

Vol. V

Part V.

**PROCEEDINGS
OF THE
ISLE OF WIGHT
NATURAL HISTORY
AND
ARCHÆOLOGICAL SOCIETY
FOR 1960.**

**Copies may be obtained from the Editor
price 10/- post free**

Issued December, 1961.

**Isle of Wight:
THE COUNTY PRESS, NEWPORT
2003/1961.**

Vol. V.

Part V.

**PROCEEDINGS
OF THE
ISLE OF WIGHT
NATURAL HISTORY
AND
ARCHÆOLOGICAL SOCIETY
FOR 1960.**



**Copies may be obtained from the Editor
price 10/-, post free**

Issued December, 1961.

**Isle of Wight:
THE COUNTY PRESS, NEWPORT.
2003/1961.**

CONTENTS.

| | Page |
|---|-------|
| LIST OF OFFICERS | CLXV |
| NEW MEMBERS | CLXVI |
| OBITUARIES | 167 |
| BALANCE SHEET, 1960 | 168 |
| RULES OF THE SOCIETY | 169 |
| GENERAL MEETINGS, EXHIBITIONS, AND EXCURSIONS | 173 |
| PRELIMINARY SURVEY OF THE LEPIDOPTERA OF NEWTOWN, HAM- STEAD, AND CRANMORE, BY J. LOBB | 180 |
| REPORT ON THE INVESTIGATION OF A ROUND BARROW ON ARRETTON DOWN, ISLE OF WIGHT, BY JOHN ALEXANDER | 189 |
| BIRD REPORT FOR 1960, BY J. STAFFORD, M.A., M.B.O.U.— | 205 |
| THE SONG OF THE CUCKOO, BY J. D. JONES, M.A. | 214 |
| GREAT SPOTTED WOODPECKER FEEDING ON BIRD TABLES, BY J. STAFFORD, M.A., M.B.O.U. | 216 |
| FLOWER RECORDS, 1960, BY MISS T. WHITE | 218 |
| AGRICULTURAL HISTORY OF THE ISLE OF WIGHT, BY R. H. ADAMS | 219 |
| METEOROLOGICAL REPORT FOR 1960, BY H. HOARE | 224 |

LIST OF OFFICERS.

(Elected at the Annual General Meeting, 14th January, 1961).

President :

O. H. FRAZER.

Vice-Presidents :

MISS G. BULLOCK, Binstead.
CAPT. G. C. C. DAMANT, C.B.E., R.N., East Cowes.
G. C. DUNNING, B.Sc., F.S.A., London.
A. L. HUTCHINSON, M.A., Carisbrooke.
G. F. MEW, B.E.M., C.C., Wootton.
E. W. POLLARD, B.Sc., Dorking.
D. ROBERTS, Wootton.
MRS. M. M. SEABROKE, Newtown.
V. S. WADHAM, Newport.

Councillors :

| | |
|------------------------------------|--|
| J. D. JONES, M.A., | Carisbrooke Castle Museum (<i>ex-officio</i>). |
| MRS. O. FRAZER | J. RUSSELL |
| MRS. E. M. HENRY | W. SHEPARD |
| R. J. MACHIN | J. STAFFORD, M.A. (<i>ex-officio</i>) |
| E. W. MARVIN (<i>ex-officio</i>) | S. T. WAITE (<i>ex-officio</i>) |
| MISS E. M. NEWNHAM | S. G. WHITE |
| MISS M. G. POLLARD | MISS T. WHITE (<i>ex-officio</i>) |

Secretary :

J. E. COOPER, Cliff Close, 99 Victoria Avenue, Shanklin, I.W.

Treasurer :

A. J. HENRY, The Lodge, Westhill Road, Shanklin, I.W.

Auditors :

MISS E. M. NEWNHAM, Shanklin ; S. G. WHITE, Shanklin.

Editor of Proceedings :

E. W. MARVIN, Beach House, Queen's Road, Cowes.

Bird Recorder :

J. STAFFORD, M.A., Westering, Moor Lane, Brighstone.

Flower Recorder :

MISS T. WHITE, St. Catherine's Home, Ventnor, I.W.

Conservation Officer :

S. T. WAITE, Whitewings, Queen's Road, Cowes.

(Publications sent in exchange should be addressed to the Editor as above).

NEW MEMBERS.

- CHANDLER, MRS. MARJORIE, Byde Cottage, Newtown, near Newport, I.W.
CORNEY, NORMAN, 8 Great Preston Close, Elmfield, Ryde, I.W.
COSH, MISS C., Little Rannoch, Steephill Court Road, St. Lawrence, near
Ventnor, I.W.
ELCOCK, MISS J. M., 6 Parklands Avenue, Cowes, I.W.
JACOBS, MAURICE, 35 Parkhurst Road, Newport, I.W.
JACOBS, MISS M., 35 Parkhurst Road, Newport, I.W.
JORDAN, MISS P. M., Newlyn, 16 Avenue Road, Shanklin, I.W.
LAKE, MRS. D., Wilmcote, Brighstone, I.W.
LONGFORD, MRS. G. N., Woody Bank, St. Lawrence, Ventnor, I.W.
LOWE, MRS. M. H., Courtyard House, Bembridge School, Bembridge, I.W.
MARCHANT, JOHN O., Fernleigh, Park Avenue, Ventnor, I.W.
MOORE, MRS. L. A., Meadow Cottage, Ningwood, near Yarmouth, I.W.
OAKLEY, MICHAEL DAVID, 8 Pitt Street, Ryde, I.W.
ORME, MRS. H. K., Lyndhurst, Seagrove Manor Road, Seaview, I.W.
PECK, MRS. N., Hope Cottage, Luccombe Road, Shanklin, I.W.
PREBBLE, L. C., Albert Cottage, Binstead Hill, Ryde, I.W.
PRESTON, W., 340 Park Road, Cowes, I.W.
PRESTON, MRS. M., 340 Park Road, Cowes, I.W.
QUINSMITH, G. W., Bