four tyds eight d per tyde to each	1	12	0
	For ane express from the Admirall Deput giveing ane account that my boat and men had taken the whale and brought her to Balcarry desireing my assistance and men to keep of the country who were gathering in great companies and threatning to cutt it doun and carry it off	0	2	6
July 4	—For the boat and twelve hands sent out to retake the whale four leagues off in a stormy day quhich they did to the great danger of ther lives each man being promised 20 shillings	10	10	0
	For meat and drink and brandy to the men ...	12	6	0
July 7	—For a guard of twelve men sent to guard the fish and keeping the country off four days and nights at one shilling per day	1	16	0
	For three expresses one to Drumfries one to Kirkcudbright and an other to Annan for providing the casks to putt in the fatt into ...	0	8	6
	For 45 empty hogsheads for putting the fatt into att 4 shilling per hogshead	9	0	0
July 9	—For carriage of the said 12 casks being six horse carriage from Annan being 36 miles distance att four shilling per horse	1	4	0
	For custome of the said hogsheads att Annan...	0	1	0
	For carrige of 27 casks from Drumfries being 14 horses att two shillings and 6d per horse ...	1	15	0
	For carriage of 14 casks from Kirkcudbright 7 horse	0	9	4
	For the custome att Drumfries and Kirkcudbright of 39 casks	0	3	3
	For six great knives made out of syeths all one shilling each	0	6	0
	For half a dozen small ones att 6d	0	3	0
	For naills chalk and cork to the casks ...	0	2	0
July 7	—For 24 men and six women imployed in cutting up the fish and carrying the fatt and gathering the oyle the men att 1 shilling and women at 10d	1	9	0
July 8	—For 31 mens wages and 8 women wages att the same price on the said account	1	17	8

July 9—For 28 mens wages and six womens on the said account	1	13	0
July 10—For 25 mens wages and 7 womens on the said account	1	10	10
July 11—For 34 mens wages and 8 womens on the said account	2	0	8
July 13—For 24 mens wages and 6 women on the said account	1	9	0
For three overseers to assist in keeping off the country people and holding the men to ther work att five groats per 6 days	1	10	0
For 13 pints of brandy given to the workers the time of cutting doun the fish it being absolutely necessary the smell being so noisome and the weather hott	1	6	0
For a Role of Tobacco att 12 lib att 8d for them	0	8	0
For ale to the workers at the time of the cutting being a pint to each person per day ...	1	14	6
For six men one day in makeing of a pitt in the moss and claying it up to hold the fatt quhich the hogshead could not contain ...	0	6	0
For the hire of three horses and men two days in drawing the said fatt to the pitt 18 pence to each horse and man per day and the like for other two days in drawing the same from the pitt to the boiling place	0	18	0
For six mens wages imployed to watch the fatt in both places night and day for 31 days who were obliged to have two Mastive dogs with them to keep the country from stealing of which—charges were absolutely necessary that it might ly so long to mortifie before it could be made into oyle, att one shilling per day to each	9	6	0
For two new caldrons for boiling the fatt and makeing it into oyle quhich were rendered useless £5 10 shillings for the one and £4 for the other	9	10	0
For carriage of the same from Drumfries being two horses carriage	0	5	0
For six men imployed in cutting the small fatt and boiling and casking the oyle one week att one shilling per day	1	16	0
For a stranger seaman who understood the manner of boiling te same att five groats per day	0	10	0

For peets made use off in boiling the oyle being 36 load att 3 d per load	0	8	6
For two couppers imployed 6 days att 15 pence per day each	0	15	0
For a man and ane horse to carry their toills to Balcarry and from thence back to Drumfres	0	5	0
For hoops and heading sent for from England to the hogsheads none of them being to be had in this country	1	6	0
For boat fraught therof	0	2	6
For the carriage therof from Keltoun to Balcary	0	5	0
For a cloth to strain the oyle being half hair and half wool	0	2	6
For a large press for pressing the fatt after it being boiled	0	10	0
For lime and hair to the casks...	0	2	6
For 6 men for 1 day in carrying hogsheads from the place of boiling of the oyle to the storehouse	0	6	0
For 6 men for 1 day in carraying out the casks out of the storehouse in order to be limed when they were found leaking and putting in the same again	0	6	0
For cables and cords quhich were borrowed too hold the whale and assist to turn her in time of the cutting	0	5	0
For two men appointed to see and overspect the said oyle while in the storehouse from the middle of August last to the Middle of January instant for viewing and takeing care of the said oyle.			
For John McColm of Balcarry in consideration of his damnages in his corns and bear breaking doun of his inclosers treading doun his meadow grass and distroying the same by the innumerable multitudes of people that daily and hourly come in great numbers from all parts of the country to view the said whale and by the people imployed to cutt the same and is more specially condescended upon by the declaration of two honest substantiall men in the neighbourhood appointed by both pairties att the time to view and give ther judgement relative to the saids damnages as the same here with annexed will testifie...	10	0	0

For severall persons for gathering up of the oyle from off the water and sand the time the said whale was a cutting while the tide was about the said fish	2	0	0
*£87	15	3	

* This total does not tally with the items, which add up to £94 5s 3d.

1719, July 31. Leslie. Letter from Earl of Rothes to [ ].

Sir,—I had a letter from you on Monday last when I went to Edinburgh. I endeavoured to see you there but was not so luckie and was oblidged to come home. I entirely approve your conduct as to the whale that came in, I am very willing that the gentleman that brought her in should have a liberal allowance not only for the expence he has been at but also for the pains that he has taken to recover her. At the same time by the advice of the best lawyers I can assure you that what is a general clause in some gentlemen's charters of Wrack and Ware is only a right to lead sea ware for the dunging of their land, and though it were otherwise yet a whale which is a Royal Fish can never be comprehended in that, so that were I to advise the gentleman, he'll certainly make more by what I propose than by a processe that may cost him money to no purpose. My way is to be generous eneugh in such things but if he putts us to a law suit, he cant expect after that so much favour as he may have otherwise. The opinion that I had from lawyers was that you should by vertue of your Commishon from me, hold ane Admiral Court and repell any defences that he can make as to his right and that what expences and trouble he has been at should be considered after it is known what the value of the fish amounts to. There's also another thing I would have you to take notice to which is that there are, that we know, but two sort of whales, one that has the whale bone and these are not of great value, but where that is not they generally have a good mixture of the sperma coete amongst their oyle which if right [ ] comes to be of very great value. I can give you an example—Earl Weems my predecessor in this office sold two small fishes to two of the name of Hill in Queensferry; all he got for them both was £90 sterling, and they afterwards owned to me they made above £700 sterling apiece by them. There's one Russell ane apothecary in Edinburgh I think was useful to them, so you would enquire into the nature of the oyl. I hope you'l excuse this long letter since I desire it may be so manadged as may be both for your advantage & mine, & the gentleman

that assisted, and sure if he is right advised he'l rather lett the matter be setled in a friendly manner than dispute a right which he wont be able to support. If this finds you in town if you'l please to talk with Mr Garden of Troop or Mr Patrick Haldane who are my lawyers, and they give you advice.

I am, your faithfull & most humble servant

Rothes.

1719, Oct. 20. Leslie. Letter, Earl of Rothes to Mr [John] M'Dougall, yr. of Logan.

Sir,—I had yours on Friday by your brother who did me the favour to come here and likewise delivered one from Mr Murray of Broughton. The account I gott from you of that fish makes me believe it may have some spermacet amongst the oyl which will make it of more value, at least I think it worth the while to know & for that end I have employed Mr Rigg the bearer who understands it very well & is one that I can entirely trust, and may be helpfull to you in this matter. As to the valuing of it, I have given him full directions that he may in conjunction with you doe everything that is necessary. Your brother said he would tell you that the method to be taken with the gentleman that claims a right is to have the affair before the High Court of Admiralty and he in conjunction with my other lawyers is to take care of that. The gentleman may know that I am not a hard man to deal with but he and every man must allow me to preserve my rights, that I have the honour to be trusted with from his Majesty.

If this don't prove to be spermacet I have empowered Mr Rig to make a bargain for me to the best advantage & if you have a mind for it yourself, you shall have the first offer. If not, I hope you'l give him all the assistance you can.

I am with great truth, Sir,

Your most faithfull & humble servant,

Rothes.

1719, Nov. 10. Letter from the Earl of Rothes to [ ].

Sir,—After considering the severall methods of manadgeing this fish, I find the most effectuall and most profittable way is to send Mr Russell who understands that affair perfectly to see the oyle, and he takes along with him Mr Clerk of this country who is to have his direction to seperate the sperm from the oyle soe that it may be carried afterward where it can be more conveniently refyned than where it is. I perswad myself you will give all the concurrence and assistance you can which will

be for your advantage as well as mine, since you are not to doubt but you shall have a just allowance for your own pains and trouble over & above the necessarie charges you have been at. I have been ill for some days which makes me use ane other hand which I hope you'll forgive and believe me to be your faithful humble servant

Rothes.

1719, Dec. 30. Letter from David Hope to Mr M'Dowell of Logan.

Sir,—I received your letter with the two coppys of Protests and Memoriall & have since advised with my Lord Rothes Law[y]ers as to your behaviour with respect to them. They are of opinion that you take joint measures with Cavens for transporting and Lodging the oil at Dumfreis or other place convenient for refining the same. But that before you lift it you cause gadge the casks before a nottar and witnesses and protest for the damage by inlake against Cavens that may have happened by his refusing you and Mr Clerk access to the same. As for his demand of bringing it to a roup they say it can only be done by warrant from the Court of Admiralty, so that he cannot force you to concurr in it. Besides if he consider it rightly, it would be a loss to whoever shall be found proprietors yrof to dispose of the same without knowing the value especially that there is reason to believe it may be considerable.

You may write me so soon as the same is conveniently lodged that I may acquaint my Lord that he may give his directions in case he should think proper to send back Mr Clerk or any other for overseeing the manadgement yrof.

In the meantime the process is to be caryed on to determine the right of property which my Lords law[y]ers make no doubt will go in his Lordship's favour.

I am Sir

Your most humble servant

Da. Hope.

1721, Feb. 28.

Discharge by Dr John Murray of Cavens to John McDowell of Logan of a bill of this date drawn by him upon Mr William Froud in London payable to William Alves W.S. for £57 10 0 sterling being the equal half of the price of oyle & sperma cols of a whale bought by me from the Admirral & wherein we are joint partners conform to an agreement betwixt us. Written by John Somervaill of Barnhourie, at Cavens and witnessed by John Neilson of Chappell & the said John Somervaill.

Sanquhar Church During the Eighteenth Century.

(Continued.)

By Rev. W. M'Millan, Ph.D., D.D.

Mr Cunningham died on 25th August, 1768, and it was not long until arrangements were being made to get a successor. At the first meeting of Presbytery held after the death, Mr Bayne of Keir was appointed to "preach the church vacant," and it was also agreed to inform the Duke of Queensberry of the vacancy. On the first of February, 1769, a presentation from the Duke in favour of the Rev. John Thomson was laid on the table of the Presbytery, but this did not conclude the matter. At the same meeting Bailie Whigham and David Tait, both elders in Sanquhar, together with John Maxwell of Terraughty (the Duke's Commissioner for the Barony of Sanquhar), gave in a petition from the Magistrates, Town Council, Heritors and Heads of Families of the Town and Parish of Sanquhar, "subscribed by a great number," asking that Mr Thomson might be sent to preach to them. Mr Thomson was duly sent, and he must have given satisfaction, for at the April meeting of Presbytery, Provost Crichton, Bailie Lorimer, Bailie Whigham, and Robert Wilson appeared and asked that the congregation of Sanquhar should be allowed to address a call to Mr Thomson. The Presbytery, therefore, met at Sanquhar on 27th April and moderated in a call to Mr Thomson, as desired. At this meeting, the parishioners were asked to subscribe the call and many did so; but there were a number who wished to let it be known that, while they wanted a minister, they did not altogether approve of the methods employed in getting one. A paper was presented to the Court subscribed by Thomas Alexander, Robert Wilson, and John Dalziel, all elders in the parish, stating that their signing of the call to Mr Thomson "shall not be considered as any approbation of patronage against which we give our testimony."

Patronage, which one way and another was to do so

much harm to the Church of Scotland, was re-established by Act of Parliament in 1712. From the Revolution up to that date ministers had been chosen by the elders and heritors. For the first twenty years or so after 1712 patronage was seldom exercised, in the sense that an unacceptable presentee was forced upon a congregation unwilling to receive him. The next twenty years, however, saw a stiffening in the attitude of the patrons and a slackening on the part of the Church Courts of resistance to patronage; though it was still recognised as a grievance and efforts to get rid of it were made regularly. A Secession Church had been established in Sanquhar in 1738, and as a prominent part of the Secession testimony was the iniquity of patronage, there need be no doubt that views antagonistic to the system were in circulation in the district. This paper of protest is, however, the first evidence we have of the prevalence of such opinions in the Kirk Session of Sanquhar. Whatever were the views of the members of Presbytery on this subject, no objection was made to the reception of the protest and it was duly recorded in the minutes of the Presbytery. It may not be out of place to mention that a little later the Presbytery of Dumfries petitioned the General Assembly to take steps to get patronage abolished. The Presbytery, having sustained the call to Mr Thomson, appointed him to undergo the regular trials before ordination. Among other things asked of him was an "Exegesis upon that question *An Christus pro omnibus mortuus est*"? "Did Christ die for all men?" a question which in those days of rampant Calvinism admitted of much disputation. This was not the first time that the Presbytery had examined the young minister. About two and a half years before he had to undergo trials before being licensed. On that occasion the Exegesis prescribed was on the question, "*An Christus sit verus Deus?*" "Is Christ truly God?" On both occasions he appears to have passed all his examinations successfully, and on 1st September, 1769, he was ordained to the Holy Ministry. On this occasion the Presbytery met in the Council House for the first session, and "John M'Call Kirk Officer in Sanquhar" was sent to make

the usual intimation at the Church door. In the afternoon the Presbytery again met, and Mr Keyden of Penpont preached the ordination sermon from the text, I. Corin., xvi, 11—"Let no man therefore despise him." We know nothing of the sermon, but it may be safely affirmed that considering his future career there never was a minister of Sanquhar less likely to be despised than John Thomson.

John M'Call, whose name appears as Kirk Officer, was, like his predecessor, also Burgh Officer, though the earliest reference we have to him in the latter office is a little later than the one mentioned above. In 1771 the Town Council made him a grant of half a crown as he had lost a child by death, a small sum compared with what the Councillors could spend on themselves at the expense of the public. At the King's Birthday celebration, which came just a fortnight after the grant had been made to M'Call, the amount spent on drink was £1 17s. John got a shilling on this occasion and doubtless had a share of the liquor as well. Eight years later we find that the Council paid 3s 6d "for ¾ yard red cloth for livery to John M'Call, officer." Evidently it was to make something in the nature of an official sash.

Mr Thomson was somewhat over the usual age when he was licensed in 1767, having been born in 1741. He was evidently a native of the district; but of what parish is not known.[1] He has the distinction of being the only minister of Sanquhar, from the Revolution, who, being in possession of the full benefice, left the parish for another.[2]

The year following his settlement in Sanquhar, he married, 6th June, 1770, Helen Forrest. They had a family of four, all born at Sanquhar—William Aird, James, Andrew Mitchell, and Jean.

William followed in his father's footsteps and became a

1 I have seen it stated that he was the nephew of James Thomson (son of the Minister of Southdean), who wrote "The Seasons." This is most unlikely.

2 A silhouette of Mr Thomson, taken from one executed after he went to Edinburgh, now hangs in the vestry of Sanquhar Parish Church. An engraving of his famous son, Andrew, is also there.

minister. He was born in Sanquhar Manse on 28th January, 1773, and was educated at the old parochial school in Sanquhar. He proceeded to the University of Edinburgh, was licensed by the Presbytery of Kirkcaldy, 28th September, 1796, and ordained at Dalziel, 24th September, 1801. When the third charge at Perth was restored (afterwards the Middle Parish) he was presented thereto by the Town Council of Perth and admitted 22nd April, 1808. The University of Glasgow conferred the degree of Doctor of Divinity upon him in 1833. Two years later he received the highest honour the Church of Scotland had to bestow, being chosen as Moderator of the General Assembly, 21st May, 1835.[2a]

Belonging as he did to the "Non-Intrusion" party he "came out" in 1843 and was minister of the Free Church, Perth, from the Disruption to his death in 1863, being then the "Father" of the Free Church. He had a family of two sons and two daughters. His eldest child, John William, became minister of Moneydie and followed his father into the Free Church at the Disruption. He had a family of eight, and his youngest daughter, Janet Moncrieff, became the wife of Rev. Andrew Melville, D.D., who was elected to the principal clerkship of the General Assembly of the Free Church in 1884, and who in that capacity signed the deed of union when the United Free Church was formed in 1900.

The Sanquhar minister's second son was James, who was born 29th August, 1774. He appears to have died while still young. The third son was the best known of the family, Andrew Mitchell Thomson, who was for some time the leading minister in the Church of Scotland. He was born in the old manse on 11th July, 1778. Like his father and brother he was educated at the University of Edinburgh and was for some time schoolmaster at Markinch, where his father was minister. Regarding his earlier days there, an interesting story is told. His brother had, on more than one occasion, acted as precentor in the church, and young Andrew being asked what he wished to be—a minister like his father or a precentor like his brother—he replied that he wanted to be

[2a] His portrait is in the General Assembly Library, Edinburgh.

a beadle and then all the offices of the kirk would be in the family. He was licensed by the Presbytery of Kelso, 7th October, 1800, and ordained at Sprouston, 11th March, 1802. He was presented to the East Church, Perth, by the Town Council there and admitted on 31st March, 1808, just three weeks before his brother was admitted to the West Church.

He was little more than two years in the Fair City, when he was translated to New Greyfriars', Edinburgh, on 16th May, 1810. He remained there until 16th June, when at the call of the City Council of Edinburgh he was admitted first minister of St. George's Church in that city. There he remained until his death on 9th February, 1831. He had been at a meeting of Presbytery and had just reached his own door when he dropped down dead on the pavement.

Dr. Thomson (he had received the degree of Doctor of Divinity from Marischal College, Aberdeen, in 1823)[3] was speedily recognised by his brethren in the ministry as a man of outstanding ability, and it has been said that had he lived, the Disruption would never have taken place. While no one was more fearless in advocating the freedom and independence of the Church, he possessed other qualities, not conspicuous in those who succeeded him in the leadership of the "non-intrusion" party, which, it was felt, would have enabled him to bridge the gulf between the government of the day and the Church of Scotland.

He took the leading part in the great Apocrypha question, wherein, it may be said, he exhibited a narrowness of mind, which was characteristic of many Scots ministers of that date. The question was whether the Bible should be circulated with the Apocrypha,[4] and despite the fact that the versions used both by the Reformers and the Covenanters had contained the Apocrypha, yet its inclusion was vehemently opposed by Scottish ministers generally.

3 In 1818 he was offered the D.D. of Columbia College, New York, but he declined to accept it.

4 The British and Foreign Bible Society, which a number of Scottish Bible Societies supported, had been circulating Bibles containing the Apocrypha on the Continent, where it was felt that its inclusion would help the circulation.

The last great public question on which Dr. Thomson took a prominent part was the anti-slavery agitation. He was the advocate of immediate emancipation of the slaves, and, though he did not live to see his views prevail, the actual liberation came shortly after his death.

He was a keen musician, and was energetic in improving the practice of psalmody in the congregations of the people, where it had fallen on evil days. He drew up a collection of psalm tunes, all of which he carefully revised, and, while his views on these matters are not commonly accepted to-day, all students of Scottish music give him credit for his work in this direction. He composed a number of tunes, of which two, " St. George's, Edinburgh " and " Redemption," are still widely used.

For over twenty years he was editor of the *Edinburgh Christian Instructor*, writing many of the papers therein with conspicuous ability. He published in addition a number of volumes of various kinds, his *Catechism on the Sacrament of the Lord's Supper* going through many editions.

He had a family of ten, of whom seven survived him. His eldest son, John, was the first professor of music in the University of Edinburgh. His youngest son, Andrew, became minister of Maybole in 1840, joined the Free Church in 1843, resigned his charge in 1845, and is believed to have been killed by Chinese pirates on the last day of 1859.

Of Mr Thomson's ministry in Sanquhar a few particulars have survived. Simpson speaks of him as a " distinguished person and an eloquent preacher."[5] Regarding his preaching a somewhat amusing story is told, though its setting was Markinch and not Sanquhar. He had preached one day on the moral depravity of mankind and the many evils which go to form man's immorality. He was afterwards on his way to the manse, when he overtook two of his parishioners who were discussing the sermon. Wondering what their verdict was, he managed to listen to them, without himself being noticed, and was considerably surprised at the

5 " History," 128.

following dialogue: "Weel, Davie, did ye hear a' yon?" "Deed that I did, Johnny, man." "And what thocht ye o't a', Davie?" "Deed, Johnny, man, if he hadna been an awfu' chiel himsel', he wadna ha'e kent sae weel aboot it."[6]

Two incidents during Mr Thomson's ministry in Sanquhar may be mentioned. On Sunday, 23rd December, by the Presbytery's appointment, a special service of thanksgiving was held "for the late uncommonly good season for accomplishing the works of harvest and the remarkably plentiful crop, which this part of the country now enjoys." It would seem from this, that "Harvest Thanksgivings" are not the modern things which they are sometimes alleged to be. It is hardly likely that there would be any decoration of the Church at that period; but we learn from Mrs Dunlop, the friend and correspondent of Robert Burns, that in her girlhood it was customary to decorate the Parish Church of Ayr with spring flowers on the first Sunday in May.[7] Can this have been a survival of a pre-Christian custom?

The other incident which may be noted occurred in 1784, when the "Buchanites" marched through the parish. They left Irvine in the May of that year, and their first halt was at Dundonald. From there they made their way to New Cumnock, and then proceeded down Nithsdale. They reached Kirkconnel on a Saturday night and got quarters in the village. On Sunday, Mr White,[8] their leader under "Luckie Buchan," preached to those who would listen, and on the following day they came through Sanquhar and got to Slunkford on the borders of the parish.[9] Here they were refused all shelter, not even a barn or the lee side of a hay stack being allowed them. According to Allan Cunningham, "some were in carts, some were on horseback and not a

6 Harvey: "Scottish Life and Character," 256.

7 Wallace: "Correspondence of Burns and Mrs Dunlop," 321.

8 Rev. Hugh White, who had been ordained in 1782 at the Relief Kirk in Irvine.

9 Slunkford was then a village of some twenty houses. The foundations of one of these were visible twenty years ago.

few were on foot. 'Our Lady,' as they called Mrs Buchan, rode in front on a white pony, dressed in a scarlet cloak." Many of the women, we are told, were not out of their teens.

The question of the Queensberry mortification was again raised by the Presbytery, and in 1773 a committee was appointed, of which Mr Thomson was a member, to go into the matter once more. In a petition, which was presented to the Duke, it was stated that it was his grace's grandfather who had given the first precept and that the "annual rent" had been paid for "near a hundred years," as shown by Session records, "particularly of Sanquhar." The Committee later reported that the Duke had "seemed fully persuaded that the bond was still in existence" and had behaved "in every respect as graciously as to afford the most encouraging hopes of success." It was also reported that in the Session records of Kirkconnel of 1734 there was a reference to the bond being in the possession of the Duke. In 1774 a reply was received stating that no trace of the missing bond was to be found; but that the Duke would give 600 merks annually during his lifetime to the poor of the parishes indicated—Durisdeer, Morton, Penpont, and Sanquhar, the last having to divide its share with Kirkconnel. The Duke, who acted thus, was no other than "Old Q," whose conduct in this respect at least stands out in marked contrast with that of the Buccleuch family, which followed him in the possession of the Queensberry estates, but who did not continue the grant to the poor of the parishes named, to whom it morally, if not also legally, belonged.

In 1780 Mr Thomson requested the Presbytery to visit his manse, which, he said, was in a bad condition. The members did so about three weeks later, when he was able to assure them that the heritors had decided to re-build the steading, which was "ruinous." He was quite willing that the question of repairing the manse should be left over, and this was agreed to by the Presbytery.

While Mr Thomson was Minister here, a great change

was made in the drinking customs associated with the funerals in the parish. As everyone knows, the amount of drinking and even of drunkenness connected with funerals, especially in the rural parts of Scotland in the 18th century, was almost unbelievable. Indeed, some of the old stories which have come down to our time show that, despite the alleged espionage of the Elders, things were done which every right thinking person would now condemn in no measured terms.

There are no Session Records extant dealing with the period of Mr Thomson's ministry, and those of the Town Council have no reference to the change that then took place. As a matter of fact, judging from the amount of liquor which the Burgh Fathers consumed (at the expense of the public), the Council could not have been too sympathetic towards the alteration.

In one of his last works, and drawing doubtless on what he had been told when he first came to the district as a young Minister, Dr. Simpson deals with the state of affairs towards the end of that century in Sanquhar, and writes of the funeral feasts thus: "The first round . . . consisted of huge slices of cheese and loaf bread, preceded by a glass of strong whisky and sometimes home-brewed ale. Next followed a glass of rum accompanied with shortbread. This was the second round. The third consisted of a glass of wine with large square pieces of rich bun. In some cases these rounds may have been repeated. And, finally, there were carried round the circle on trays or in baskets a large quantity of pipes and tobacco of which almost all availed themselves. . . . In many instances not a few were highly intoxicated and followed the bier to the churchyard staggering from side to side."[10] No wonder that English officers witnessing these functions pronounced "a Scots funeral to be merrier than an English wedding."[11]

Nor did the drinking stop when the cortege started for the churchyard. A supply of liquor was carried from the

10 "Cottars of the Glen," 91-92.

11 "Social Life in Scotland in the 18th Century," 54.

house and the last dram was partaken of after the corpse had been laid in the grave.

The results of such indulgence were, of course, visible to all; but it was not until the latter decades of the 18th century that public opinion was sufficiently strong to call for some modification.[12] Under date July 24th, 1773, we find in the minutes of the Hammermen that the members of the Craft were seriously concerned about the state of affairs in this matter. They resolved that in consequence of the "extravagant expense attending the Funerals of their deceast friends (and) in order to prevent such in time coming," the "members of the Craft shall only give warning to their friends at the hour appointed and no entertainments as usual, under the penalty of 8s Scots." Apparently the Craftsmen wished to confine the attendance at funerals to those whose interest in the same did not depend on the amount of "entertainment" provided.

About the time this minute was written, a meeting of the parishioners was held in the Council House, and under the leadership of the Minister it was agreed that there should be only two drams served at funerals in future, one at the "lifting" and one after the actual interment. While the greater part of the population applauded the change, there were those who were opposed. One of the latter being asked to attend a funeral some days after the alteration in the drinking customs had been agreed on, instantly replied that he for one was not going to "chainge his claes for twae glesses o' whisky," adding, "they may keep her till she rots for me."[13]

12 Little whisky was used in the Lowlands of Scotland till after 1750, though it had been well known in the Highlands long before that date. There can be little doubt that the introduction of whisky instead of ale had much to do with the degrading scenes at funerals. Mr Ranken in the "Old Statistical Account of Sanquhar" states quite definitely that the changing of ale houses into "dram shops" had a pernicious effect on his parishioners.

13 The writer may be allowed to say that at the first funeral at which he officiated (circa 1907) a dram was partaken of by all, or at least most, of the mourners at the "lifting." The funeral was from a shepherd's cottage (Penbreck) to Sanquhar Churchyard.

Alongside of the drinking customs at funerals there was another one which may be mentioned. On such occasions it was the regular practice to make what was called an "awmous" to any poor people who attended the function. Readers of Sir Walter Scott will remember that Edie Ochiltree presented himself at Glenallan House in time to receive a share of what was being distributed following the funeral of the old Countess. In Sanquhar the "awmous" consisted latterly of a sixpence and a "piece," probably something in the nature of a sandwich. James Kennedy, in one of his poems, refers to this custom and mentions how on one occasion it led to tragedy. A death had taken place at Glenwhargen — now a herding — then a farm in Scaur Water, and a poor Sanquhar woman had set out to cross the Mains Hill in order to be present at the distribution. She wandered from her way, was overcome by fatigue, and died on the hill, her body being discovered some time afterwards. It is difficult now to say when this custom died out, but it was in vogue in the early nineteenth century, though latterly only at the funerals of the specially well to do.

During his ministry Mr Thomson published at least three sermons.[14] One of these was issued at Glasgow in 1781, while he was minister at Sanquhar. Unforunately we have been unable to lay our hands on a copy.[15] Another, which may possibly have been written in whole or in part at Sanquhar, was preached before the Society for Propagating Christian Knowledge in Scotland, at their anniversary meeting in the High Church of Edinburgh, on Thursday, 2nd June, 1785, less than a month after he had gone to Markinch from Nithsdale. This sermon, which bears the title, "The Grounds of the Christian Faith," was preached from the text, St. John, vi., 68—"Then Simon Peter answered him, Lord to whom shall we go? Thou hast the words of eternal life."

This sermon runs to fully 12,000 words and probably

14 "Fasti," I., 35.

15 There is no copy in the National Library or in the General Assembly Library.

took two hours or thereby to deliver. The question of missions to the heathen was beginning to agitate the members of the Church, though it was not until 1796 that the matter was debated in the General Assembly. Mr Thomson shows where his sympathies lay on this question. While he points out that the powers of the Society on whose behalf he was pleading were limited, yet it was to help to spread the Goospel light "through distant and unknown lands." The sermon concludes with a prayer, and, as written prayers by ministers of the Church of Scotland in the 18th century are somewhat scarce, we give it in full:

> To Thee, O Father of lights, we lift up our eyes and implore Thy divine blessing. The cause is Thine, for it is the cause of truth and charity. Reveal Thy mighty arm for its support: strengthen the hands employed in carrying it on and crown their laudable efforts with success. Dispose all of us in our different stations to employ with a steady zeal the talents and opportunities which Thy Providence hath put in our power, for the defence and propagation of the Gospel. Hasten the happy period when the kingdoms of this world shall become the kingdoms of our Lord Jesus Christ; when all nations shall hear and embrace the words of eternal life; and when the empire of truth and righteousness and peace shall obtain an universal and lasting establishment; and to Thy Name let all the praise be ascribed. Amen.

This sermon which was printed by the Society is dedicated to "The Right Honourable David, Earl of Leven." This nobleman was from 1783 to 1801 Lord High Commissioner to the General Assembly.[16] It is more than possible that it was through the good offices of the Earl that Mr Thomson was translated to Markinch. In those days the Royal Commissioner exercised a very considerable influence in the matter of the patronage of parishes wihch were in the King's gift, as was Markinch.

[16] On his last appearance in that office he was over eighty years of age.

The preaching of the " Society Sermon " in the 18th century was regarded as a great honour, second only to that of preaching the " Assembly Sermon " before the Lord High Commissioner and the members of the supreme court. The fact that Mr Thomson was chosen to preach it while still in Sanquhar shows that he must have been a well-known man in the Church even in those earlier days.

Mr Thomson published another sermon, entitled " The Nature of True Religion and its Beneficial Influence on the Character and Happiness of Man Explained," the text being Job xxi., 14-15. This was printed at Edinburgh in 1793. Then at Glasgow in 1799 another publication of his was issued, " Letters on Frequent Communing." Of a different type was " General View of the Agriculture of the County of Fife," which he published at Edinburgh in 1800. He also wrote the account of the parish of Markinch for the Old Statistical Account.

For several years Mr Thomson had as a companion minister in Sanquhar another Mr Thomson, this being the Rev. Andrew Thomson, who in 1776 was ordained and admitted to the charge of the Anti-Burgher Church, now St. Ninian's.[17] This church was then, and still is, popularly known as the " Doon-the-gait." In Mr Wilson's *Folk Lore and Genealogies* there is a delightful story of one of the " unco guid," by name Meg M'Call, who was a member of the Anti-Burgher Church. She did not believe in entering in to the " inner chamber " to perform her devotions but liked to let all the neighbours know when she was at her supplications. On more than one occasion she was heard invoking the Divine blessing on her minister, but apparently fearing lest the wrong man should get the benefit she added the caution : " An' mind Lord it's no Maister Tamson at the Waterside, but oor ain gude and godly Maister Tamson doon the gait." The old manse stood beside the Nith (the large pool beside it is still known as " The Minister's Pool "), hence the designation given to the parish minister. The old

[17] Rev. Andrew Thomson was in April, 1808, Moderator of the General Associate Synod (Anti-Burghers).

tale now finds a place in the " Reminiscences " of Dean Ramsay.

The occasion of his leaving Sanquhar was somewhat unfortunate. His wife, as has been said, was Helen Forrest. She had a sister, Fanny, who was for some time resident at the manse. Fanny and John Fraser, the parochial schoolmaster, became very friendly—too friendly, in fact—with the result that there was a runaway marriage and a great scandal. Fraser resigned his position and with his wife went to America, while the minister felt compelled to look for another parish. He found such at Markinch, to which he was presented by George III., being inducted there on 5th May, 1785. Fifteen years later—September, 1800—he was translated to New Greyfriars', Edinburgh, where, strangely enough, he succeeded his own son, Andrew, in the charge. Two years afterwards he was presented by the City Council to the New North Church and was inducted there 16th December, 1802. He remained there for about a dozen years, and on 20th October, 1814, was re-admitted to New Greyfriars'. He died in charge of the last-mentioned on 17th February, 1822. He received the degree of Doctor of Divinity from the University of Edinburgh in December, 1798.

His first wife died 25th October, 1801, and on 5th January, 1803, he married Ann Cowan, daughter of Francis Cowan, minister of Gladsmuir. She bore him three children —John, Francis, and Ann. John became minister of Shettleston in 1829. Like other members of his family, he joined the Free Church in 1843, and became minister of the Free St. George's Church, Montrose, in that year. He was afterwards minister of Free Greyfriars', Aberdeen. He married Beatrice Dempster, daughter of John Dempster, in 1834, and had the tragic experience of losing his wife and three children in less than two months—17th May to 9th July, 1842. He married a second time in 1844, and died as recently as 4th December, 1893. The lives of father and son covered no less than a hundred and fifty-two years. John, like his half-brother William, was " Father " of the Free Church at the time of his death.

21st FEBRUARY, 1947.

Chairman—The PRESIDENT.

Dumfriesshire in Roman Times.

By ERIC BIRLEY, F.S.A.

It is just over twenty-six years since the late Sir George Macdonald contributed a paper on " The Romans in Dumfriesshire " to this Society.[1] Then, as now, long years of war had interrupted archæological research, and it seemed a suitable opportunity to take stock of the knowledge which the return of peace might make it possible to enlarge by a renewal of active work. I cannot hope to rival Macdonald's stately and sonorous prose, but it so happens that the past quarter of a century has witnessed a far greater advance in knowledge than fell to him to survey; there is a wealth of new material to take into account, thanks to the activities of a number of scholars, and with excavation once more a possibility and no longer a subject for wishful thinking, it seems appropriate for me to take stock afresh and to lay the results before the Society. There is one point which I would like to emphasise at the very outset; the researches, both in Dumfriesshire and elsewhere, which I shall have occasion to refer to have been carried out by various people, not all of them members of this Society; and though this Society itself has played an honourable part in stimulating and supporting research, it is not the only society concerned. The problems presented in Dumfriesshire are of much more than merely local interest, and we must regard ourselves as the local representatives of the learned world at large; there is more research still to be undertaken than we can hope to tackle without outside help, and we cannot but welcome all—societies or individuals—who are prepared to come to our assistance. The sequel will show, I hope, that this corner of Britain in its time played an important part in history; and I would add that, archæologically, it is second to no comparable district in the varied richness of its structural remains; let us hope that in the years before

1 " Transactions," 1920-21, viii., p. 68.

us Dumfriesshire will give as strong and productive a lead to archæological research as it did, half a century ago, with the excavations at Birrens, Burnswark, and Raeburnfoot, to the reconsideration of which Macdonald's paper was largely devoted.

It is instructive to turn to that paper now, and see what sites it deals with and what space it devotes to them. It was natural that the fort of Birrens should claim the lion's share, with nineteen out of the thirty-one pages: the bulk of Macdonald's reconstruction of the historical background was worked into the survey of that site; four pages are devoted to an examination of the evidence for a Roman road through Annandale, and for Roman sites on its line reported in the eighteenth century by Roy; four pages cover the two Eskdale sites, Gilnockie and Raeburnfoot; and the remainder of the paper deals with Burnswark. It will not, I think, be unfair to say that the general picture emerging from the paper as a whole is not a very clear one; Macdonald himself emphasises, time and again, the need for further research — for example, his cautious and, on the whole, critical survey of the evidence for a Roman road through Annandale is qualified by the observation that a few days' spadework might settle the question; and if I myself can succeed in offering you a more detailed and coherent picture of Dumfriesshire in Roman times, this evening, it is just because there has been such spadework on a number of sites. But, as you will see before long, there is immeasurably more such work to be done, both literally and figuratively, than has been done hitherto; and one of my most important tasks to-night must be to indicate some of the lines which future work may most profitably take, and some of the ways in which this Society as a whole and its members as individuals may be able to assist in the elucidation of the many historical and archæological problems involved.

Geographically, Dumfriesshire may be divided into two distinct areas. In the east lies Eskdale, cut off from the rest of the county by a rugged range of hills; the only convenient access is up the winding course of the valley up-stream from Langholm, though a car with strong springs

may make its way across the hills by moorland roads up the Water of Milk or past Boreland from Lockerbie; to north a rough road makes its tortuous way across a winding pass to Ettrick, and in Roman times (as Dr. Richmond has recently shown) a mountain road led north-eastward from Raeburnfoot, across Craik Moor, towards Newstead on the Tweed. But the bulk of the county may be described as a plain, bounded on the west by the Nith (across which rise the tangled hills of the Stewartry), and eastwards by the Annan, with a central ridge of hills tailing away south-eastwards from the main peaks of the Lowther Hills to the north. Annandale and Nithsdale, besides delimiting the main area with which we are concerned, also provide easy access over low passes into Lanarkshire and Ayrshire to the north and north-west; main roads and railways follow both routes now, and there is reason to suppose that both routes were used by the Romans, too, in their day, though only in the case of Annandale are we able, as yet, to point to structural remains of the Roman road.[2] There are thus two distinct problems for us to consider, namely, the occupation of Dumfriesshire itself, and the use of the routes through it to the Forth-Clyde isthmus and beyond, or into the Ayrshire plain. For transit purposes, it is plain, this area was only of importance to the Romans as long as their frontier lay on that isthmus, or beyond it; and for that reason their full exploitation of Dumfriesshire necessarily fell in the relatively brief periods when the frontier was far to the north: namely, towards the end of the first century, and from *circa* 140 until the early years of the third century. But even after Hadrian's Wall had been established, or re-established, as the formal frontier of Roman Britain, the Dumfriesshire plain, like that of Northumberland, provided a natural outfield, where it was convenient if not essential to maintain

[2] The explanation, as Dr. Richmonod has pointed out to me, is simple: the Annandale road runs largely through uncultivated moorland and so has been preserved almost intact; in Nithsdale, intensive cultivation will have removed most of the structure, though occasional patches may survive here and there, to obstruct the plough or assist the archæologist.

fortified posts, and where judicious support of a native dynasty might serve to provide a useful buffer-state, to reduce the risk of barbarian attacks on the frontier line proper. The detailed picture is still an obscure one, but recent research seems to indicate that two such buffer-states did in fact emerge in the course of the third and fourth centuries, one in the east and one in the west; the latter, including Dumfriesshire, seems represented by the dark-age kingdom of Strathclyde, which stretched across Solway to include the western hinterland of Hadrian's Wall, thus emphasising the essential unity of the civilisation and interest which that barrier at first sight seems to divide into two sharply contrasted parts.

This is not the place to attempt a detailed survey of the historical framework of the Roman period; indeed, much of the detail is still matter for dispute; but it will be convenient, before we turn to examine the anatomy of the Roman occupation, to recapitulate briefly the main framework of it. The first entry of the Romans into Dumfriesshire is customarily associated with the name of Julius Agricola (governor of Britain A.D. 78-85), who was certainly the first to carry the structure of Roman government—roads and permanent forts—so far north, and much further north, too, beyond Forth and Clyde and up to the edge of the Highlands; though it seems possible that the armies of one or two of his predecessors, in particular Petillius Cerialis (governor A.D. 71-74)—under whom Agricola himself commanded a legion—may have penetrated into the district in the course of active operations. How long this first occupation lasted cannot yet be said with any certainty; but on balance it seems probable that the bulk of Agricola's forts in Scotland had been abandoned, and the frontier withdrawn to the Tyne-Solway line, before the close of the first century. That does not necessarily imply that they had evacuated Dumfriesshire, which, as we have seen, constitutes a natural out-field of the latter frontier; and in any case there were more vicissitudes in this early period than we can yet disentangle with certainty; Macdonald himself first drew

attention, in an epoch-making paper contributed to the *Journal of Roman Studies*,[3] to the evidence for a series of structural periods, all undoubtedly earlier than the Antonine occupation, on a number of Agricolan sites in the north of Britain, and Mr John Clarke's recent exacavations at Milton, near Lockerbie (of which, more later) have shown that there is similar evidence within Dumfriesshire itself. The second period opens with the advance of Lollius Urbicus, *circa* A.D. 140, which resulted in the establishment of the Antonine Wall from Forth to Clyde, and the re-occupation of most of Agricola's old fort sites northwards to the Tay; this period, too, was not without its vicissitudes, marked by destruction and re-building, as Macdonald pointed out to us twenty-six years ago, and as excavations on several sites in Dumfriesshire have reminded us since then; its end (as I have argued elsewhere)[4] came in the closing years of the second century, when the Roman Army of Britain was fighting and losing a civil war on the Continent, and the northern tribes—smarting from a savage punitive expedition in A.D. 184—rose as one man and overthrew or attempted to overthrow the whole structure of Roman military rule as far south as York and, it seems, Chester, too. The third and closing period, as far as the bulk of Scotland was concerned, barely outlasted the first decade of the third century: Septimius Severus, after his victory over Clodius Albinus and the Army of Britain in February, 197, seems to have aimed at restoring the Antonine system in the north; his governors, Virius Lupus (A.D. 197 onwards) and Alfenus Senecio (attested *circa* 205), can be traced now buying peace from the northern tribes, while the work of re-building was put in hand, now carrying the war northward and winning victories—where, and over whom, the scanty record does not say; but in A.D. 208 Severus himself came to Britain, and the accounts given by Cassius Dio and Herodian leave no room for doubt that he intended, like Agricola long before him, to conquer

3 "J. R. S.," ix., 111-138: "The Agricolan Occupation of North Britain."

4 "Proc. Soc. Ant. Scot.," lxxii., 340 f.

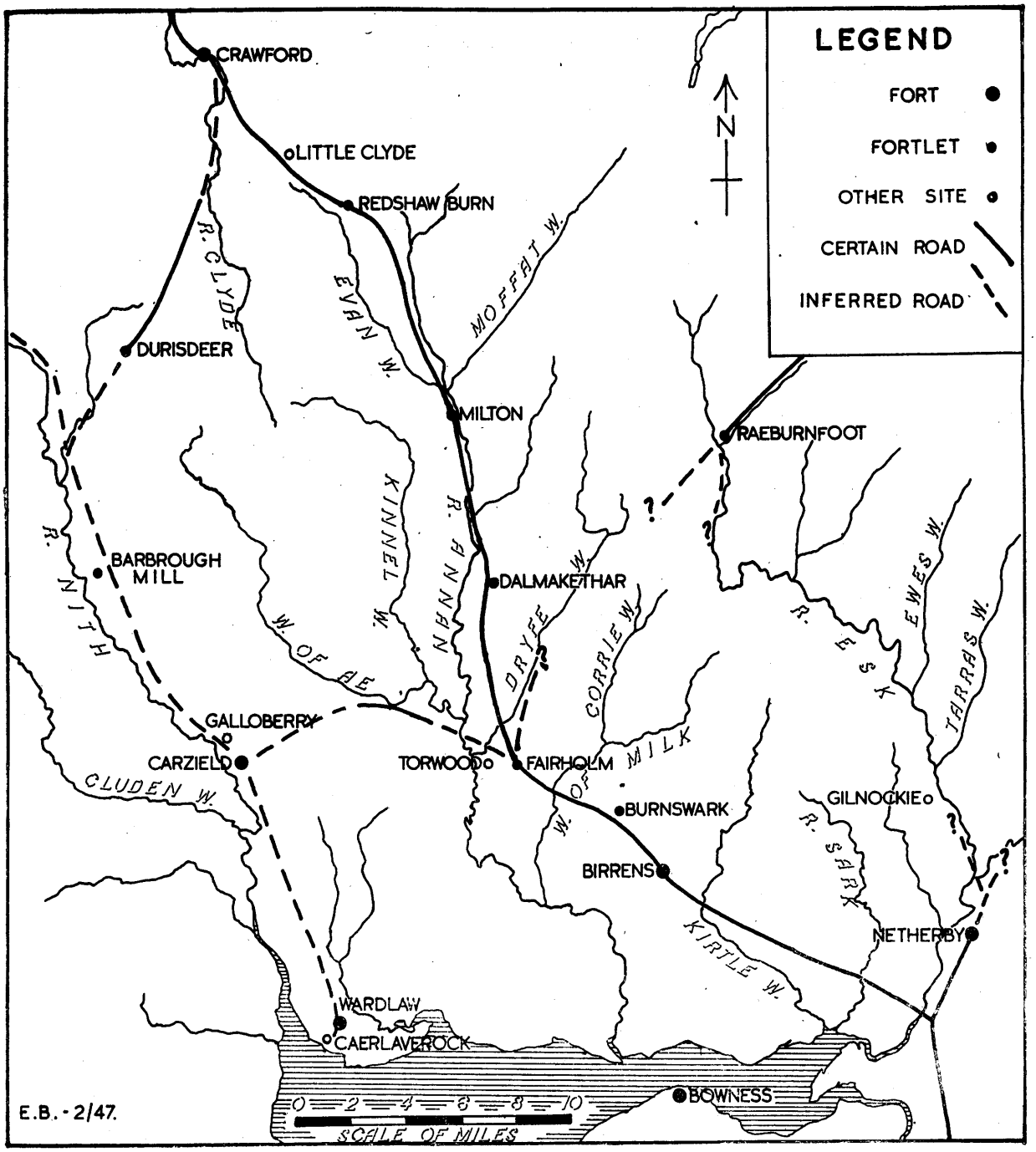
and hold the whole island. But in February, 211, Severus died, and his sons—Caracalla and Geta—made peace with the northern tribes, withdrew garrisons from their territory, and thereafter, until the close of the Roman period, Hadrian's Wall and its outliers marked the northern limit of direct military control. This Society's excavations at Birrens, a few years before the war,[5] have demonstrated that that fort was one of the outliers in question; whether there were others within Dumfriesshire we cannot yet say, but analogy with the eastern buffer-state suggests that it is in native strongholds such as Castle O'er or Burnswark, or in the lesser forts or habitation-sites of the native population, rather than the Roman sites, that we should expect to find the traces of life and Romanization of a sort in the third and fourth centuries.

The ebb and flow thus briefly surveyed, and the shift of frontier backwards and forwards, are the outward signs of a conflict of policies which can be traced on many other frontiers of the Roman Empire. In brief, there were two conflicting schools of thought; one maintained that the framework of direct control should be extended to the limits of friendly territory, or at least of territory capable of providing a good strategic frontier and of receiving a friendly population; Angustus, in the central period of his reign, followed such a policy in reorganising the northern frontier of the empire, Trajan followed it on the lower Danube and in the east, and Severus followed Trajan's example in the east; in Britain, that it what the first governors of the Flavian period—Cerialis, Frontinus, and Agricola—were doing, and the advance of Lollius Urbicus shows that Antoninus Pius, in appointing him to Britain, was reverting to the same policy, as Severus was to do in this case, too. The other school, exemplified by Augustus in his eastern policy, by Domitian on the Danube, and by Hadrian and, later, Caracalla in Britain, was to maintain a cushion of friendly peoples, supported by subsidies and, if need be, by

[5] Cf. "Transactions," xx., 157 f., and xxi., 335 f.; "Proc. Soc. Ant. Scot.," lxxii., 275-347.

force of arms, beyond the formal frontier, which they treated as a base for offensive or defensive action, set well back from the limit of political influence and indirect control. No doubt the change of policy in any given province was to some extent affected by the activities of the frontier peoples themselves; but those cannot be regarded as a deciding factor; and, as Dr. Richmond has recently pointed out, Caracalla's withdrawal to the Hadrianic line, which was certainly voluntary, proved a brilliant success. Severus, with conquest and complete control as his targets, fought a long series of costly campaigns, and the enemy were still in the field when he died; Caracalla substituted the buffer-state system, concentrating his troops south of Cheviot and subsidising the tribes of the Lowlands—and the northern frontier experienced nearly a century of peace; and as the power of Rome itself diminished, and its garrisons in the outlying provinces fell in numbers and in fighting power, the buffer-states rose to be bulwarks of defence, and (as some modern scholars are inclined to suggest) they provided the basis for some continuity of tradition to span the Dark Ages; but the history of Cunedda and his Votadini, or of the Kingdom of Strathclyde, are subjects on which I hope that we shall have an opportunity of listening to specialists in that period; I must turn now to my proper subject, a survey of Dumfriesshire in Roman times.

Such a survey may most conveniently begin with the Antonine period, that is to say, with the occupation initiated by Lollius Urbicus *circa* 140. The framework of Roman control, as always, is provided by the road-system (cf. the sketch-map facing p. 138). One road runs up Annandale, on its way from Carlisle to the eastern end of the Antonine Wall (thus coresponding to the L.M.S. main line to Edinburgh), the first known site in Dumfriesshire on its line being Birrens, first excavated by James Barbour in 1895, and the scene of further digging by this Society in 1936 and 1937. Birrens was a fort, garrisoned by an infantry cohort, in this case a thousand strong; the next fort on this road was at Crawford, across the county boundary in Lanarkshire, but


LEGEND
FORT
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OTHER SITE
CERTAIN ROAD
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CRAWFORD
LITTLE CLYDE
REDSHAW BURN
DURISDEER
MILTON
RAEBURNFOOT
BARBROUGH MILL
DALMAKETHAR
GALLOBERRY
CARZIELD
TORWOOD
FAIRHOLM
BURNSWARK
GILNOCKIE
BIRRENS
NETHERBY
WARDLAW
CAERLAVEROCK
BOWNESS
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between it and Birrens was a series of small posts, which may for convenience be termed fortlets, at Fairholm near Lockerbie, Dalmakethar near Johnstonebridge, Milton near Lockerbie, and Redshaw Burn.[6] The road itself has been followed on the ground and from the air by Mr O. G. S. Crawford, and more recently by Dr. K. St. Joseph, who reports that "great lengths of the causeway remain, with the culverts, cuttings, embankments and bridge-approaches all intact."[7] Two branch-roads towards Nithsdale from this route are known: one from Crawford runs south and south-west through the Lowther Hills to Durisdeer, where another fortlet is known; this, like that at Milton, has been examined by Mr John Clarke, who was able to establish an Antonine date in each case, with two structural phases at Durisdeer at any rate; further south, a road has been noted running east and west, as if to connect the Fairholm fortlet on the Annandale road with the fort at Carzield on the Nith, excavated by this Society in 1939. Southward from Carzield we have the fort at Wardlaw, on the crest of the hill above Caerlaverock, proved to be Roman by Dr. St. Joseph's trial excavation in 1939; and at Caerlaverock itself, as you will all be aware, Mr Reid has recently made out a very strong case for supposing the existence of a Roman port,[8] structural remains of which may yet be recoverable. These last three sites—Caerlaverock, Wardlaw, and Carzield—make the existence of a Nithsdale trunk road more than a mere conjecture, though its traces have yet to be found on the ground; and the matter is clinched by Dr. St. Joseph's discovery of a fortlet at Barbrough Mill, south of Thornhill.

[6] Mr O. G. S. Crawford's search from the air suggested the existence of two further fortlets, at Bushel Beck near Moffat, and Rowantree Grains near the Beeftub, but Dr St. Joseph's ground survey makes their Roman origin doubtful. There are other sites in the county where excavation might settle similar cases of doubt (e.g., Birrens Hill, Carruthers), but I have thought it best to omit all such sites from the map (fig. 1) at the present juncture.

[7] "J. R. S.," xxix., 201.

[8] "Transactions," xxiii., p. 66.

In passing, I may note that a search for this road is one of the tasks which can best be undertaken by some of our members who live in Nithsdale. A consideration of geography, and of the structures on the Annandale road, will justify us in drawing some conclusions about the course and control system of the Nithsdale route. The Wellpath, on which the Durisdeer fortlet stands, has all the characteristics of a connecting link rather than a trunk road; we should expect the main road from Caerlaverock to run up Nithsdale itself, past Sanquhar, and across the watershed into Ayrshire; another fortlet may be postulated, somewhere a little north of Thornhill, and either a fortlet or perhaps rather a fort close to Sanquhar itself. These sites, too, must be sought for (they are hardly likely to be found by chance); and in days of continued petrol-rationing the man on the spot will have the best chance of finding them.

In the main part of our district, then, we see or may be justified in inferring two trunk routes, following the river lines of Annan and Nith, the first coming up overland from Carlisle, the second based on a harbour at Caerlaverock, and both serving to forward traffic northwards into the immediate hinterland of the Antonine Wall; the two routes form part of a single system, as the two connecting roads testify. Whether there was a westward extension of that system into Galloway remains to be seen; there we have a large area where there is urgent need for a fresh survey; at present there are no known Roman sites, but logic demands at least some control of the hill country of the Stewartry, and reconnaissance westwards from Carzield may well serve to show that the road from Fairholm did not stop short there, but continued across the Nith; in this case, too, some of our members must be well placed to do the hunting on the ground.

The position in Eskdale, though still obscure, is beginning to become clearer now that Dr. Richmond has been able to trace a road connection to the fortlet at Raeburnfoot from the valley of the Tweed; but it remains to be seen what links were provided from Raeburnfoot to the

Dumfriesshire plain. Two possibilities suggest themselves: a mountain road over Kilburn Hill to the Dryfe Water and so to Fairholm, and a road down the Esk, past Castle O'er, to Gilnockie and on towards Netherby. The position of the latter fort, across the Esk in Cumberland, is somewhat enigmatic; like Birrens, it was long retained as an outlier of Hadrian's Wall; but it is hard to believe that the road leading to it was not extended up Liddel Water (along what was to be the North British route to Edinburgh), at least during the period when the frontier lay far to the north; and a branch road past Langholm up the valley of the Esk seems a not unreasonable addition: the temporary camp at Gilnockie may serve to give us a starting point in our search for such a road. That camp, like the one on Torwood Moor near Lockerbie, presumably belongs to the earliest period of Roman operations in the district—if not to the time of active operations in the field, at least to the time when the main roads were being built, and the troops working on them required base camps to house them; there is another camp of the same order at Little Clyde, a few miles short of Crawford in Lanarkshire.

Two sites remain to be mentioned, to complete our survey of the known Roman anatomy of the district[9] The first is Gallaberry near Carzield, where Dr. St. Joseph has proved the Roman date of an earthwork, first spotted from the air by Mr Crawford; the true nature of it remains to be tested by further excavation; the second is Burnswark. I shall have occasion to say more about Burnswark later on, when I attempt to sum up the history of the interaction between Roman and native in Dumfriesshire; but at present I will content myself with pointing out that the earliest Roman structure there, the so-called "Redoubt" in the north-east angle of the south camp, seems to be just such a fortlet as those which we have been considering along the

[9] I omit isolated finds of Roman material, such as coins or pottery, and sites the true character and Roman attribution of which would require fuller speculative discussion than there is room for here.

Annandale road or on the Wellpath at Durisdeer; like them, it must belong to the Antonine period, so that there is no need for us to follow Alexander Gordon in dating the later siege-works—perhaps the most spectacular remains of the Roman Army to be found anywhere in Britain—to the time of Agricola.

So far we have been considering the bare anatomy of the Roman occupation of the district (and even in that there are still serious gaps in our knowledge). When we turn to individual sites, it will soon be seen how much there is still for us to learn. Some sites, indeed, present comparatively simple problems; such is Carzield on the Nith, where the excavations of 1939[10] revealed a cavalry fort, first occupied *circa* 140, with two structural periods which between them did not outlast the second century; indeed, as far as the pottery from that excavation is concerned, it need hardly carry the occupation much beyond A.D. 160, as a recent study of it by Mr John Gillam indicates; but the total yield of pottery was hardly great enough to provide a firm basis for historical conclusions, and it would be worth while returning to Carzield, with the specific object of adding to the pottery series rather than to the plan of structural remains. Such an excavation would be relatively simple for beginners, if concentrated in the ditches of the fort (always a fruitful hunting ground for cast-off rubbish), and it might well be recommended, for example, to a schoolmaster whose pupils are prepared to undertake some practical work. The fortlets, too, seem a fairly straightforward case, though more work will be needed before we can visualise their precise internal lay-out, and from it calculate the approximate size of their garrison; as to that, Mr Clarke's report in the Glasgow Society's *Transactions* will soon give us a firm basis for further study; in any case, all of them except Milton seem on present evidence, like Carzield, to lie on virgin sites, uncomplicated by underlying remains of the Flavian occupation. But Mr Clarke's interim report on his Milton excava-

10 "Transactions," xxii., 156 f.

tions, which will soon be in your hands,[11] shows what a geometrical progression of problems must be disentangled once we come upon a site which was occupied in both the Flavian and the Antonine periods; and Birrens itself looks like providing an extreme case of such complication.

James Barbour's pioneer excavations at Birrens,[12] aiming at recovering the complete anatomy of a Roman cohort-fort, incidentally produced evidence for two successive structural phases in its history; our second series of excavations there, in 1936 and 1937, came about because reflection on the general history of the north of Britain in Roman times suggested that there must have been a longer and more complicated sequence than Barbour had occasion to recognise, and, as you will remember, the main result of our work there was to show that there had been as many as five structural periods on that one site. But since 1937 the range of interest at Birrens has been greatly widened. In the summer of 1939 Mr O. G. S. Crawford made an air reconnaissance of Roman Scotland, in the course of which he discovered a series of new sites in Dumfriesshire, and confirmed the Roman date of others (for details, and for Mr Geoffrey Alington's admirable air photographs, it will be sufficient for me to refer you to Mr Crawford's article in *Antiquity*, xiii., 280 f.); and at Birrens he re-discovered the earthwork just west of the visible fort, which Roy had first recorded in the eighteenth century, and the plough had long obliterated from the sight of observers on the ground. Since 1939 Dr. St. Joseph has been able to distinguish half a dozen Roman sites of various kinds in the immediate vicinity, by careful study of a further series of air photographs; and it seems certain that once fresh excavation takes place there (and I am glad to say that there is a good prospect that Dr. St. Joseph and Dr. Richmond may be able to undertake the job before the present year is out), Birrens will prove to be one of the most varied and interesting groups of Roman works anywhere in Britain, with two successive forts

11 "Transactions," xxiv., 100 f.
12 "Transactions," 1895-1896, 158 f.

earlier than that which we have already examined, two or three temporary camps, and one or two other structures less easily classified before excavation. It is not my province to go into details now; we hope that Dr. St. Joseph himself will be able to speak to us about his discoveries before long; but there is a moral which I should wish to bring to your notice without more ado.

The advance in our knowledge of the anatomy of Roman Dumfriesshire has been brought about by a combination of factors: observation on the ground and from the air—including the taking of air photographs for subsequent study—reflection on old records and the discoveries recently made in the field, and finally excavation at selected sites. Little of the work has been highly technical—I mean, that anyone with the necessary leisure and inclination could have played a useful part in observation, reflection, and excavation alike; but in fact most of the workers concerned have come from far afield. It is all to the good that they should have come; but far more could have been learnt if they had been able to rely on a larger body of helpers living in Dumfriesshire itself. Even within the limited sphere of Roman structures, as we have seen, there is still much to be discovered, and much to be learnt about the sites whose existence has already been established. But when we turn to consider the native sites, the inadequacy of our resources is even more apparent; and yet a moment's consideration will serve to show that knowledge of the native sites is essential if we are to begin to understand the character and history of Dumfriesshire in Roman times: for the trunk roads and the posts along their course are, after all, only elements in the Romans' use of the district as a means of transit further north, and they can have relatively little to tell us about the local inhabitants with whom their garrisons had to deal—and yet the emergence, in later times, of the kingdom of Strathclyde is enough to show how vitally important the interrelation of Roman and native must have been, in the first and second centuries, for that kingdom to have developed in due course out of the buffer-state of the third and fourth. It is remark-

able, and indeed disquieting, to consider how little attention has been paid by this Society, or indeed any other body, to the native sites of Dumfriesshire; and yet we have a massive basis for research at our disposal, in the Royal Commission's volume on the historical monuments of the county. That volume is now, in many respects, out of date; even when it was published, it may not have been quite abreast of the highest contemporary standards, and when one compares it with the English Commission's 1936 volume on the county of Westmorland one can see how much more useful it might have been made by more detailed attention to the planning and description of the native forts and enclosures and other earthworks. But even so it contains a wealth of detail, conveniently collected together; and if it has deficiencies, the remedy is in our own hands, and those of such specialists in that field as we can persuade to join us in elucidating the native remains of the district: a fresh survey can hardly fail to add substantially to the number of sites, and bring greater definition of the various categories into which they fall. A necessary preliminary to field-work, let alone excavation, will be a general survey of the prehistory of the county, on the basis of all known sites and discoveries in Dumfriesshire itself, interpreted in the light of research on comparable sites elsewhere—such a survey as the late R. G. Collingwood provided for Cumberland and Westmorland nearly fifteen years ago; and it would be best if we could persuade a specialist in that field to provide it for us, and to guide our steps, particularly in the early stages of what to most of us will necessarily be a new branch of study. I myself, I need hardly add, have no such qualifications. But there are one or two observations which I feel justified in making, and which may serve to emphasise the connection of such native sites with my main theme of Dumfriesshire in *Roman* times.

In the first place, let me draw your attention to a recent paper by Dr. Gerhard Bersu, read to the Glasgow Society and printed in the *Journal* of the Manx Museum; it describes the main results of his excavation, during the war years, of three Celtic homesteads in the Isle of Man: all were of the

same structural type, the physical remains consisting of a circular, level area defined by a bank and ditch on the circumference, to make what antiquaries have been accustomed to term a ring-fort; but Dr. Bersu has been able to show that there was nothing defensive about such a structure; it represents the ground-plan and surrounding walls of the low, dome-shaped house and farmstead combined of an aristocratic Celtic community, and the associated finds enabled him to date the Manx examples of the type to the first three centuries of the present era. As he points out, the type is plentifully represented both in Ireland and in Scotland; and a glance through the Royal Commission's Dumfriesshire volume will be sufficient to show that it is well represented in our own area. In other words, many of the circular " forts " of the Ordnance Survey maps really represent the equivaalent, in native terms, of the " villas " of Roman Britain; and their existence testifies to the prevalence not of war but of peace, and orderly government, in the period to which they belong. But such a conclusion, likely though it may seem, obviously requires to be tested by excavation of one or two sample structuers of this kind in our own area, and both study of the Commission's volume, and considerable field-work, will be needed before the most useful sites for excavation can be selected.

Next, the close spacing of fortlets along the Annandale road, between Birrens and Crawford, invites speculation. At present, no fewer than five of them have been identified in a stretch of some thirty miles, and we cannot exclude the possibility that there may be more of them still to locate. So great a concentration of wayside posts is as yet unmatched on any of the trunk roads of the north of Britain, and it suggests at least the existence of unsettled conditions and a determination to ensure against interruption of the flow of traffic along that road. But whence was such interruption anticipated? From the inhabitants of Dumfriesshire? Or from the wild hills to the north and north-east? Without much spadework it would be idle for me to attempt to answer the question. But it may be noted that on any showing, the

Annandale road must come close to the dividing line between the two British tribes, the Selgovæ and the Novantæ, whose names are preserved for us by the geographer Ptolemy; it might seem possible that one reason for the close patrolling of the road was to keep two mutually hostile tribes from each others' throats. But in any case, there is a good reason for supposing that the native inhabitants of Dumfriesshire were not always in a state of hostility to Rome.

The vital evidence comes from Burnswark. It is hardly necessary for me to describe that frowning summit, with the remains of a fortified native town crowning it, to a Dumfriesshire audience; nor need I say much of the Roman works on either side of it, to north and south, for they were excavated by Mr Barbour and his report stands on record in our *Transactions*;[13] but I may draw attention in passing to the admirable air photographs reproduced in illustration of Mr Crawford's paper in *Antiquity*, and to R. G. Collingwood's clear and convincing interpretation of the structural remains, as evidence of a Roman siege of the native town.[14] I have referred already to the view, first put forward by Alexander Gordon and supported, with a slight modification, by Macdonald a quarter of a century ago, that the operations in question belonged to the time of Agricola, or shortly thereafter; that view was advanced by Gordon on general grounds, even though he had to admit that coins of Trajan (who only became emperor a dozen years after Agricola had left Britain) had been found there; and Macdonald supported it, with the modification that the operations might have been as late as the time of Trajan, but still in the early period described by him for convenience as "Agricolan," because of the discovery during Mr Barbour's excavations of a quantity of leaden sling-bullets which, Macdonald stated, the Roman army ceased to use about the beginning of the second century. But that assertion proves, on investigation, to have no evidential basis; it will be sufficient at present to note

[13] "Transactions," 1899-1900. 41 f.

[14] C. and W. A. and A. Soc. "Trans.," N.S., xxiv. 317 f.

that a sling-bullet of the same type has been found at Birdoswald on Hadrian's Wall, a site which on present evidence cannot well have been occupied before the early years of Hadrian; and in any case, among the pottery from Burnswark in the Dumfries Museum there are pieces which cannot well be earlier than the middle of the second century —and, as we have seen, the "Redoubt" incorporated in the north-east angle of the South Camp is one of the Antonine fortlets of the type which Mr John Clarke has been studying with the spade, and Mr Crawford identifying from the air. What has that fact to suggest to us? In the first place, Lollius Urbicus placed a small post, hardly large enough to hold a garrison of as many as fifty men, a little way down the steep hillside from the native town, itself the largest structure of the kind in the Dumfriesshire plain, and logically therefore the capital of the district (in passing, it may be suggested that the even more impressive hill town at Castle O'er in Eskdale should represent the capital of a separate tribe or sept, and that Eskdale therefore constituted a distinct district politically as well as geographically). So small a post can hardly have been planted there, unless the townsfolk were either friendly—or removed; and the sequel seems to show that they had not been removed. Its functions will no doubt have been in part the same as those of the other fortlets along that road; but we can hardly doubt that it had also to supervise the goings on in the town on the hill above it.

At some later date, we may continue, trouble broke out; Dumfriesshire, or at least the district of which Burnswark was the centre, rose in rebellion, or joined with neighbouring peoples in revolt against Rome; the fortlet must soon have been overwhelmed, and many other Roman posts in the district—it is tempting to associate one of the overthrows of Birrens, for example, with this episode. But a large Roman field army was before long on the scene; the rebels were driven back into Burnswark and closely invested there, though whether the end was starvation or a massed assault —or capitulation and forgiveness—the glass is too dark for

us to discern. As to the date of the episode, evidence is still to seek; I believe that further excavation at Burnswark might well produce it; but it is tempting to remember the inscription from Birrens,[15] which records re-building there in the governorship of Julius Verus, *circa* A.D. 158, and the altar from Kirkandrews on the Eden,[16] set up by a commander of the Sixth Legion *ob res trans vallum prospere gestas* —to commemorate successful operations north of the Wall; that altar is undated, and though we seem to meet its dedicator, eight or ten years later in his career, as consular governor of Upper Germany on an altar from Stockstadt,[17] there, too, there is no date; we must content ourselves with noting that it has been assigned to the second half of the second century by Ritterling (not an incompetent judge). In any case, Birrens was re-built, and its occupation continued, though with more than one break, into the first half of the fourth century; and by then the natives of the Dumfriesshire plain must have been well on the way to their transformation into the loyal people of a buffer-state.

That, I think, is as far as I should attempt to carry my survey this evening. In some respects I may have been able to present a more detailed picture than Macdonald could attempt in 1920; but at the same time I have had to draw your attention to the existence of immeasurably more outstanding problems than seemed to require tackling at that date. One of the difficulties of archæology is its tendency to produce two or three new problems for every one which it solves; for that reason, its progress is like that of a snowball, and more research and more researchers are needed every year, if that progress is to be maintained. But the results obtained in recent years—by Mr Crawford, Mr John Clarke, and Dr. St. Joseph in particular—are enough to show what exciting prospects are in store for us when active work is resumed. This Society must inevitably play a part, and a leading part, in the co-operative effort which alone can ensure fullest value from such work.

15 "Ephemeris Epigraphica," ix., 1230.
16 "C.I.L.," vii., 940.
17 "C.I.L.," xiii., 6638.

APPENDIX: BIBLIOGRAPHICAL NOTE.

It may be convenient to give a short list of works bearing on the subjects considered in the foregoing paper; the list makes no pretence whatever to completeness, but I include those items which seem to me most likely to prove stimulating to readers of these *Transactions* :

1. Royal Commission on the Ancient and Historical Monuments of Scotland, *County of Dumfries*, 1920. (Invaluable as a basis for future field-work.)

2. R. G. Collingwood : *An Introduction to the Prehistory of Cumberland, Westmorland and Lancashire north of the Sands* (C. & W. A. & A. Soc. *Transactions*, N.S., xxxiii., 163-200), 1933. (Includes a first-rate outline of a policy of research on native sites, and a useful short bibliography of recent works on Prehistory.)

3. I. A. Richmond : *The Romans in Redesdale* (*Northumberland County History*, xv., 63-159), 1940. (Includes an admirable survey of the relations between Roman and native in the territory north of Hadrian's Wall.)

4. O. G. S. Crawford : *Air Reconnaissance of Roman Scotland* (*Antiquity*, xiii., 280-292), 1939.

5. I. A. Richmond : *Recent Discoveries in Roman Britain from the Air and in the Field* (*Journal of Roman Studies*, xxxiii., 45-54), 1943.

6. G. Bersu : *Celtic Homesteads in the Isle of Man* (overprint from *Journal of the Manx Museum*, v., 6 pp. and one plate), 1946.

28th MARCH, 1947.

Chairman—The PRESIDENT.

Bird Ringing.

An Account of the Methods of Catching and Marking Birds, with some observations on their Migration, Dispersal, and Age.

By Lord DAVID STUART, M.B.O.U., F.S.A.Scot.

Bird ringing means the marking of wild birds with a light metal ring round one of their legs, the fourfold object being to collect scientific data by which we can work out their Migrations, Dispersal, and Age; and also for experimental purposes, such as Homing Tests, and the study of the behaviour of individual birds: but I shall discuss these four points in some detail later on, and first of all I should like to give you some idea of how the ringing is done and how the marking scheme is organised.

The first noteworthy attempt at marking birds in Britain was made by Lord William Percy, who began ringing Woodcock in Northumberland in 1890, but the first full-scale scientific scheme to attempt to mark all types of birds with addressed and numbered rings was made in Denmark in 1899. This was followed by schemes in Germany and Hungary. While in 1909 schemes were begun in this country by Aberdeen University and by the late Mr H. F. Witherby in connection with the magazine *British Birds*, of which he was editor. The Aberdeen scheme no longer exists, but the *British Birds* Marking Scheme continued until 1937, when it was handed over to a Bird-Ringing Committee appointed by the British Trust for Ornithology, and its headquarters are now at the British Museum (Natural History). They now issue the rings and keep the records concerning the scheme, though the magazine *British Birds* continues the publication of the ringing results.

The rings are made of aluminium and are issued in seven different sizes to fit the different species. They are inscribed "Inform British Museum Nat: Hist: London" and also bear a number. They are issued only to authorised ringers, of whom there are about 150, which number includes

several Schools, Natural History Societies, and Bird Observatories.

Since the scheme was started in 1909, about 735,000 birds have been ringed, and some very interesting results have been obtained.

As soon as a bird has been marked, the ringer enters details of the ring and bird on a special schedule card, entering the number of the ring, the date, the name of the bird, place where ringed, then details as to whether it was trapped or marked as a nestling, stating the sex if known, and giving the ring numbers of others of the same brood, and finally the ringer's name These cards are sent to the British Museum at the end of each ringing year (which is October).

The number of birds ringed increased yearly from the beginning of the scheme until 1939, when very nearly 56,000 birds were marked. Then came the war and ringing activities were severely curtailed; not only were many of the ringers on national service, but rings, which, as I have said, are made of aluminium, were available in only very small quantities; in addition to these difficulties, bird observatories, such as that at the Isle of May, were requisitioned, and accordingly trapping was impossible. Nevertheless a limited amount of ringing was carried on all through the war. It reached its lowest ebb in 1941, when only 4570 birds were marked. The position was much the same the following year, but since then the totals have been increasing again. Last year the ringing stations in the Isle of May, Fair Isle, and Skokholm were re-opened, and the supply of rings became much easier, though the demand still exceeds the supply.

A noteworthy feature of ringing activities is that ever since the start of the scheme the proportion of trapped birds to nestling birds marked has been gradually increasing, until just before the war more trapped birds than nestlings were marked. This will tend to raise the percentage of recoveries, as the mortality of nestlings must be much greater than among adults.

At first sight it might seem rather a futile activity putting rings on birds, but in point of fact it is not, because a small percentage of those marked are recovered later and give scientific data which in time amount to sufficient number for analysis of each species concerned. Recoveries very from .3 per cent. for the Common Sandpiper, to 21.4 per cent. for Cormorants. In general, the returns for small birds such as Willow Warbler and Lesser Redpolls are very small, though the larger birds, such as Woodcock and birds of prey which are extensively shot, show returns of from 7 to 21 per cent. Percentage of returns would probably be larger if people finding rings would take the trouble to report them; it is believed that quite a lot are found and not reported through the ignorance or apathy on the part of the finder. I always make a point of never passing a dead bird without looking to see if it has been ringed; I may add that I have never found a marked one yet, though I am always hoping to do so.

Although percentages of returns are small, the trouble of ringing is well worth while. Take, for instance, the case of the Sandwich Tern with a recovery of 1.8 per cent.; this may seem very small, but 321 have been found and some remarkable results have been achieved, there being many recoveries from Angola, Gold Coast, Ivory Coast, Senegal, and the Congo, while seven have actually rounded the Cape and been taken as far north again as Durban.

Take also the case of the Swallow with a return of only 0.9 per cent., yet many have been found wintering in South Africa, and it has been shown that they almost invariably return to nest in the same place each summer, while the yearlings often return to nest in the neighbourhood in which they were bred.

When you do ring a bird you never know what your luck will be in it being found again somewhere. Only two Turnstones have been marked since the beginning of the ringing scheme, and one of these which was ringed in Co. Antrim was later recovered in N.-W. Greenland, on the very edge of its known breeding area!

Birds caught for ringing purposes, other than those marked as nestlings, are taken by trapping, netting and snaring. Before the Industrial Revolution, the art of catching birds was well known and extensively practised, but the primary object in taking birds was for eating purposes, and it did not matter to the catchers whether the birds were hurt or not. Consequently, the majority were taken in snares made of horsehair; with bird-lime, and in nets; traps were hardly used except in the case of duck decoys and for catching cage-birds.

As a result of the Industrial Revolution, the art practically died out, though professional bird-catchers who specialised in taking cage-birds carried on into our own times, but recent legislation has put an end to their activities. The law at present is that you may catch birds for yourself, but you may not catch them for sale.

It is, of course, essential that birds caught for ringing must be secured by a harmless method. Therefore traps are used now more than any other way. First of all, there are the large immovable traps like those on the Isle of May and Skokholm, which are modelled on the Heligoland Bird Observatory Traps, used for catching migrants. Then there are the much smaller but fixed traps such as are worked by the Oxford Ornithological Society and private individuals in different parts of the country.

Into this category also come the duck decoys. There are still two or three working in England, and one in Wales where a large number of birds are ringed. They are elaborate and very expensive to make and maintain, and it is unlikely any new ones will be made in the future.

Practically all these cage traps, both the fixed and movable ones, are now made of wire netting, and the entrances are funnel-shaped, that is to say, are wide at the mouth and get narrower as they go into the trap. The method of funnel entrance trapping can be adapted for different birds; it can be on ground level for ground feeding birds; on top of the cage for perching birds that seldom alight on the ground; or it can be in water for taking duck and water-

hens. Very few birds seem to find their way out through the funnel once they have gone in by it.

There are also automatic traps, the entrance to which is closed by the bird entering it. These are very successful, but the drawback to them is that only one bird can be taken at a time, though you can have a trap with several compartments.

Another type of automatic trap is one with two compartments, in one of which is put a call-bird, the other being set to catch any bird that enters it. This type is extensively used for taking Bullfinches in the spring. At that time of year the cocks are very pugnacious, and when a wild bird hears a call-bird of the same species calling in the trap, it flies in to fight it and gets caught itself.

The net most commonly used for taking birds is probably the clap-net, which is of very ancient origin and does not seem to have been improved upon since the times of the Pharaohs, as it is depicted in ancient Egyptian carvings. It is very simple to work and carry about, and by varying the size of the net and the mesh, it can be used for any size of bird from Flamingoes and Geese to the smallest Finches. This is the net which was used by our professional bird-catchers. They can be used singly or in pairs, and are probably most effective when used in conjunction with call-birds.

A lot of ringers have been very successful at netting birds at their roosts at night, and have adopted the method for taking different birds such as Chaffinches, Redwings, and Gulls.

There are quite a variety of spring nets on the market. These are just small nets operated by a spring which throws them over the bird automatically or by being released by a long string pulled by the fowler.

Under the category of netting I think must be included all those birds caught at Lighthouses when on migration. On suitable nights, that is to say when it is misty and visibility is bad, considerable numbers may be taken as they are dazzled by the light and fly against the lantern.

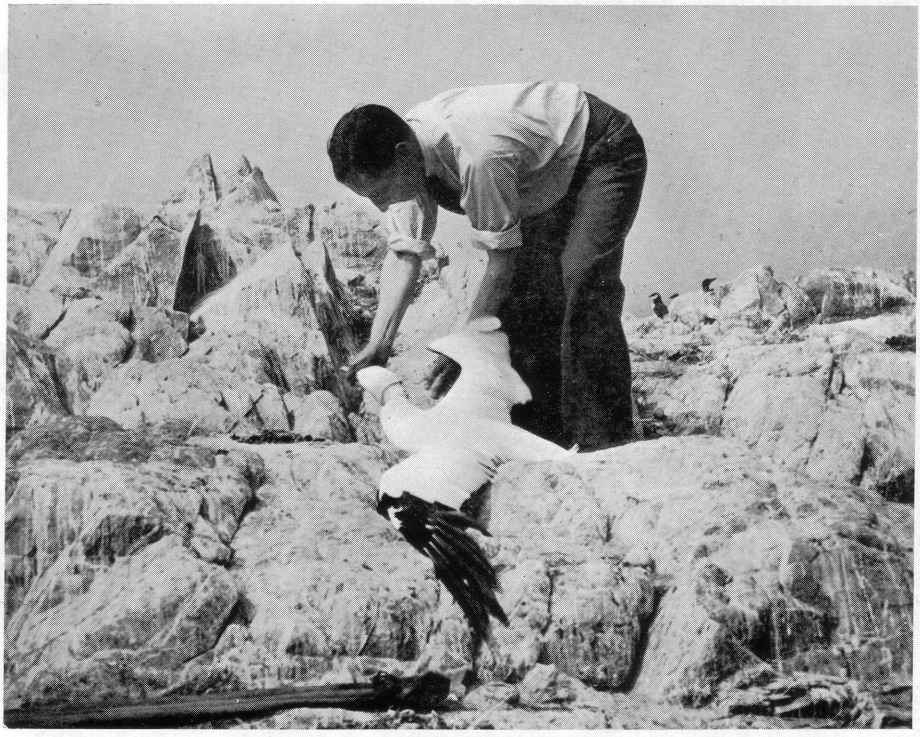
During the nesting season quite a lot of birds can be taken in a butterfly net or a landing-net, provided the handle is long enough. I have caught Willow Warblers in a butterfly net as they left the nest, and have done the same thing with a Mallard nesting in heather. The people of the Faroe Islands catch Puffins in things like landing-nets, and I am going to try it myself next time I am at a Puffin breeding colony.

Snaring birds is probably the least important way of catching them in this country as regards the number taken; nevertheless, it is a valuable method and is used especially to catch adult Gannets. In Hungary a lot of ground nesting birds like Oystercatchers and Lapwing are caught in horse-hair snares placed in their nests, but I do not think the method has been used much in this country.

A very useful snare is the St. Kilda fowling-rod. This is a rod 12 or 13 feet long with a snare at the end, and was used by the St. Kildans for catching Fulmars, Gannets, and Puffins. I learnt its use in St. Kilda, where I went down the cliff of Conachair, roped between two of the Islanders and caught Fulmars. Nothing could be easier than catching Gannets and Fulmars with it; they just sit on their nests and let you slip the snare over their heads; though I believe catching Puffins with it is not quite so easy, but I never tried my hand at it. All the time the St. Kildans were snaring, they kept on talking to the birds in order to keep them quiet, and, as it were, to reassure them that no harm was really coming to them. What they said had no meaning, but they kept on repeating the same sounds, much in the same way as a groom makes a noise through his lips when he is grooming a horse. Personally, I found that speaking to the birds made not the slightest difference as a help to catching them, but the St. Kildans attached a lot of importance to it, especially when catching Puffins, and thought it was all wrong of me to snare in silence and not make the prescribed noises which they wanted me to learn.

There is a modern and improved version of this rod, which, instead of having a snare at the end, has a wire

1. Author snaring Gannet. Big Scar, Luce Bay.



2. Author ringing Gannet, Big Scar, Luce Bay.

[Photos by Rev. J. M. M'William.

crook which is slipped over the bird's leg between the foot and knee and thereby secures it. For taking Gannets it need only be five or six feet long and can be made of fencing wire, but Puffins need a rod twelve to fifteen feet long.

The expenses of the Marking Scheme are borne mainly by the ringers themselves, who pay for the rings at the rate of 7s per 100 (during the war they went up to 12s per 100); it also receives subscriptions from individuals and occasional legacies, as well as a subvention from the magazine *British Birds*.

In several foreign countries their marking schemes are financed by the government. This was the case in Germany before the war, where their department of agriculture maintained the bird ringing station on Heligoland. In North America since 1920 bird ringing, or banding, as they call it, has been organised on a very large scale with the support of the U.S. Biological Survey. They have whole series of traps along the Eastern side of the country, and it has been found that many birds adopt what is called the "trap habit"; that is to say, they persistently re-enter the traps, knowing they can get food or water in them.

The larger traps, such as the Isle of May and Skokholm ones, are made and kept in repair by ornithological societies. The small movable cage traps are certainly expensive and in these days difficult to get, but fortunately it is quite easy to make traps at home at a reasonable cost with sticks and wire netting.

Clapnets are cheap, and, although netting of the finer meshes is not easy to get at present, it will probably become quite cheap and easy to get again in the future.

Having now spoken of the methods of catching and marking birds, I propose to say something about the results ringing has achieved in helping to study the migration, dispersal, and age of birds.

I am not going to enter upon a long dissertation on migration, which is a very complicated subject and a study in itself, nor am I going to speak of it in general, but confine my remarks to the way it affects us in the British Isles.

In the first place, it may be remarked that there are several different types of migration. There are the long and spectacular journeys of those birds which breed here and winter in Africa, and the birds that come here in winter and leave in the spring to nest in Northern Europe, Spitzbergen, Iceland, Greenland, and other places. Then there are purely local movements of birds which breed in mountains and come down to low ground in winter; and the dispersal in all directions, after the breeding season, of birds like Herring Gulls and Song Thrushes: these, although they are not migrations along well-known routes to particular destinations, are nevertheless seasonal movements, and are, in fact, a type of migration. Lastly, there is the case of the Great Shearwater which is known to nest only in the Tristan da Cunha group of islands in the South Atlantic and which spends the summer in the North Atlantic, returning to breed in Tristan da Cunha during our winter, which is, of course, summer there.

Although the seasonal coming and going of birds is more noticeable than in other animals, it is by no means confined to them. Primitive man, before he took to agriculture, lived a nomadic life, carrying out regular seasonal movements; even to this day the Laplanders carry out a seasonal migration, following the movements of the herds of reindeer on which they are dependent. Regular migrations are made, amongst other animals, by seals, whales, basking sharks, salmon, and eels.

It is easy enough, by looking through the ringing returns, to pick out spectacular flights made by birds. Eight Kittiwakes have crossed the Atlantic; two Puffins, marked by my brother in St. Kilda, were recovered at Labrador three and four months later; and a Great Skua ringed in Shetland was got at Boston, U.S.A., seven months later.

A very interesting trans-Atlantic crossing of a land bird is the case of a Lapwing which was ringed in Cumberland and which was one of a flock of these birds which appeared in Newfoundland in December, 1927. The Lapwing is only a very rare wanderer to North America.

These spectacular records may be interesting in themselves, and catch the public fancy; but it is by the accumulation and analysis of the ordinary data that we are working out the movements of different species. For instance, ringing has proved what had so long been suspected by ornithologists, that, in general, birds return to nest in the same place every year; though this statement must be taken with some caution, as it does not apply to all birds. It holds good for Swallows, Curlews, and Redshanks, but does not apply to Ducks and Woodcock. Thus, a Woodcock ringed as a nestling in Kirkcudbright, was got near Moscow the following May, where it was presumably nesting. This breeding of birds away from the district in which they were hatched has been termed *abmigration*.

Up to the end of the eighteenth century and even later, strange theories were held regarding what happened to our summer migrants during the winter months. Martin, in his *Description of the Western Isles*, written in 1703. records the belief that the Corncrake spent the winter in ice.

Even men like Dr. Johnson believed that Swallows spent the winter in a torpid condition below the water of lakes and rivers, and it was not until 1912 that the first British ringed Swallow was recovered in South Africa, giving definite proof of where our birds winter.

Ringing is helping to elucidate such controversial points as whether birds migrate along regular flight lines or on a broad front. In general, I think it may be said that they move on a broad front though they do tend to be more plentiful in some places than in others, owing to geographical conditions. That individuals do not always follow identical routes seems to be proved by the fact that out of 104,000 migrants ringed at Heligoland, only six have been recovered at the same place in subsequent seasons, whereas 12 have been recovered elsewhere.

Modern experiments are continually being carried on to try to find the biological reasons for migration. The various organs of the body have been critically examined by dissection, and birds have been subjected in captivity to

tests of artificial sunlight altering the length of the day to see if it would induce a desire to migrate or alter the growth of certain internal organs, but nothing certain has yet come from these experiments; though the weight of a bird seems to have something to do with its preparedness to migrate, and at the Heligoland Observatory the weight of every bird was recorded.

An entirely new method of enquiry into the subject has been opened by the use of Radar to follow the flight of birds, and by its means it may be possible to get data, not only of the line of flight, but also of its height and speed.

When we come to consider the dispersal of birds after the breeding season, it is impossible to make a clear-cut distinction between those species which scatter in all directions and those which migrate in a definite direction, for some birds are partial migrants.

Ringing has shown that Cormorants scatter in all directions (but I shall have more to say about them later on), while Gannets are definite migrants in their first year when they move much further south than the adult birds, but as they grow older they gradually lose their migratory instinct, and after their third year they merely disperse.

In the study of the dispersal, distribution, and breeding biology of individual birds, there has been a recent and exceedingly interesting innovation in marking birds with coloured plastic rings. They are made in a whole variety of colours, so by the use of several rings at a time, a large number of birds can be marked and recognised on sight without being re-trapped.

Mr David Lack used them for his study of the Robin, which resulted in his intensely interesting book, *The life of the Robin*, in which he dealt with all the aspects of that bird's life and was able to work out the size of the territories they held, how long they lived, and so on. It is no exaggeration to say that it would have been impossible for him to have written the book without the help of these rings.

An interesting discovery he made was that the Robin, which is a partial migrant, seldom migrates once it has

acquired a territory, and that whereas one individual may move as much as two or three hundred miles south in the winter, another individual may never move during the whole of its life more than 300 yards from the spot where it was born.

The use of these coloured rings is increasing rapidly, and they are now available in suitable sizes for all different birds, and I believe they will be extensively used in the future.

Like many other people, I feed the birds round my house, and I have got lots of them marked with coloured rings, and it is most amusing to get to know them individually.

Various attempts have been made to work out by the ringing returns how long birds live, what is their expectation of life at hatching and in each subsequent year of life; but bird ringing is still, as it were, in its infancy, and sufficient data is not yet available for the results to be reliable, and my view is that the figures arrived at should be taken with reserve. However, some useful facts have been revealed by these investigations. One is that captive birds (provided they are kept in good conditions) live longer than wild ones. Another is that there is an appalling mortality during the first six months of life; between 60 and 80 per cent. dying during their first year.

Not many of the smaller birds live more than two years, though their potential life may be 10 to 12 years. The larger birds live longer; the oldest British ringed bird recorded is a Cormorant which was shot in its nineteenth year.

In trying to estimate the length of life by ringing returns, it must be borne in mind that only a small percentage of those marked are recovered, so that we know only part of the story; also it has been proved in the case of Shearwaters that the rings become worn and fall off, and this probably happens with other birds as well, especially water birds.

Our information about the smaller birds is more reliable than for the large ones, and the figures for three of our

common birds kept in captivity and in a wild state are :

Species.	Greatest age in captivity.	Greatest age in wild state.	Average age in wild state.
Song Thrush	17 years	9 years	1½ years
Blackbird	20 years	10 years	1¾ years
Robin	20 years	11 years	1—1¼ years

The average lives may seem very short to us, but we should remember that the activities and reactions of birds are much faster than ours. They have a much higher temperature, and a Robin's pulse rate has been estimated as fourteen times faster than that of man; therefore, as David Lack has written : " Reckoned in terms of heart-beats, an eleven-year-old Robin is equivalent to a man of 150 years old."

A very obvious use of ringing for experimental purposes is for testing a bird's homing capabilities and speed of flight. A sense of orientation, a homing instinct, or whatever you wish to call it, is possessed by most, if not all, animals in varying degrees. It seems to be just as highly developed in seals as in birds, for both breed on small and isolated oceanic islands. Even toads have it, for it has been shown by marking toads and removing them as far as a quarter of a mile and releasing them in the evening that they will be back at their ponds in the morning.

Of course, lots of experiments have been carried out with homing pigeons, but the comparison between them and wild birds is not very reliable, because homing pigeons have to be trained, whereas wild birds can perform the most amazing homing flights without any training at all.

Mr R. M. Lochly has done a lot of experiments with Manx Shearwaters on the island of Skokholm off the Pembroke coast. He has shown that individual Shearwaters have the faculty of returning not only to the island, but to the same nesting burrow in successive years. The return to the nesting burrow is the more remarkable when it is remembered that the birds only go in and out at night and that a bird can drop down at the very mouth of its own burrow on a pitch dark night in surroundings which are

honeycombed with other burrows. He has also proved by ringing that the parent birds brood in turn. One is often away for five or six days at a time, and when they change over the one that was brooding will stay at sea for five or six days in its turn. After the chick is hatched, it is fed for a certain length of time and then deserted, whereupon it has to find its own way to the sea and what we call " fish for itself " from then on.

The known range of the Skokholm Shearwaters, according to ringing returns, is the Bay of Biscay, half the English Channel, and half the Irish Sea. Now Lochly took or sent Shearwaters to various points outside their known range and released them, and in the majority of cases they found their way back. One was released at Venice, which is 930 miles direct overland route, or 3700 miles by the shortest sea route; which way the bird came back is not known, but it was home in 14 days. Several were released inland in England and they got home too; and Shearwaters are believed never to fly inland except when storm-driven. Another which he took to the Faroe Islands found its way back, while a Shearwater he took from Faroe and released at Skokholm performed the journey successfully in the opposite direction.

Any amount of these sort of experiments have been tried abroad with Swallows, Hooded Crows, Storks, and other birds, but the solution of how they orientate themselves or find their way is still unsolved. Up to a point I think it is an hereditary faculty, because if you take the case of the Great Shearwater, for instance, which, as I have mentioned before, nests only in the Tristan da Cunha Islands, it is probable that some do not find their way back to the islands at the breeding season, and as they failed to get back, it is impossible for them to breed and consequently leave no offspring. Therefore it is only the ones which orienate themselves correctly which breed and pass on to their young an inborn tendency to return to the same place to breed.

The same applies to any migratory breed, say the Willow Warbler or the Swallow, for if an individual wanders

outside the normal geographical range of its species, it is not likely to find a mate and therefore cannot breed.

By observation and the use of scientific apparatus we may one day explain how animals orientate themselves, but at the present time we simply do not know. The homing faculty is a sense quite unknown to man; whether he ever possessed it is another question.

Before concluding, I should like to speak about a very interesting breeding colony of Cormorants at Mochrum, Wigtownshire, and tell you about some of the results of ringing nestlings there.

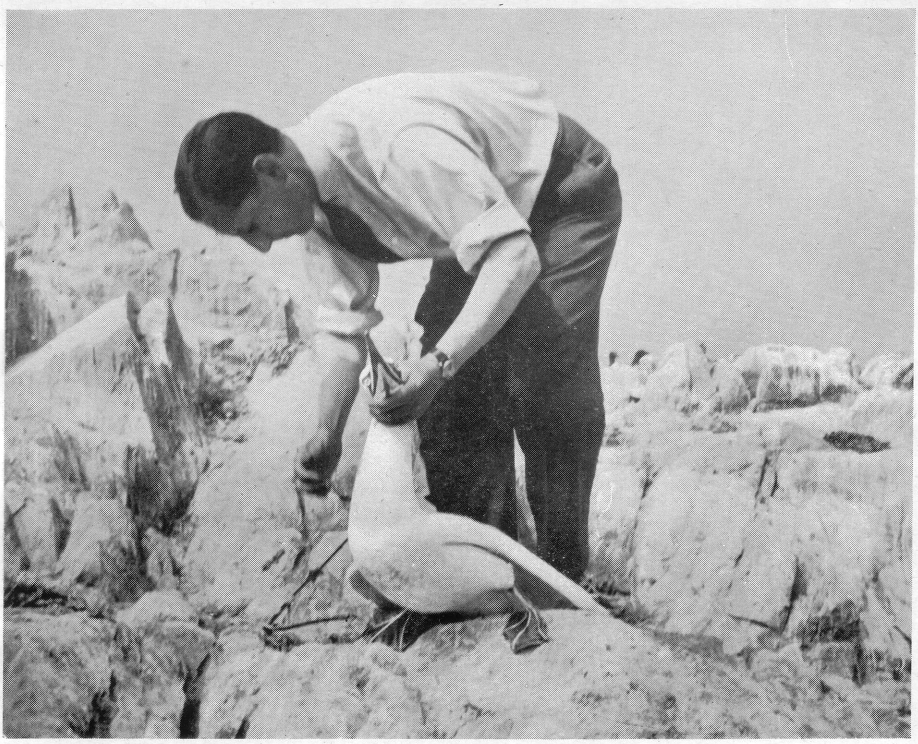
The colony is situated on low rocky islands on the Castle Loch, and is one of the only two inland breeding sites of Cormorants in Britain (the other is on an inland cliff in North Wales), and there is evidence in an old estate map in my possession that they were nesting there in 1790.

There is also an almost undoubted reference to the Cormorants in the *Description of the Sheriffdom of Wigtown*, by Sir Andrew Agnew of Lochnaw and David Dunbar of Baldoon, written in 1663, where it is stated: "In the loch of Mochrome there are bred a number of herons and wild geese wt. other fowls, qron stands ye Laird of Mochrome's house."

Another Sir Andrew Agnew has suggested that Gargrie, the name of the moor between the Castle Loch and Mochrum Loch, is derived from "Gairg," the Celtic for Cormorant. So it would seem that the Cormorants have been breeding at Mochrum for a very long time.

The yearly average of breeding birds is from 200-220 pairs, which, allowing for each pair rearing three young, would mean about 600 nestlings leaving the colony each year.

Between 1919 and 1939 the late J. G. Gordon of Corsmalzie, my brother, and myself have marked some 820 of these nestlings, which have yielded 172 recoveries. These recoveries have shown that 70.34 per cent. of the birds die in their first year of life, and that of these 67 per cent. are shot, the heaviest mortality being in the first six months after leaving the nest.



3. Author ringing a Gannet.

4. Author ringing Cormorants, Castle Loch, Wigtownshire.

[Photos by Rev. J. M. M'William.

The birds appear to disperse all round the coast of Britain, except north of the Caledonian Canal, above which none has been recovered as yet. A great many cross over to the Firth of Forth, and from birds being recorded in the Clyde, Loch Lomond, Alloa, Loch Leven, and other places in that neighbourhood, it is my belief that that is the general route by which they move from the West to the East coast and vice versa.

A large number have been recovered in the Brittany peninsula of France, mostly in Finisterre and Ushant, while quite a lot have been got in Spain and Portugal.

One of the most remarkable recoveries was a bird which was shot at Elvas in the River Guadiana in Southern Portugal, 144 days after being ringed, the shortest possible sea route being 1600 miles, or by following the coast line, some 2500 miles.

At the beginning of this talk I gave the four reasons why birds are ringed, the four objectives of the scheme, but for most of us who do it there are other motives than that. The study of birds is a hobby, and it amuses us to mark them; in many cases it may be called a sport. For if by sport you mean, as I do, the pitting of one's skill and intelligence against the wariness and instinct of an animal, then the taking of wild birds for ringing purposes is often sport, and it has the added attraction that you catch them by harmless methods and do not take their lives.

Yet for many of us there is a still deeper underlying motive than any of those so far mentioned. That great naturalist, the late T. A. Coward, wrote concerning the migration of birds: "Our philosophy must not be a stagnant weed-grown pond, but a living stream of thought. If we are baffled we are not conquered, for we can watch and ponder, work and record, and each seemingly trivial but faithful observation may be a stepping-stone to higher truths."

So by ringing we are adding step by step to our knowledge of birds and we are ever seeking, working, and striving towards the solution of the mysteries of the Universe and the ultimate truth.

11th APRIL, 1947.

Chairman—The PRESIDENT.

Some More Secrets of Nature.

By Dr. C. TIERNEY.

This was a further contribution of outstanding interest by a lecturer already well known to the Society.

The Inglistoun Mote.[1]

By R. C. REID.

These earthworks belong to the period when pre-history was vanishing and documented history in Scotland had scarcely begun. Wherever we find a mote, there we have the hallmark of the Anglo-Norman. To appreciate what they stand for, let us glance at the last period of pre-history that preceded the advent of Feudalism.

Before the Anglo-Norman intrusion the natives of the late Iron Age lived in circular enclosures, fortified by a ditch and a rampart probably crowned with a palisade, or a ditch and drystone wall—sometimes vitrified. Our hilltops display many of them. Lower down in the valleys we meet with rather smaller editions of apparently the same type. Now it has been assumed in the past that these all belonged to the same period and the same people. But since 1940 that view has been modified. An eminent German archæologist with a European reputation and some Jewish blood—one Professor Bersu—fled to this country just before the war and at its outbreak was interned in the Isle of Man pending what is known as "screening." He was set at liberty but confined to the island. Here he proceeded to make some excavations, later followed by others in Scotland for St. Andrews University. The result is that we are now

[1] Known also as the Jarbruch Mote from its close vicinity to that farm and also the Bow Butts of Ingliston. It was Grose (1789) who first suggested in print that the site was "an arena for the practise of archery."

on the verge of a real classification of these hill forts, into hill towns of regular occupation, hill forts for temporary refuge such as abound in Dumfriesshire, and low-lying enclosures which are not forts at all but the normal residences of those who, in time of danger, fled to the hill forts.

Many of these low-lying enclosures were occupied by apparently one family—the post holes of all the internal structures having been found—some were occupied by more than one family, and the occupation period ran up to and into the mediæval period. For the first time an original classification of all these pre-history forts can now be essayed, and Scottish archæologists look to Dr. Bersu to provide it in due time. Now the natives of our area at the beginning of the 12th century were of mixed origin. War and invasion had thinned out what population there was. They had been conquered by the Angles, many of whom had settled here. They had been overrun, in so far as Annandale was concerned, by the Danes, which meant complete devastation and slaughter. For over a century Carlisle had been a city of the dead. The Anglian settlement in Annandale would appear to have been wiped out, and their monastery at Hoddam devastated; and when the first Brus in 1124 was given a grant of Annandale it must have been largely waste and uninhabited country. What happened in Glencairn we do not know. But conditions cannot have been far different. All that we know is that it was part of the wide domain of a native chieftain known as Dunegal of Strathnid.

The natives then lived in these forts and enclosures, and Dr. Bersu has shown by excavation that the smallest enclosures often contained only one hut; others had more huts, but even in the larger enclosures the huts were never numerous. The population therefore must have been very thin. Another deduction to be drawn from his work is corroboration of what we thought must have been the social condition of the occupants. They lived under headmen or petty chiefs, or more often just the head of a family. They must have held many things in common, as

is usual in tribal societies. However important he may have felt, the petty chief lived amongst his people and was one of them, and the only visible sign of chieftainship was perhaps that he inhabited a hut just a bit bigger than his fellows. He shared their sorrows and their joys, their food, and the weapons of the chase and of war. They were Christians, for there is at least one memorial stone in Glencairn of Anglian workmanship of the late 11th century. But it was not an organised church. The parochial system had not been invented in Scotland, and, though there had been some Anglian Bishoprics in Galloway, that church organisation had long before crumbled in face of the inroads of the Norse and of Scots ejected from Dalriada. A Bishop without a diocese was unthinkable in those conditions.

Such was the social structure that was to be completely shattered by the advent of the Anglo-Normans, and this Mote is the living and lasting symbol of their rule.

Compare for a moment this earthwork with the native enclosures of which I have spoken. Their entrenchments are small and insignificant to an earthwork like this. Our local forts may be said to denote a military community. But this Mote signifies a military power a power known and feared throughout Christendom. The native fort was a stone or earth rampart and ditch surrounding a defensive site. This is a hillock fashioned by the hand of man into the equivalent of a castle. Indeed, many mote hills were later crowned with stone castles, as at Hermitage and perhaps Torthorwald. At Ingliston, as at Urr, a natural hillock has been adapted by levelling the summit and steeply scarping the sides, the whole being surrounded by a ditch. Round the summit must have run a stockade, for there is no sign of a parapet as at Urr. At the west-south-west extremity of the hillock a mote hill has been formed by the erection of an artificial or partly artificial mound, itself also surrounded by a ditch and protected by another palisade upon its summit. On the top stood a wooden house or tower, access to which was by means of a ladder. Here the new Anglo-Norman owner of the lordship dwelt. The

summit of the Mote was therefore divided into two separately defended sections, the mote hill and the base court. In the latter dwelt the followers or armed retainers of the Anglo-Norman, who himself was perched up on the mote hill. An assailant had first to capture the base court before he could attack the mote hill. In this instance, owing to the shape of the hillock, the base court is L-shaped and its north-west end terminates in a V-shaped ditch, 36 feet wide and 11 feet deep, which cuts off the base court from the extremity of the hillock. The whole construction is known as a Mote, derived from the Norman word "Motte," and its two parts are known as the mote hill and the base court.

But it was not till half a century after the Conquest that the Normans infiltrated into Scotland and began to erect motes here, and Annan Mote about 1124 must have been one of the first. Some day, perhaps, this Society will visit that Mote, and I will tell you a great deal more about Motes and Feudalism in Scotland, especially with regard to the administration and finance of the Anglo-Norman Lordship. Till then you must rest satisfied with this brief statement.

All motes do not conform to the type of the Ingliston Mote.[2] It has mote hill and base court; others have mote hill only. In Glencairn there are three motes, but Birkshaw and Maxwelton motes have no base court. Why this difference? I think it will be found to represent a forgotten page of history. When the Anglo-Norman first came to Scotland he came to a strange land that spoke a strange tongue and that had customs, laws, and church entirely alien to what he was born and bred to. The Normans were overbearing, and therefore unpopular. Like the Germany of Hitler, they regarded themselves as a superior race and acted accordingly. But they understood statecraft and knew that they could not expect to act as a superior race in Scot-

[2] The place-name really implies its origin—the settlement of an Englishman. Many other motes bearing this name can be instanced.

land without trouble. So, though they did not have to conquer Scotland as in the South, they took very good care to bring with them a body of armed retainers. These retainers were notoriously brutal, something like a cross between a gangster and an S.S. man. They occupied the base court, whilst the Anglo-Norman lord, true to his creed of superiority, resided on the mote hill. But it was not only his creed that dictated this. His retainers were mercenaries, and as such, unreliable. The axiom safety-first was not unknown to the Anglo-Norman. But after settlement had been effected the lordship was divided up by what was known as subinfeudation usually into knights' fees representing roughly a £20 land, and some of the retainers might have been vested in a knights' fee or part thereof and the rest dispensed with. A base court would then no longer be required, and any new motes erected by the holder of a knights' fee would be on the simpler model of a mote hill without base court. Such certainly happened in Annandale. Brus' first mote at Annan had a base court. His later mote at Lochmaben, perhaps two generations later, was a large and massive mote hill only. From this I reason that the mote with a base court is in date earlier than one without such appendage, and it follows that this Ingliston Mote is of earlier date than the other two motes in Glencairn which have no base court.

Some further deductions may be suggested. The lordship of Glencairn almost certainly was coterminous with the parish, and Ingliston Mote may be assumed to be its " caput " where the original Anglo-Norman dwelt. History is silent as to his name or the nature of his feudal holding. But he may have held by service of three knights' fees and all that follows therefrom. Very briefly that means that in time of war he had to serve *his* feudal superior—in this case the Crown—with three knights when called on or make a cash payment in their place. He himself would represent one of the knights, the other two being supplied by the holders of his two knights' fees. This would imply three Anglo-Norman residences in Glencairn, and we

have *three* motes; and it is rather remarkable that when Glencairn parish emerges about 1450 into fully documented history it is then found to have been divided into *three* baronies—(1) the barony of Glencairn, which before Bannockburn belonged to the Danielstoun family, who in 1404 ended in an heiress who carried it to her husband, Sir William Cunynghame, ancestor of the Earls of Glencairn; (2) the barony of Snaid, created just after Bannockburn in favour of John Lachlanson, whose family ended in 1373 when it passed to the Cunynghames of Belton and thence to John Hay of Snaid; and (3) the barony of Crawfordstoun or Balmakane, first owned by Crawford in 1346, passing before 1466 to the Crichtons of Sanquhar; of this barony the estate of Craigdarroch was a part. This, then, is a possible solution of some of the obscurities in which the early history of Glencairn is involved.

Centuries of silence have engulfed these motes, and it is only in quite recent years that their true meaning and character has been discovered. During that darkness all sorts of uses and origins have been ascribed to them. But even wild guesses sometimes contain a germ of truth, though Romans and Arch Druids may be safely discounted.[3] That this earthwork, 36 feet high, was used as butts for archery in the 15th century is quite likely. Similarly it was used in one sense as a moot hill or meeting place, though the word "moot" is derived from a very different root from mote. Long after its Norman origin was forgotten it was still used for official purposes as the caput or principal messuage of the barony of Glencairn. When a new heir to the barony had to be legally infeft, there gathered here a small group of local notables, the baron bailie and the inevitable notary, and the baron bailie solemnly gave infeftment by earth and stone to the heir—a proceeding recorded by the notary in writing and witnessed by the notables. Whatever the party may have thought of the origin of the mound, the fact that they were assembled on the principal messuage of the barony

[3] The conjectures respectively of the Rev. J. Monteath, minister of the parish, and of William Bennett.

implies by all law and custom that it was the site of the original habitation of the first grantee. In 1511 the barony was erected into the Earldom of Glencairn, and at the infeftment which, I believe, took place on this site, the notary recorded the name of the principal messuage as "Darnagill, beside the church of Glencairn." I must refrain from dwelling on the feudal import of this reference to the church. Two years later documents are extant referring to Darnagill, as "otherwise called Maxweltoun." Whether or not this implies a later transposition of place-names is a problem the elucidation of which I will leave to others.

25th APRIL, 1947.

Chairman—The PRESIDENT.

On this date was held the second Conversazione of the Society in the Unionist Rooms. Some 125 members and friends attended. Mr Walter Duncan exhibited some Jade, and spoke on the discovery of the remains of a Roman trading post on the Coremandel Coast of India, and Mr R. C. Reid gave a short talk on Bronze Axes. In the absence of Mr O. J. Pullen, owing to illness, Mr Arthur Duncan gave a running commentary on a film of "Life on the Galapagos Islands," supplied by Mr Pullen.

Note on a Stone-Axehammer from Locharbriggs.

By R. B. K. Stevenson, M.A.

On 7th February, 1947, a stone-axehammer was found at Locharbriggs (Map ref., O.S. 1 inch to a mile, Sheet 88, 481022). Dr. T. R. Burnett gives the following details: "The point is in a little side road which joins the main road to Moffat opposite Locharbriggs Station and about 15 yards from this junction. About 90 feet O.D. Here a trench 17 feet deep has been dug in connection with a drainage scheme. On returning to the trench after an interval, a workman noticed the hole in the axe which was embedded in the wall of the trench point downwards. Examination of the section indicates that the surface layers to a depth of about 18 inches consist of road metalling, below which is a layer of cobbles about 6 inches thick, which has been either a foundation for the road or its original surface. Below the cobbles is the undisturbed gravel and sand which overlies the New Red Sandstone to a depth (here) of about 10 feet. The axe was found about 2 feet below the natural surface of this gravel which geologists usually attribute to an outwash of the Nith Glacier."

The implement was submitted to the Keeper of the National Museum of Antiquities of Scotland, who writes as follows:

The axehammer is particularly well made and in virtually perfect condition, though it shows some signs of use. A piece has been knocked off, perhaps during manufacture, close to the hammer end, but this has been made good by grinding down the broken surface. In weight and size—6¾ inches long—it is unusual. For it is intermediate between the lighter "battle-axe" of various shapes, sometimes found with prehistoric burials, and the purely utilitarian tools up to 13 inches long, which have not been found in datable contexts. The latter are particularly common in S.-W. Scotland.

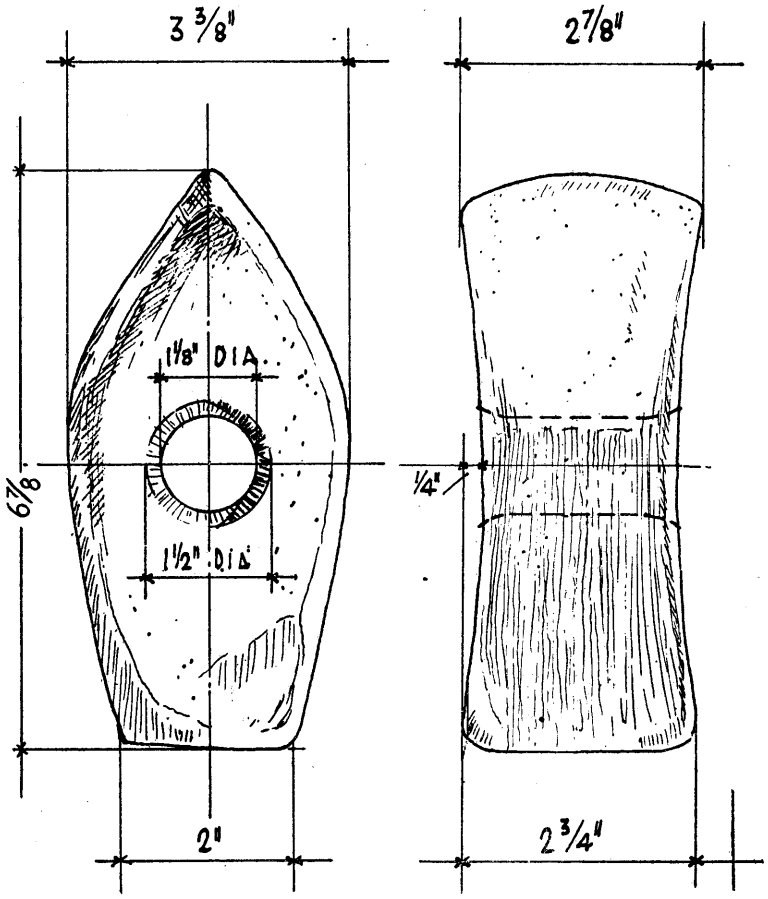


Fig. 1.

As can be seen in fig. 1, the shaft hole has been drilled right in the centre, and is as usual slightly hour-glass shaped, having been worked from both directions. As seen from above, the sides of the implement curve outwards from the rather thick cutting-edge at one end, and from the flat butt at the other, so as to form a blunt angle at the widest point, forward of the centre. In side view the upper and lower surfaces are not quite flat, but curve upwards from the middle towards each end; the edge is slightly curved and the butt straight.

Little is known of the development of the large axe-hammer, but that of the battle-axe types has been studied in detail by R. A. Smith (*Archæologia*, LXXV., 1924-5, pp. 77-108). The slightly curved top and bottom surfaces of the Locharbriggs implement, and its square butt, place it intermediate between the earliest Bronze Age type and those of the middle Bronze Age. The former is flat with curved butt, the latter marked by a flaring edge, curved surfaces, and a truncated-cone butt. A battle-axe not unlike your implement was found in a grave at Cowlam, Yorkshire, datable to some part of the early Bronze Age. A similar specimen comes from Peeblesshire. These do not have the swelling on the sides, which is an unusual feature of the Locharbriggs axehammer. We may note two large specimens in the National Museum from Torhouskie and Glasserton in Wigtownshire. These have a swelling opposite the hole. A flat battle-axe from Barochan, Renfrewshire, has a projecting ornamental ridge in the same position. A closer parallel may be noted from Colmonell, Ayrshire; it is a large rather irregularly-shaped axehammer, widest forward of the hole. None of these have the curving top and bottom, but this occurs on one from Carnarvonshire, larger and more of a middle Bronze Age shape than yours, illustrated by W. F. Grimes (*Archæologia Cambrensis*, XC., 1935, p. 269), who discusses axehammers briefly. It is a reminder that we must never forget to look toward Wales when searching for parallels to finds made in Dumfries and Galloway.

Glenluce Abbey.

By G. P. H Watson, F.R.I.B.A.

This remote little Cistercian house, tucked away in the north-western corner of 12th century Christendom, is one of the many abbeys that have little or no written history. The few particulars that appear on record have already been gathered up and presented to you by Mr David Henry[1] and by Mr R. C. Reid[2]; Mr James S. Richardson, the Inspector of Ancient Monuments in Scotland, has described the buildings.[3] All that they leave for me to do to-day is to sketch in the background.

Let me first tell you something of the Cistercian reform and its prime mover, St. Stephen Harding. Harding was an Englishman, born sometime before the Norman Conquest at Sherborne in Dorset. He was educated there and at Malmesbury. While little more than a youth he came to Scotland, and it is tempting to speculate that he may have taken refuge at Old Melrose, the Cuthbertine monastery situated in a crook of the Tweed a mile or so east of the Cistercian Abbey beside the town. Be that as it may, from Scotland Harding went to Paris, thence to Rome. On the way home he passed through Burgundy, where he stayed in the Benedictine Abbey of St. Mary at Molesme. He became a professed monk of that house, and ultimately became its sub-prior. By that time this abbey had outgrown its youthful difficulties and it now waxed fat and prosperous; with that, we are told, laxity invaded the community. Robert, first abbot of Molesme, tried to reform his house but failed. He thereupon resigned his charge, and Alberic was elected the second abbot. In his attempt to effect reforms Alberic had no better fortune. And seeing that,

1 "Archæological and Historical Collections of the Ayrshire and Galloway Association" (1885), V., p. 125. See also "ibid" (1899), X., 199.

2 D. and G. "Transactions" (1936-8), XXI., 290.

3 "ibid," 310.

Robert, together with Stephen Harding and two others, decided to take the extreme step of leaving their monastery and setting out to find a retreat where the rule of St. Benedict might be followed more closely than at home; they had no intention of founding a few order of religious. After wandering about for some little time they settled at Cistercium in Burgundy, a desolate marshy place, and there they built a little chapel of wood and named it in honour of the Blessed Virgin, like the abbey they had left. And we shall find that all the great Cistercian churches that followed this rude oratory are likewise dedicated to St. Mary. For a monk to desert his monastery ran directly counter to the idea of *stabilitas* that St. Benedict had in mind when formulating his rule. It is therefore not surprising to find that the Pope recalled them forthwith to Molesme. And, like good monks, back they went. They found things no better than before; their proposals for reform no more acceptable to the majority than they had previously been. Once more they felt impelled to leave the place, and this time Robert and Stephen Harding took with them Alberic and nineteen others. They set out for Cistercium, soon to be known as Citeaux. It was not until 1098 that the community received Papal sanction for their secession. And so we read in the chronicles:

Anno milleno centeno quo minus uno
sub patre Roberto cœpit Cistercius ordo.

On the 21st of March of the year 1098, the birthday of St. Benedict himself, they laid the foundations of a new minster, again a rude oratory of wood with a booth annexed for them to sleep in. When completed these buildings were formally dedicated and officially recognised by the Bishop of Chalon. But it was not until the year 1100 that the Pope gave authority for the continuance of the house on permanent lines. Ten years later Stephen Harding became third abbot of Citeaux and he reigned until 1133, the year before his death. The reigns of Stephen and of his predecessor Alberic saw the community at Cistercium emerge as a separate order of religious, but following the rule of

St. Benedict. And in order that the community might follow the rule "ad litteram," it was regulated by a closely-drawn series of bye-laws. Superfluous wealth was fully recognised as a danger to spiritual health, therefore many of the accepted ways by which monasteries were wont to raise funds were expressly forbidden. But a community had at least to possess lands on which to raise the necessaries of life. In the early days of Cistercianism such lands might not extend outside the mantel-wall; that is to say, they had to be within the precinct of the monastery, an enclosure of some 25 to 40 acres, to which the monk was normally confined. But as the numbers of the community increased more land became necessary. Since outlying farms, or granges, could not be worked by the choir-monks, a new class of inmate called *conversi* was introduced. With two classes in the community, each with its own time-table and duties, the accommodation provided in the monastery had to be duplicated in order to avoid confusion and disturbance. In the early days of Cistercianism the abbot was commonly the only member of the community in priests' orders. His choir-monks were invariably drawn from laymen of the upper classes, men able to read and write and knowing enough Latin to take part in the seven canonical services of the day. These had their choir in the east end of the church, their dormitory and chapter-house in the east range of the cloister, and their frater or dining-room on the south side facing the church. The four covered alleys of the cloister formed their dayroom. The choir-monks wore frocks and cowls of undyed wool and black scapulars. They shaved their faces. The average number of choir-monks in an abbey was between 30 and 40.

The *conversi* were also monks, men living according to a rule, and they took almost the same vows as the choir-monks, but they were quite illiterate. They learnt the *Paternoster, Misère* and *Crede* as well as the responses. They were mainly engaged in manual work. They wore brown frocks and they let their beards grow. As a rule they outnumbered the choir-monks considerably in the 12th

century. In the 13th century their numbers were gradually reduced, and they finally died out in the 14th century, having outlived their usefulness. They had become a wild, turbulent lot, and they were replaced by ordinary servants who were amenable to discipline. The *conversi* worshipped in the west end of the church. Their frater was usually on the ground floor of the west range and their dormitory was above it. In early abbeys they had their own cloister on the west side of the west range — the last vestige of a *conversi* cloister can still be seen at Melrose.

Following St. Benedict's example, the early Cistercians resolved to send out offshoots when able to do so. But Stephen Harding, ruler of men and lawmaker as he was, was no great missionary. While he held Citeaux firmly to the rule, he failed to attract new adherents until in 1112 Bernard with twenty-nine followers entered in a body. To a high degree Bernard possessed what Stephen lacked. Within two years of Bernard's admission Citeaux found herself sufficiently strong to found a new abbey called Firmitas. A year later another colony was settled at Clairvaux with Bernard as abbot. From his abbey of Clairvaux St. Bernard, as he was to become, sent out a colony in 1131 to Rievaulx in Yorkshire. This became a mission centre for the north of Britain as Waverley had been for the south. In 1136 Rievaulx colonised Melrose and in 1142 Dundrennan. Some say that Melrose colonised this house of Glenluce but on this the Melrose Chronicle is silent. And the probability is that Glenluce was settled from Dundrennan, Brundrem as they called it then, which would now be ripe for hiving off. But all that we know is that this abbey, *Abbatia de valle lucis*, was constituted on January 21st, in the year 1190; it was the seventh Cistercian house to be settled in Scotland and the three hundred and seventy-eighth in Europe. On that winter's day more than six and a half centuries ago we can picture the arrival of a little band, twelve monks under their abbot, their number symbolic of our Lord and His first disciples. Some preparation would already have been made for their arrival—houses, books and other necessaries

as the Statutes laid down. The essential primary buildings were the church, frater, dorter, guest-house and porter's lodge. In some cases these were no more than sheds of wood, but in others they were of stone. It is possible here that the east end of the church and the south transept were partly built when the colony arrived.

At Glenluce the lay-out of the abbey buildings is normal, with the cloister on the south side of the church. The church itself is cruciform and square-ended, each transept having two eastern chapels, and these chapels were the only parts to be vaulted. The structural nave is six bays long like the church of Sweetheart Abbey. The east range, from the chapter-house southwards, was rebuilt in the late 15th century. The north end of the west range has likewise been rebuilt. The frater, too, has been remodelled. As Glenluce was a late foundation the frater runs north and south, at right angles to the cloister, thus leaving room for the warming-house on the east and the kitchen on the west. This arrangement held advantages over the one customary in abbeys founded before 1150, in which the frater ran east and west, since the introduction of the warming-house into the east range left the sub-vault of the dorter available as a novice-house, while the kitchen was now conveniently placed to serve both the monks' frater and that of the *conversi*. The frater was entered directly from the southern alley of the cloister, and it had a high table at the far end for the chief officers of the community—abbot, prior, precentor, sacrist, cellarer, kitchener and master of the farmery or infirmary. The monks sat at trestle tables set along the side walls. The west wall contained a pulpit from which one of the community read aloud at meals.

In the east range the whole upper floor was taken up by the dormitory. On the ground floor there is a library and sacristy adjoining the south transept, then between that and the chapter-house there is a vaulted passage known as the parlour, where necessary converse was allowed; this passage led to the cemetery. The chapter-house, confined to the lower floor as is customary in Cistercian houses, is

the apartment in which the community met daily after the morning services and discussed necessary business. So that their deliberations might be audible, there is usually an open window on each side of the entrance; here, the doorway has not been fitted with a door, because the customary windows have been omitted. The passage on the south side of the chapter-house presumably led to the infirmary buildings, and it may also have contained the stair giving access to the dormitory during the day.

In the western range there would be a *cellarium* or storehouse next the church, then a roughly central passage, the outer parlour, beyond which lay the frater of the *conversi*. The *conversi* dorter and rere-dorter occupied the upper floor.

Somewhere on the east of the cloister the abbot would have his lodging, and beyond that there would lie the farmery court. When the lay-brothers disappeared from the monastic scene, their dormitory was probably taken over by the abbot for his own use. The arrangement here described is illustrated by the historical ground-plan reproduced in Vol. XXI. of your *Transactions*.

Field Meetings

21st JUNE, 1947.

Glenluce and Mochrum.

In perfect weather the first excursion of the year was directed into Wigtownshire. Travelling via Kirkcudbright to pick up members, the Society reached Glenluce Abbey, where it was met by some local members. Mr G. P. H. Watson, F.R.I.B.A., Architect of the Ancient Monuments Commission, took charge and delivered an address which will be found elsewhere in this volume. He then showed the party round the remains of the Abbey. After a picnic lunch the 'buses followed the coast road to Garheugh, and thence through Mochrum village past Monreith to the old house of Dowies, the earliest residence of the Maxwells of Monreith. Here Mr R. C. Reid spoke on the date and architecture of the house and the history of that family. His address is printed elsewhere in this volume. The party then proceeded to the Standing Stones of Drumtrodden, which for many years have been concealed in a plantation. During the war the timber had been cut, and the stones now stand out on a hillock as a feature of the landscape. Mr Watson again spoke on the significance of these emblems of the Bronze Age. Tea was served at Newton-Stewart, and the party returned to Dumfries about 8 p.m.

26th JULY, 1947.

The Glencairn Area.

This afternoon excursion, planned by Messrs Cossar and Wightman, started under very threatening auspices. The first stop was at Friars' Carse, where Professor Balfour-Browne was the speaker. The history of this estate and its owners has yet to be written, but there can be little doubt that it was included in that quarter of her lands of Dunscore which Affrica, daughter of Edgar, gave to the Monastery of

The Standing Stones of Drumtrodden.

Melrose about the year 1215. As the lands extended from Friars' Carse to Glenesland, it was a very substantial grant. There is no evidence to show that Friars' Carse was the site of a monk's cell, but for the administration of this outlying estate Melrose must have had some sort of grange, just as it had at Mauchline, where considerable remains can still be seen. At the time of the Reformation part of these conventual lands were acquired by the Kirkpatricks, from whom it passed to the Maxwells of Tinwald, and thence to the Riddells of Glenriddel, who were the owners in the time of Grose, the antiquary, and Robert Burns. Grose states in his notice of Friars' Carse that the old house was pulled down in 1773 to make way for the present one, that is the one that existed at the time of his visit. He states that the old house was pulled down because it had become ruinous, and that the wall of the dining-room was 8 feet thick, while the chimney in that room was 12 feet wide. The estate next passed to a Dr. Smith, R.N., and later to Dr. Crichton, a native of Sanquhar, who rose from very poor circumstances, adopted the medical profession, and by his skill and energy became the physician to the Governor-General of India, where he amassed a large fortune. He resided at Friars' Carse from 1809-1823. Shortly before his death he made provision for many relatives and friends, and directed that any surplus should be applied to charitable purposes as might be decided by his wife, Elizabeth Grierson, daughter of Sir Robert Grierson, 5th Baronet of Lag, a descendant of the "Bloody Grierson," the persecutor of the Covenanters. This vast sum that was left was intended for a University, but as the authorities considered that there were plenty of Universities in Scotland, they would not permit it, and ultimately it was decided to found and endow a lunatic asylum. This is the present Crichton Royal Institution, the finest mental institution in Great Britain, of which Professor Balfour-Browne's grandfather, Dr. W. A. F. Browne, was the first superintendent.

In 1823 Friars' Carse passed from the Crichtons to a Thomas Nelson, who was almost certainly the builder of

the core of the present house. Some members of the family were still here somewhere between 1880 and 1885, and the speaker could remember as a small boy being brought here to lunch and for a bonfire. He was shown the Hermitage where, he was told, perhaps wrongly, that Burns wrote "The Whistle." Somewhere about 1890 the place came into the possession of the Crichton Royal, and was used for certain kinds of mental patients. He could remember seeing the waggonette leaving or entering the gate on various occasions when the patients were taken out for drives. In 1909 the place was again sold to Mr C. W. Dickson, who made extensive additions, and from whom it was purchased in 1937 by the Post Office for use as a rest home.

It was in the dining-room of the old house that the ignoble contest took place that led to Burns's poem. Hard drinking was normal at the time, but it seems that earlier someone had started a contest, the winner being he who could blow a whistle last after heavy drinking. Burns starts with a certain Loda, who instructed the god of the bottle: "This whistle's your challenge to Scotland, get o'er and drink them to Hell, Sir; or ne'er see me more." Old Loda's son was a marvel, and blew on the whistle the requiem of many a contestant. Then there appeared Robert, "the lord of the Cairn and the Scaur, unmatched at the bottle, unconquered in war," who won the trophy and held it until three noble chieftains of his own blood renewed the jovial contest on October 16th, 1789. The contestants were Captain Riddel of Glenriddel and Friars' Carse and an elder of the Church, Fergusson of Craigdarroch, and Sir Robert Laurie, M.P. for Dumfriesshire. They sat down in daylight, and the carouse continued throughout the night; Glenriddel gave up first, but

> The gallant Sir Robert fought hard to the end,
> But who can with Fate and quart bumpers contend.
> Though Fate said a hero should perish in light,
> So up rose bright Phœbus and down fell the knight.
>
> Next up rose our bard, like a prophet in drink:
> "Craigdarroch, thou'lt soar when creation shall sink,
> But if thou would flourish immortal in rhyme,
> Come—one bottle more—and have at the sublime."

Ellisland, where Burns came to live in 1788, is just below Friars' Carse, and Riddel was a good friend to the poet, who had a free run of the place.

It is perhaps interesting that another good friend of Burns was a Mrs Riddel, wife of Walter Riddel, brother of the laird of Friars' Carse, who lived at Woodley Park, now Goldielea, and, as Sir Hugh Gladstone said in his Presidential Address to the Society in 1914, "the fame of Maria Riddel probably exists to-day on account of the part she played in the life of Burns."

Apart from its Burns association, Friars' Carse possesses definite antiquarian interest. Captain Riddel was one of our earliest local antiquaries, who collected and recorded all sorts of antiquarian and archæological data which have fortunately been preserved in the Library of the Society of Antiquaries of Scotland. Another volume, the finest of them all, for it is super illustrated with drawings and water-colours, is in the Library of the Society of Antiquaries in London.

Following also the vogue of his period, he essayed imitations of the antique. It would be unfair to describe them as fakes, for that term implies an intention to deceive, whereas Riddel and his age sought rather a novelty in decoration. His motive was akin to us to-day when we prefer to furnish our houses with copies of Chippendale's or Adams' work rather than the steel austerity which alone is available. But to a later age his imitations are misleading.

At a corner of the drive he erected what used to be known as the Hermitage, a small garden retreat the size of a summer house but designed to be archaic, with ecclesiastical features. Later generations were prone to associate a Friar with this Hermitage—now swept away. Another of his imitations was a Bronze Age stone circle which he erected on a knoll a short way up the river. It is now a most realistic affair, correct in lay-out and so weathered as to take in anyone. It should be a warning to all antiquaries.

Riddel also collected stone crosses, inscribed stones, fonts and the like, some of which he set up in front of the house and others at the Hermitage, which latter seem to

have disappeared. There is no record of where he found them, but a few have been identified, one of which was the font of the Pre-Reformation Church of Mouswald, bearing the coat-of-arms of the donor. Shortly before his death the late Mr Dickson of Friars' Carse most generously presented it to the Mouswald Kirk Session, and it now is restored to its former use within that kirk. Antiquaries should be grateful to the memory of Captain Riddel.

It is rather remarkable that there is no account of Friars' Carse in the Dumfriesshire Inventory of the Historical Monuments Commission.

The party then proceeded to Renwick's Monument at Moniaive, when Mr R. C. Reid spoke from notes provided by Mr Symington, headmaster of that school. In Moniaive village tea was served, during which the weather broke completely, and the intended visit to the Mote of Inglistoun had to be omitted. Mr Reid's address appears elsewhere in this volume.

23rd AUGUST, 1947.

The Roman Site at Milton.

This afternoon's excursion was arranged in conjunction with the Glasgow Archæological Society. It was an unusual occasion, because the newly established Scottish Field School of Archæology had been functioning for the first time. Milton had been selected as the site because it had been opened by Mr John Clarke the previous year, and its importance and possibilities had been revealed. There was a large gathering, both Glasgow and Edinburgh Universities being well represented. Owing to the indisposition of Mr T. N. Davidson, O.B.E., Chairman of the Scottish Regional Group, Mr Reid opened the proceedings with a few words of introduction, and then Mr Clarke spoke at length whilst conducting the party round the site. A cordial vote of thanks was moved by Miss Anne Robertson, and Lt.-Col. Eric Birley of Durham University, after

reviewing certain features of the excavations, complimented the Regional Group on the success of its effort and foretold a great future in a wide field for the newly established School.

A report on the School and its excavation will be found at the beginning of this volume.

6th SEPTEMBER, 1947.

Forest of Ae.

This was a joint excursion with the Forestry Society—a fact which contributed largely to its interest, value, and success.

The parties assembled near the old Glencorse Toll Bar, and were welcomed by Commander Desmond Maxwell of Munches, President of the Forestry Society, who called on Mr Thom, the Conservator, to explain the Ae Forest Scheme.

Among the many points in Mr Thom's address were the following :

We were on the site of one of the first of the new Forest Villages, which will eventually have some 80 cottages for workers and all the adjuncts for community life, including school, shops, playing fields, church, village hall, and inn.

The total area of land acquired by the Commission since 1926 is about 10,000 acres, of which about one-third has been planted and a quarter is regarded as unplantable. The planted area is occupied by Sitka Spruce (60%) and Norway Spruce (26%), with a small amount of Scots Pine, Hybrid, Japanese and European Larch. Thinning is already in progress, and is providing pitwood and fencing stakes. The labour force consists of about 20 local men and 50 German P.O.W. The best of the land will continue to be used for agriculture, while the unplantable area will still provide rough grazing.

After this helpful introduction the visitors divided into two groups, according as they did or did not wish for a roughish walk of about three miles. The less ambitious group

were conducted by members of the staff to see the activities in the main valley of the Ae, the crossing of which river was made by the recently erected suspension footbridge. A new house built of logs and of a type rarely, if ever, seen in this country, was inspected with interest. On rejoining the 'buses this group drove to Burnfoot, where there have been wooden houses for foresters for many years. But the main point was the nursery which raises a portion of the seedlings for the forest, and the whole treatment of the plants was fully explained.

Meanwhile the other section, led by Mr Thom and the President, were traversing the old drove road which runs parallel with the Goukstane Burn and is now shut in with dense forest growth. Its surface has been improved, and it serves as a main artery for this portion of the forest. In the course of the walk many questions were asked and answered and many discussions took place. Birds, pests, yield, habit, and the type of crop suited to the varying soils were among the subjects raised.

The only place of antiquarian interest to be visited was the " King's Well and Chair." This, although shown on the maps, had long evaded re-discovery, and it was only during the past winter that the leaders (in anticipation of this visit) had, with the aid of large-scale maps and careful measurement, identified the site. The spring is pleasant without being spectacular, and was flowing normally although there had been a long period of drought. It was thought that the water might be of deep-seated origin and possess qualities different from those of the ordinary waters of the district. A sample was therefore taken, but the analysis, kindly made by Mr J. W. Hawley, " presented no unusual feature." The " Chair," which had almost eluded discovery on the preparatory visit because it was then so thickly overgrown with moss and other vegetation, had been cleared and was now easily recognisable as a natural rock seat. Beyond the legend that the Bruce stopped here for rest and refreshment, no information has been obtained about these objects, but it is satisfactory to know that they will be preserved in the future.

The two groups joined up again at the Hall at Gubhill village, where most welcome tea was kindly provided by our hosts.

The return journey was made by way of Loch Ettrick and Closeburn, affording the opportunity of seeing much more of the forest as well as the striking panorama of Nithsdale which is obtained from the top of the pass.

Dumfries was reached at about 6.30, after a delightful and profitable outing, for which we are largely indebted to our good friends of the Forestry Coommission and Forestry Society.

Presentations

October 1st, 1946.—A large block of vitrified stone from Trusty's Hill Fort, Anwoth—presented by Mr R. Lillie, LL.B.

November 22nd, 1946.—

(1) A packet of air photographs of the Moffat district—presented by Mr Greenshields.

(2) A pen etching of Mr Robert Herries, Banker, aged 72—presented by Mr D. C. Herries.

(3) Dirk and scabbard of a sergeant of Nithsdale Volunteers, 1803, or Nithsdale Militia, 1808, used by Alex. Tay, great-great-grandfather of the donor.

(4) Life preserver, once the property of Peter Tay of Dumfries (born 1803, died c. 1850), used by him when Irish navvies of dangerous propensities were laying the Glasgow S.-W. Railway in Dumfriesshire—presented by Rev. Wm. M'Millan, D.D.

January 24th, 1947.—

(1) Stone axe from Locharbriggs; see illustrated note thereon in this volume—presented by Mr James Ray, Housing Foreman to County Council.

(2) A collection of early Scottish candlesticks made in and around Crossmichael, 100-200 years old.

(3) A heart-shaped metal "ladle" for lifting oatcakes from the griddle.

(4) Old mahogany salt box mounted with brass studs, for hanging on the wall, together with the original spoons. The above items are from Culgruff—presented by the Dowager Duchess of Grafton.

(5) Old ledger book (bound in 1853), containing a 19th century copy of a fragment of the Court Book of the Regality of Terregles, 1664. The entries refer to a process relating to James M'Conchie of Crochmoir, and other small debt cases. The original MSS. of the Court is not now known to exist, but it is clear that a Court Book was in existence in 1853—presented by Messrs Jardine Bros., Burns Street, Dumfries.

March 28th, 1947.—An old picture of part of the Glasgow Road, showing the entrance to Somerville and Portland Place—presented by Mrs Henderson.

Exhibits

October 1st, 1946.—

(1) A bronze key, stated to be for a barrel padlock dating from the Viking period. found 5 feet below the surface of the peat in Shetland.

(2) An Egyptian water cooler from the Carter Expedition, perhaps dating 3000 B.C., and an Egyptian bowl. Exhibited by Mr T. R. Jardine.

November 22nd, 1946.—

(1) Some parchments relating to the Dalrymple family, one dated 1699, and two burgess tickets, one being granted by Jedburgh, 1790, and the other by North Berwick, to Sir Hugh Dalrymple. Exhibited by Mrs Abigail Baird, Ruthwell.

(2) An ox horn (Bos Longiforns) found 6 feet deep in peat near Rainsford, Lancs. Exhibited by Mr Tomter.

(3) Some worked stones from Shetland. Exhibited by Mr Jensen.

(4) Stone which had markings akin to petrified hoof-marks, and a letter from Mr Donald M'Kenzie on the mythology of such marks.

(5) Small stone axe from New Zealand. Exhibited by Mr F. W. Smith, Boreland, Southwick.

January 10th, 1947.—Gold-mounted Malacca cane with clip for handkerchief, bearing a presentation inscription to Mr Mundell, Rector of Wallace Hall Academy about 100 years ago. The cane turned up in London, and was acquired for the Academy by Mr O. J. Pullen, who exhibited it.

February 21st, 1947.—

(1) A brass plaque, purchased in Cambridge, which is a copy, only the third so far discovered, of a silver badge dated 1774, used by the Baron Baillie of the Canongate for ceremonial purposes. The plaques were cast from the silver badge, which was doubtless worn by the Baillie. Exhibited by Mr Walter Duncan.

(2) Two metal turners for turning oatcakes on the griddle, and a candlestick from a smithy's forge at Glenluce, very similar to those exhibited on January 24th. Exhibited by the Rev. Mr M'William.

(3) A Muskin spear, for extracting "razor fish" molluscs, known as razor shells, from their burrows in the sand. Exhibited by the Rev. Mr M'William.

March 28th, 1947.—A male black redstart found near Eliock, the first specimen to be found in Dumfriesshire. The species was first recorded in Britain in 1925, and since the bombing of London has become common in the bombed areas. Exhibited by Mr O. J. Pullen (per Mr Arthur Duncan).

April 11th, 1947.—Bronze axe, bearing the following inscription: "Found in Barsceoch Mooss 7 feet below the surface, June, 1850. Joseph Train."—Exhibited by the Proprietor of the White Hart Hotel.

Dumfriesshire and Galloway

Natural History and Antiquarian Society

MEMBERSHIP LIST, April 1st, 1948

Fellows of the Society under Rule 10 are indicated thus *

LIFE MEMBERS.

Ailsa, The Dowager Marchioness of, Culzean Castle, Maybole, Ayrshire 1947
Aitchison, Sir W. de Lancy, Bart., M.A., F.S.A., Coupland Castle, Wooler, Northumberland 1946
Allen, J. Francis, M.D., F.R.S.E., Lincluden, 39 Cromwell Road, Teddington, Middlesex ... ... —
Balfour-Browne, Professor W. A. F., M.A., F.R.S.E., Brocklehirst, Dumfries 1941
Birley, Lt.-Col. E., M.B.E., M.A., F.S.A., F.S.A.Scot., Chesterholm, Bardon Mill, Hexham, Northumberland 1935
Blackwell, Philip, F.B., Lt.-Commander, R.N. (Ret.), Little Boreland, Gatehouse-of-Fleet, Castle-Douglas 1946
Borthwick, Major W. S., T.D., 92 Guibal Road, Lee, London, S.E.12 (Ordinary Member, 1936) 1943
Brown, J. Douglas, M.A., M.B.O.U., F.Z.S., Corseyard, Borgue, Kirkcudbright 1946
Buccleuch and Queensberry, His Grace the Duke of, P.C., G.C.V.O., Drumlanrig Castle, Thornhill, Dumfries ... —
Buccleuch and Queensberry, Her Grace the Dowager Duchess of, Bowhill, Selkirk ... ... —
Burnand, Miss K. E., F.Z.S.Scot., Brocklehirst, Dumfries (Ordinary Member, 1941) 1943
Bute, The Most Hon. the Marquis of, M.B.O.U., F.Z.S., F.S.A.Scot., Kames Castle, Port Bannatyne, Isle of Bute 1944-45
Carruthers, Dr. G. J. R., 4A Melville Street, Edinburgh, 3 (Ordinary Member, 1909) 1914
Cunningham, David, M.A., The Academy, Dumfries ... 1945
Cunningham-Jardine, Mrs, Jardine Hall, Lockerbie (Ordinary Member, 1926) 1943
Easterbrook, Charles C., M.A., M.D., F.R.C.P.Ed., c/o British Linen Bank, Edinburgh 1908
Ferguson, James A., Over Courance, by Lockerbie 1929
Ferguson, Mrs J. A., Over Courance, by Lockerbie 1929

*Gladstone, Sir Hugh S., M.A., F.R.S.E., F.Z.S., F.S.A.Scot., L.L., Capenoch, Penpont, Dumfries (President, 1909-1929) 1905
Gladstone, Lady, Capenoch, Penpont, Dumfries ... ... —
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
Kennedy, Alexander, Ardvoulin, South Park Road, Ayr (Ordinary Member, 1934) 1943
Kennedy, Thomas H., Blackwood, Auldgirth, Dumfries ... 1946
M'Call, Major W., D.L., Caitloch, Moniaive, Dumfries ... 1929
M'Culloch, Walter, W.S., 4 Ainslie Place, Edinburgh, 3 ... 1946
M'Kie, John H., M.P., Auchencairn House, Castle-Douglas, Kirkcudbrightshire 1943
M'Millan, Rev. W., D.D., Ph.D., St. Leonard's Manse, Dunfermline (Ordinary Member, 1913) 1924
Mansfield, The Right Hon. the Earl of, F.Z.S., M.B.O.U., J.P., Comlongon Castle, Ruthwell, Dumfries 1939
Muir, James, Heroncroft, Craigton, Newton-Stewart, Wigtownshire 1925
Paterson, E. A., c/o Messrs Jardine, Skinner & Co., 4 Clive Road, Calcutta 1945
Phinn, Mrs E. M., Hillowton, Castle-Douglas (Ordinary Member, 1938) 1943
Spencer, Col. C. L., C.B.E., D.S.O., Warmanbie, Annan ... 1929
Spencer, Miss, Warmanbie, Annan 1929
Spragge, T. H., Commander, Monkquhell, Blairgowrie, Perthshire (Ordinary Member, 1931) 1947
Thomson, Miss N. M., Carlingwark, Castle-Douglas 1929
Thomas, R. G. D , Southwick House, Southwick, by Dumfries 1929

ORDINARY MEMBERS.

Agnew, Mrs David, Rutherford House, Gatehouse-of-Fleet 1946
Aitchison, Mrs M., Hoyland, Annan Road, Dumfries ... 1946
Allan, John, M.R.C.V.S., 14 Queen Street, Castle-Douglas... 1926
Anderson, D. G., 12 Buccleuch Street, Dumfries 1936
Armstrong, Col. Robert A., Bargaly, Newton-Stewart ... 1946
Armstrong, Mrs R. A., Bargaly, Newton-Stewart 1946
Armstrong, Thomas, 41 Moffat Road, Dumfries 1944
Armstrong, William, Thirlmere, Edinburgh Road, Dumfries 1946
Armstrong, Mrs W., Thirlmere, Edinburgh Road, Dumfries 1946

Bailey, W. G., B.Sc., F.R.I.C., North Laurieknowe House, Dumfries 1947
Bailey, Mrs, M.A., B.Sc., North Laurieknowe House, Dumfries 1947
Baird, Matthew M., Bankhead, Moffat 1947
Baird, Mrs, Bankhead, Moffat 1947
Balfour-Browne, Miss E. M. C., Goldielea, Dumfries ... 1944
Balfour-Browne, V. R., J.P., Dalskairth, Dumfries 1944
Ballantyne, John, West Roucan, Torthorwald Road, Collin, Dumfries 1946
Barr, J. Glen, F.S.M.C., F.B.O.A., F.I.O., 72 English Street, Dumfries 1946
Bartholomew, George, A.R.I.B.A., Drumclair, Johnstone Park, Dumfries 1945
Bartholomew, James, Glenorchard, Torrance, near Glasgow... 1910
Bayetto, Ronald A., 55 South Street, Epsom, Surrey ... 1946
Beaton, Donald, M.B., F.R.C.S., M.R.C.O.G., 51 Newall Terrace, Dumfries 1947
Beaton, Mrs, 51 Newall Terrace, Dumfries 1947
Beattie, Miss Isobel H. K., A.R.I.B.A., Thrushwood, Mouswald, Dumfries 1947
Beattie, Lewis, Thrushwood, Mouswald, Dumfries 1947
Bell, Mrs M. C., Seaforth, Annan 1920
Benzies, Wm. C., M.A., Schoolhouse, Minnigaff, Newton-Stewart 1946
Bertwistle, A. P., M.B., Ch.B., F.R.C.S.(Ed.), Maxwell Hill, Laurieknowe, Dumfries 1947
Bertwistle, Mrs, Maxwell Hill, Laurieknowe 1947
Biggar, Miss, Corbieton, Castle-Douglas 1947
Biggar, Miss E. I., Corbieton, Castle-Douglas 1947
Birrell, Adam, Park Crescent, Creetown 1925
Black, Miss Amy G., Burton Old Hall, Burton, Westmoreland 1946
Blair, Hugh A., New Club, Edinburgh 1947
Bone, Miss E., Lochvale, Castle-Douglas 1937
Bowden, Charles, Screel, Rockcliffe, Dalbeattie 1943
Bowden, Mrs Charles, Screel, Rockcliffe, Dalbeattie ... 1944
Bowie, J. M., F.R.I.B.A., Byrlaw, Dalbeattie Road, Dumfries 1905
Brand, George, Kilroy, Auldgirth 1942
Brand, Mrs George Kilroy, Auldgirth 1941
Brooke, Dr. A. Kelly, Masonfield, Newton-Stewart... ... 1947
Brown, Arthur, M.A., The Academy, Dumfries 1945
Brown, G. D., B.Sc., A.M.I.C.E., Largie, Rotchell Road, Dumfries 1938
Brown, Mrs M. G., Caerlochan, Dumfries Road, Castle-Douglas 1946

Brown, William, J.P., Burnbrae, Penpont, Dumfries ... 1944
Brydon, James, 135 Irish Street, Dumfries 1929
Burnett, T. R., B.Sc., Ph.D., F.C.S., Airdmhoire, Kirkton, Dumfries (President, 1946-)... 1920
Caird, J. B., 38 George Street, Dumfries 1948
Caird, Mrs, 38 George Street, Dumfries 1948
Caldwell, A. T., L.R.I.B.A., F.R.I.A.S., "Avmid," Kirkcudbright 1944
Calvert, Rev. George, The Manse, Mouswald, Dumfries ... 1945
Calvert, Mrs, The Manse, Mouswald, Dumfries 1946
Campbell, John, Buccleuch Street, Dumfries 1944
Campbell-Johnston, David, Carnsalloch, Dumfries 1946
Carlyle, Miss C. H., Templehill, Waterbeck, Lockerbie ... 1946
Carlyle, Miss E. M. L., Templehill, Waterbeck, Lockerbie... 1946
Carruthers, Mrs L., 43 Castle Street, Dumfries 1946
Charleson, Rev. C. J. Forbes, Hillwood Cottage, Newbridge, Midlothian 1930
Clarke, John,, M.A., F.S.A.Scot., The Grammer School, Paisley 1947
Cleghorn, H. B., Walnut Cottage, Annan Road, Dumfries... 1943
Cochran, Miss J. H. R., Duich, West Linton, Peeblesshire... 1929
Cochrane, Miss M., Glensone, Glencaple, Dumfries 1946
Cormack, David, LL.B., W.S., Royal Bank Buildings, Lockerbie 1913
Cossar, Thomas, Sen., Craignee, Maxwelltown, Dumfries ... 1914
Crabbe, Lt.-Col. J. G., O.B.E., M.C., D.L., Duncow, Dumfries 1911
Craig, Bryce, Deansgate, Nelson Street, Dumfries ... 1946
Craigie, Charles F., The Schoolhouse, Crossmichael 1947
Craigie, Mrs, The Schoolhouse, Crossmichael 1947
Cross, Mrs Evelyn, M.N., Earlston, Borgue, Kirkcudbright 1946
Crosbie, Alan R., Sandyknowe, Troqueer Road, Dumfries... 1946
Crosthwaite, H. M., Crichton Hall, Crichton Royal Institution, Dumfries 1943
Cunningham, Mrs David, 42 Rae Street, Dumfries 1948
Cuthbertson, Capt. W., M.C., Beldcraig, Annan 1920
Dalziel, Miss Agnes, Glenlea, Georgetown Road, Dumfries 1945
Davidson, George D., B.Sc., Renwick Bank, Catherine Street, Dumfries 1947
Davidson, Dr. James, F.R.C.P.Ed., F.S.A.Scot., 4 Randolph Crescent, Edinburgh 1938
Davidson, J. M., O.B.E., F.C.I.S., F.S.A.Scot., Griffin Lodge, Gartcosh, Glasgow 1934
Davidson, R. A. M., Kilness, Moniaive, Dumfries 1938
Dempster, Miss Cecilia, 16 Watling Street, Dumfries ... 1946
Denniston, J., F.E.I.S., Mossgiel, Cardoness Street, Dumfries 1943

Dickson, Miss A. M., Woodhouse, Dunscore, Dumfries ... 1930
Dinwiddie, J. S., M.A., Galloway Hill, Terregles Street, Dumfries 1944
Dinwiddie, N. A. W., M.A., B.Com., Newall Terrace, Dumfries 1937
Dinwiddie, W., Craigelvin, 39 Moffat Road, Dumfries ... 1920
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
Dorward, Miss, 6 Nellieville Terrace, Dumfries 1945
Douglas, James, 3 Rosevale Street, Langholm 1933
Drummond, Gordon, Dunderave, Cassalands, Dumfries ... 1944
Drummond, Mrs Gordon, Dunderave, Cassalands, Dumfries 1946
Drummond, Major J. Lindsay, Albany Bank, Dumfries ... 1947
Drummond, Mrs J. L., Albany Bank, Dumfries 1947
Dryden, Dr. A. M., 10 Albany, Dumfries 1947
Drysdale, Miss J. M., Edinmara, Glencaple, Dumfries ... 1946
*Duncan, Arthur B., B.A., Lannhall, Tynron, Dumfries (President, 1944-1946) 1930
Duncan, Mrs Arthur, Lannhall, Tynron, Dumfries 1945
Duncan, Mrs Bryce, Castlehill, Kirkmahoe, Dumfries ... 1907
Duncan, Walter, Newlands, Dumfries 1926
Ewart, Edward, M.D., Crichton Royal Institution, Dumfries 1946
Firth, Mark, Knockbrex, Kirkcudbright 1946
Flett, David, A.I.A.A., A.R.I.A.S., Herouncroft, Newton-Stewart 1947
Flett, James, A.I.A.A., F.S.A.Scot.,, 3 Langlands, Dumfries 1912
Flett, Mrs J., D.A.(Edin.), 3 Langlands, Dumfries ... 1937
Flinn, Alan J. M., Rathan, Marchhill Drive, Dumfries ... 1946
Forman, Rev. Adam, Dumcrieff, Moffat 1929
Forsyth, George H., Colvend Schoolhouse, Dalbeattie ... 1946
Fraser, Major.-Gen. S., Girthon Old Manse, Gatehouse-of-Fleet, Castle-Douglas 1947
Fraser, Mrs, Girthon Old Manse, Gatehouse-of-Fleet ... 1947
Gair, James C., Delvine, Amisfield 1946
Galloway, The Right Hon. the Earl of, Cumloden, Newton-Stewart, Wigtownshire 1945
Gaskell, W. R., Auchenbrack, Tynron, Dumfries 1934
Gaskell, Mrs W. R., Auchenbrack, Tynron, Dumfries ... 1934
Gaskin, Rev. Percy C., The Manse, Lochrutton, Dumfries... 1944
Gaskin, Mrs, The Manse, Lochrutton, Dumfries 1944
Gibson, Mrs, Sunnyhill, Auldgirth 1946
Gillan, Lt.-Col. Sir George V. B., K.C.I.E., Abbey House, New Abbey 1946
Gillan, Lady, Abbey House, New Abbey 1946

Glendinning, George, Arley House, Thornhill Road, Huddersfield 1942
Goldie, Gordon, The British Embassy, Rome 1947
Gordon, Miss A. J., Kenmure, Dumfries 1907
Gordon, Major Stephen, Closs, Lockerbie 1947
Gordon, Miss Bridget, Closs, Lockerbie 1947
Gourlay, James, Brankston House, Stonehouse, Lanarkshire 1934
Graham, Mrs Fergus, Mossknowe, Kirkpatrick-Fleming, Lockerbie 1947
Graham, C., c/o Faithfull, 52 George Street, Dumfries ... 1945
Graham, Mrs C., c/o Faithfull, 52 George Street, Dumfries 1945
Greeves, Lt.-Col. J. R., B.Sc., A.M.I.E.E., Coolmashee, Crawfordsburn, Co. Down 1947
Grierson, Thomas, Royston, Laurieknowe, Dumfries... ... 1945
Grierson, Mrs Thomas, Royston, Laurieknowe, Dumfries ... 1946
Grieve, R. W., Fernwood, Dumfries 1938
Grieve, Mrs R. W., Fernwood, Dumfries 1946
Haggas, Miss, Terraughtie, Dumfries 1944
Haggas, Miss E. M., Terraughtie, Dumfries 1944
Halliday, T. A., Parkhurst, Dumfries 1906
Halliday, Mrs, Parkhurst, Dumfries 1906
Hannay, A., Lochend, Stranraer... 1926
Harper, Dr. J., Crichton Hall, Crichton Royal Institution, Dumfries 1947
Haslam, Oliver, Cairngill, Colvend, Dalbeattie 1927
Hawley, J. W., B.Sc., F.R.I.C., Ass.M.I.Chem.E., Ardeer, Albert Road, Dumfries 1947
Hawley, Mrs, Ardeer, Albert Road, Dumfries 1947
Henderson, James, Claremont, Dumfries 1905
Henderson, Mrs James, Claremont, Dumfries... 1927
Henderson, Miss J. G., 6 Nellieville Terrace, Dumfries ... 1945
Henderson, Miss J. M., M.A., Claremont, Newall Terrace, Dumfries 1945
Henderson, John, M.A., F.E.I.S., Schoolhouse, Borgue, Kirkcudbright 1933
Henderson, Thomas, The Hermitage, Lockerbie 1902
Henderson, Mrs Walter, Rannoch, St Cuthbert's Avenue, Dumfries 1948
Hendrie, Miss B. S., Cassalands Cottage, Dumfries ... 1944
Henryson-Caird, Major A. J., M.C., Cassencarie, Creetown 1946
Herries, David C., St. Julians, Sevenoaks, Kent 1915
Herries, Col. W. D. Young, Spottes Hall, Castle-Douglas ... 1924
Hetherington, Johnston, B.Sc., Dumgoyne, Dryfe Road, Lockerbie 1946
Hickling, Mrs N., Drumpark Mains, Dumfries 1946
Higgins, Hugh L., Arendal, Albert Road, Dumfries ... 1947
Hislop, John, Manse Road, Lochrutton 1945

Hornel, Miss, Broughton House, Kirkcudbright 1924
Hunt, Miss, Fellside, Moffat 1947
Hunt, Miss Winifred, Fellside, Moffat 1947
Hunter, T. S., Woodford, Edinburgh Road, Dumfries ... 1912
Hunter, Mrs T. S., Woodford, Edinburgh Road, Dumfries... 1947
Hunter, Miss, Mennock, Park Road, Dumfries 1944
Hunter-Arundell, H. W. F., Barjarg, Auldgirth, Dumfries... 1912
Irvine, James, B.Sc., 10 Langlands, Dumfries 1944
Irvine, W. Fergusson, M.A., F.S.A., Brynllwyn Hall, Corwen, North Wales 1908
Irving, John, 22 Victoria Avenue, Maxwelltown 1947
Jack, R., Ormsary, Annan Road, Dumfries 1947
Jack, Mrs, Ormsary, Annan Road, Dumfries 1948
Jameson, Col. A. M., J.P., D.L., Gaitgill, Gatehouse-of-Fleet 1946
Jameson, Mrs A. M., Gaitgill, Gatehouse-of-Fleet 1946
Jamieson, Mrs J. C., St. George's Manse, Castle-Douglas... 1930
Jardine, J. R., 15 Rae Street, Dumfries 1946
Jardine, Major William, Applegarth, Sir Lowry's Pass, Cape of Good Hope, South Africa 1911
Jebb, Mrs G. D., Brooklands, Crocketford, Dumfries ... 1946
Jenkins, Miss Agnes, Mouswald Schoolhouse, Mouswald, Dumfries 1946
Jenkins, Mrs, Mount Annan, Annan 1946
Jenkins, Ross T., 4 Carlton Terrace, Stranraer 1912
Jensen, J. H., Roxburgh House, Annan Road, Dumfries... 1945
Johnson-Ferguson, Col. Sir Edward, Bart., T.D., D.L., Springkell, Eaglesfield, Lockerbie 1905
Johnston, Miss Anne, College Mains, Dumfries 1947
Johnston, F. A., 11 Rutland Court, Knightsbridge, London, S.W.1 1911
Johnstone, Miss E. R., Cluden Bank, Moffat ... ... —
Johnstone, Major J. L., Amisfield Tower, Dumfries ... 1945
Johnstone, R., M.A., Schoolhouse, Southwick 1947
Kelly, John, Borrowdale, Newton-Stewart, Wigtownshire ... 1936
Knight, R. T. F., Clarefoot, Moffat 1946
Laidlaw, Mrs A. W., Chellow Dean, Hermitage Road, Dumfries 1947
Laidlaw, A. G., 84 High Street, Lockerbie 1939
Lauder, Miss A., Craigie Bank, Moffat Road, Dumfries ... 1932
Laurence, D. W., St. Albans, New Abbey Road, Dumfries... 1939
Laurie, F. G., Elsieshields Tower, Lochmaben 1946
Laurie, Miss Rosemary, Maxwelton House, Moniaive, Dumfries 1946
Law, Mrs M. Balfour-, Kinver, Moffat Road, Dumfries ... 1946
Ledbrook, R. E., Struanlea, Moffat Road, Dumfries ... 1946
Lepper, R. S., M.A., LL.M., F.R.Hist.Soc., Elsinore, Crawfordsburn, Co. Down, Ireland 1918

Lethem, Sir Gordon, Johnstone House, Johnstone-Craigheugh, Eskdalemuir, Dumfriesshire 1948
Liverpool, The Countess of, Merkland, Auldgirth, Dumfries 1946
Lodge, Alfred, B.Sc., 39 Castle Street, Dumfries 1946
Lodge, Mrs A., 39 Castle Street, Dumfries 1946
M'Caig, Mrs Margaret H., Barmiltoch, Stranraer 1931
M'Cartney, George, Beechgrove, Kirkpatrick-Durham, by Castle-Douglas 1947
M'Connel, Rev. E. W. J., M.A., 171 Central Avenue, Gretna, Carlisle 1927
M'Cormick, A., Walnut House, Newton-Stewart, Wigtownshire 1905
M'Culloch, Major-General Sir Andrew, K.B.E., C.B., D.S.O., D.C.M., Ardwall, Gatehouse-of-Fleet, Castle-Douglas 1946
M'Culloch, Lady, Ardwall, Gatehouse-of-Fleet, Castle-Douglas ... ... —
Macdonald, W. M. Bell, Rammerscales, Hightae, Lockerbie 1929
M'George, Mrs A. G., Dhucorse, Dumfries 1944
M'Gowan, Bertram, 135 Irish Street, Dumfries 1900
M'Intosh, Mrs, Ramornie, Terregles Street, Dumfries ... 1946
Macintyre, Canon D., M.A., The Rectory, Dumfries ... 1946
Mackay, J. Martin, M.A., LL.D., Sheriff Court, Dumfries... 1947
Mackinley, H., Kilmahew, 65 Terregles Street, Dumfries ... 1917
*M'Kerrow, M. H., F.S.A.Scot., Dunard, Dumfries (President, 1930-1933) 1900
M'Knight, Ian, 4 Montague Street, Dumfries... 1948
M'Knight, Mrs, 4 Montague Street, Dumfries... 1948
M'Lean, A., B.Sc., West Laurieknowe, Dumfries 1944
M'Lean, Mrs M., West Laurieknowe, Dumfries 1944
M'Lean, Mrs M. D., Ewart Library, Dumfries 1946
MacMaster, T., F.C.I.S., F.S.A.Scot., 190 Grange Loan, Edinburgh 1926
M'Math, Miss Grace, Ye Olde Curiosity Shoppe, Charlotte Street, Stranraer 1931
M'Tavish, Alex., Glenmaid, Parkgate, Dumfries 1944
M'Wharrie, Mrs D. Quiney, Closeburn Castle, Dumfriesshire 1945
M'William, Rev. J. M., The Manse, Tynron, Dumfries ... 1944
M'William, Mrs J. M., The Manse, Tynron, Dumfries ... 1945
Maguire, Charles, 5 St. Ninian's Terrace, Isle of Whithorn 1947
Malcolm, Mrs S. A., c/o Mrs Grierson, Stewart Hall, Dumfries 1920
Marshall, Dr. Andrew, Burnock, English Street, Dumfries 1947
Martin, H. M., 2 Stewart Hall Gardens, Dumfries... ... 1945
Martin, John, Ivy Bank, Noblehill, Dumfries 1945
Martin, J. D. Stuart, Old Bank House, Bruce Street, Lochmaben 1946

Martin, Mrs J. D. S., Old Bank House, Bruce Street, Lochmaben 1946
Maxwell, Major-General Aymer, C.B.E., M.C., R.A., Kirkennan, Dalbeattie 1946
Maxwell, G. A., Abbots Meadow, Wykeham, Scarborough ... 1937
Maxwell, Miss I. A., East Gribton, North Berwick 1940
Maxwell, Jean S., Coila, New Abbey Road, Dumfries ... 1947
Maxwell-Witham, Robert, Kirkconnell, New Abbey, Dumfries 1911
Mayer-Gross, Dr. W., Mayfield, Bankend Road, Dumfries... 1945
Miller, R. Pairman, S.S.C., 13 Heriot Row, Edinburgh, 3 ... 1908
Miller, S. N., Damhill Lodge, Corehouse, Lanark 1946
Millar, Stewart, B.Sc., The Academy, Dumfries 1945
Milne, John, Dunesslin, Dunscore, Dumfries 1945
Milne, Mrs J., Dunesslin, Dunscore, Dumfries 1945
Milne-Home, Sir J. H., D.L., Irvine House, Canonbie, Dumfriesshire 1912
Monteith, Miss E. Maud, Wayside, Moniaive 1946
Morgan, Mrs H. M. A., Rockhall, Collin, Dumfries ... 1945
Morgan, R. W. D., Rockhall, Collin, Dumfries 1945
Morton, Alex. S., F.S.A.Scot., Victoria Street, Newton-Stewart, Wigtownshire 1915
Morton, Miss, Moat Hostel, Dumfries 1947
Morton, Mrs W. R., 2 Barnton Loan, Davidson's Mains, Edinburgh 1936
Muir, Miss Agnes, Roseville, Old Carlisle Road, Moffat ... 1947
Murray, J. L., The Knowe, Victoria Road, Dumfries ... 1945
Murray, Mrs, The Knowe, Victoria Road, Dumfries ... 1945
Murray, Miss J. J., The Schoolhouse, Drumsleet, Dumfries 1945
Murray, Miss Mary, 5 Murray Place, Dumfries 1946
Murray, William, Murray Place, Dumfries 1945
Murray-Usher, Mrs E. E., J.P., Cally, Murrayton, Gatehouse-of-Fleet 1946
Myrseth, Major O., County Hotel, Dumfries 1944
Ord, Mrs, 43 Castle Street, Dumfries 1946
O'Reilly, Mrs N., c/o Messrs Coutts & Co., 44 Strand, London, W.C.2 1926
Osborne, Mrs R. S., 54 Cardoness Street, Dumfries... ... 1946
Park, Miss Dora, Gordon Villa, Annan Road, Dumfries ... 1944
Park, Miss Mary, Gordon Villa, Annan Road, Dumfries ... 1944
Paterson-Smith, J., The Oaks, Rotchell Park, Dumfries ... 1948
Paterson-Smith, Mrs, The Oaks, Rotchell Park, Dumfries... 1948
Penman, James B., Mile Ash, Dumfries 1947
Penman, John S., Airlie, Dumfries 1947
Peploe, Mrs, North Bank, Moffat 1947
Perkins, F. Russell, Corsemalzie, Wigtown 1946

Prentice, Edward G., B.Sc., Pringleton House, Borgue, Kirkcudbright 1945
Prevost, W. A. J., Craigieburn, Moffat 1946
Pullen, O. J., B.Sc., Wallace Hall Academy, Closeburn, Dumfries 1934
Rainsford-Hannay, Col. F., C.M.G., D.S.O., Cardoness, Gatehouse-of-Fleet 1946
Rainsford-Hannay, Mrs F., Cardoness, Gatehouse-of-Fleet 1946
Rainsford-Hannay, Miss M., 107B Sutherland Avenue, London, W.9 1945
Raven, Mrs Mary E., Ladyfield Lodge, Glencaple Road, Dumfries 1946
Rawlings, J. H., Hajaliph, Rotchell Road, Dumfries ... 1947
Rawlings, Mrs, Majaliph, Rotchell Road, Dumfries ... 1947
Readman, James, at Dunesslin, Dunscore 1946
*Reid, R. C., F.S.A.Scot., Cleughbrae, Mouswald, Dumfries (President, 1933-1944) 1917
Reith, Miss Jean, 17 Catherine Street, Dumfries 1946
Richardson, George, 47 Buccleuch Street, Dumfries ... 1947
Richardson, Mrs, 47 Buccleuch Street, Dumfries 1947
Richmond, Gavin H., 55 Eastfield Road, Dumfries... ... 1947
Roan, William, 24 Lockerbie Road, Dumfries 1945
Roberts, Lambert-, Milnewood House, Park Street, Dumfries 1947
Roberts, Mrs A., Milnewood House, Park Street, Dumfries 1947
Robertson, J. P., Westwood, Edinburgh Road, Dumfries ... 1946
Robertson, Mrs J. P., Westwood, Dumfries 1933
Robertson, James, 56 Cardoness Street, Dumfries 1936
Robson, G. H., 2 Terregles Street, Dumfries 1911
Rose, Norman, 4 Murray Place, Dumfries 1946
Russell, Edward W., A.M.I.C.E., Drumwalls, Gatehouse-of-Fleet 1946
Russell, Mrs E. W., Drumwalls, Gatehouse-of-Fleet 1946
Russell, I. R., M.A., F.S.A.Scot., Park House, Dumfries... 1944
Rutherford, Dr. R. N., Oakley, Kirkcudbright 1946
Scholes, James W., 7 Langlands, Dumfries 1944
Scott, John, Milton, Beattock 1945
Scott, Thomas, 11 Rae Street, Dumfries 1948
Service, Mrs E. L., Glencaple Village, Dumfries 1932
Shaw, Dr. T. D. Stuart, Rosebank, Castle-Douglas 1946
Simpson, A. J., The Schoolhouse, Kirkconnel 1945
Sinclair, Dr. G. H., The Green, Lockerbie 1934
Smith, Adam, Holmhead, Mouswald 1946
Smith, C. D., Albert Villa, London Road, Stranraer ... 1944
Smith, E. A., M.A., Hamewith, Ardwall Road, Dumfries... 1946
Smith, F. W., Boreland of Southwick, Dumfries 1945
Smith, John, 26 Bruce Street, Lochmaben 1946

Smith, Mrs J., 26 Bruce Street, Lochmaben 1946
Spours, R. S., Rokeby, Leonard Crescent, Lockerbie ... 1948
Spours, Mrs, Rokeby, Leonard Crescent, Lockerbie ... 1948
Stewart, Alex. A., M.A., B.Sc., F.E.I.S., J.P., Schoolhouse, Gatehouse-of-Fleet 1946
Stewart, Sir E. M'Taggart, Bart., Ardwell, Stranraer ... 1912
Symington, Wm., Elmsmore, 72 Cardoness Street, Dumfries 1947
Syms, Major R. Hardy, 32 Old Queen Street, Westminster, S.W.1 1927
Taylor, James, M.A., B.Sc., The Hill, Southwick Road, Dalbeattie 1933
Telford, J. B., 5 Rosevale Street, Langholm 1936
Thomson, J. Marshall, Arnish, Pleasance Avenue, Dumfries 1945
Tindal, Mrs, Cargen, Dumfries 1948
Tomter, Andres, Ironhirst, Mouswald 1946
Tomter, Mrs, Ironhirst, Mouswald 1946
Truckell, A. E., 12 Grierson Avenue, Dumfries 1947
Urquhart, James, M.A., 5 Braehead Terrace, Rosemount Street, Dumfries 1946
Walker, Lieut.-Col. George G., D.L., Morrington, Dumfries 1926
Wallace, Robert, Durham Villa, Charnwood Road, Dumfries 1947
Watson, George, M.A., F.S.A., 8 Salisbury Crescent, Summertown, Oxford 1946
Waugh, W., Palace Knowe, Beattock 1924
Welsh, A., Noblehill School, Dumfries 1947
Williamson, Miss Joan D., Glenlochar House, by Castle-Douglas 1948
Wilson, John, M.A., Kilcoole, Rae Street, Dumfries ... 1947
Wright, Robert, Glenurquhart, Castle-Douglas Road, Dumfries 1947
Wyllie, B. K. N., Netherwood House, Dumfries 1943
Young, Arnold, Thornwood, Edinburgh Road, Dumfries ... 1946
Young, Mrs A., Thornwood, Edinburgh Road, Dumfries... 1946
Young, Miss Helen, Mouswald Grange, Collin, Dumfries... 1946
Young, Mrs W. R., Ronald Bank, Dumfries 1946

JUNIOR MEMBERS.

Anderson, Miss Elizabeth, Laneshaw, Edinburgh Road, Dumfries 1947
Armstrong, Miss Margaret, Whitefield, Gatehouse-of-Fleet 1946
Armstrong, Miss Sarah, Whitefield, Gatehouse-of-Fleet ... 1946
Black, Miss Nancy, Strathspey, Georgetown Road, Dumfries 1947
Black, Robert, Strathspey, Georgetown Road, Dumfries ... 1946
Bowden, Craig, 17 Galloway Street, Dumfries 1946
Brand, George A. M., Kilroy, Auldgirth 1945

Cameron, D. Scott, 4 Nellieville Terrace, Dumfries 1945
Campbell, Kenneth, The Schoolhouse, Drumsleet 1945
Campbell, Thomas, The Schoolhouse, Drumsleet 1945
Coid, John, Abiston, Park Road, Dumfries 1946
Dobie, Alec, Violet Bank, Dumfries 1948
Gair, John, The Delvin, Amisfield, Dumfries 1945
Garrett, Miss Isobel, Ismaree, Greystone Crescent, Dumfries 1947
Graham, W., Mossknowe, Kirkpatrick-Fleming, Lockerbie... 1947
Hay, Bruce, Strathisla, Glasgow Street, Dumfries 1947
Irvine, James, Jun., 10 Langlands, Dumfries 1945
Jack, R. Ian, Ormsary, Annan Road, Dumfries 1947
Kingan, Miss Margaret, Blairshinnoch, Kirkgunzeon, Dumfries 1946
Laurence, Malcolm T., St. Albans, New Abbey Road, Dumfries 1946
M'Cartney, Miss Olive, Beechgrove, Kirkpatrick-Durham, by Castle-Douglas 1947
M'Donald, Ian A., 30 Cardoness Street, Dumfries... ... 1946
M'Intosh, Miss Brenda, Ramornie, Terregles Street, Dumfries 1946
Mackenzie, C., 11 Victoria Street, Dumfries 1948
Manning, John, 3 Union Street, Dumfries 1947
Marshall, Robert, Burnock, English Street, Dumfries ... 1947
Martin, Miss Aileen I. M., 2 Stewart Hall Gardens, Dumfries 1946
Muir, Eric, 18 M'Lellan Street, Dumfries 1947
Murray-Usher, James N., Cally, Murrayton, Gatehouse-of-Fleet 1946
Osborne, Graham, 54 Cardoness Street, Dumfries 1946
Robertson, James J., 56 Cardoness Street, Dumfries ... 1946
Smith, Miss Edna, Moray, Rotchell Road, Dumfries ... 1946

SUBSCRIBERS.

Aberdeen University Library 1938
Dumfriesshire Education Committee, County Buildings, Dumfries (H. Somerville, M.C., M.A., Education Officer) 1944
Glasgow University Library 1947
Kirkcudbrightshire Education Committee, Education Offices, Castle-Douglas (J. Crawford, Ed.B., LL.B., Education Officer) 1944
Mitchell Library, Hope Street, Glasgow 1925
New York Public Library, 5th Avenue and 42nd Street, New York City (B. F. Stevens & Brown, Ltd., 28-30 Little Russell Street, British Museum, London, W.C.1 ... 1938
Wigtownshire Education Committee, Education Offices, Stranraer (Hugh K. C. Mair, B.Sc., Education Officer) 1943

Statement of Accounts

For the Six Months ended 31st March, 1947.

GENERAL REVENUE ACCOUNT.

RECEIPTS.

Balance on hand at 1st October, 1946—			
In Bank in Current Account...	£257 15 9		
In hands of Treasurer	3 15 5½		
		£261	11 2½
Members' Subscriptions—			
Current Year's	£92 9 6		
Arrears	2 10 6		
		95	0 0
Interests—			
On £230 3½ per cent. War Stock		4	0 6
Publications—			
Sale of "Transactions"		24	3 8
Excursions—			
'Bus Tickets and Private Car Passengers ...		20	12 6
Sundries—			
Donation		2	13 0
		£408	0 10½

PAYMENTS.

Excursions—			
Hire of 'Buses		£19	15 0
Miscellaneous Expenses—			
Scottish Regional Group Council for British Archæology—Subscription and Contribution for 1947 ...	£1 11 5		
Printing and Advertising	10 5 0		
Typing, Stationery, Postages, etc....	14 5 10½		
Lecturers' Travelling Expenses ...	3 10 3		
Caretaker	1 12 6		
Bank Commissions	0 4 0		
		31	9 0½
Balance on hand at 31st March, 1947—			
In Bank in Current Account... ...	£353 13 7		
In hands of Treasurer	3 3 3		
		356	16 10
		£408	0 10½

EXCURSION RESERVE ACCOUNT.

RECEIPTS.

Balance on hand at 1st October, 1946	£10 13 1

PAYMENTS.

Balance on hand at 31st March, 1947—	
In Bank on Deposit	£10 13 1

CAPITAL ACCOUNT.

RECEIPTS.

Balance on hand at 1st October, 1946—		
In 3½ per cent. War Stock	£218 10 0	
In Dumfries Savings Bank	270 13 3	
		£489 3 3
Life Membership Fees		22 1 0
		£511 4 3

PAYMENTS.

Balance on hand at 31st March, 1947—		
In 3½ per cent. War Stock	£218 10 0	
In Dumfries Savings Bank	292 14 3	
		£511 4 3

C. H. C. BOWDEN, Hon. Treasurer.

Dumfries, 22nd May, 1947.

We have examined the Books and Vouchers of the Dumfriesshire and Galloway Natural History and Antiquarian Society for the six months ended 31st March, 1947, and certify that the foregoing Abstract exhibits a correct view of the Treasurer's operations for that period.

W. G. M. DOBIE,
JAMES HENDERSON, } Auditors.

INDEX

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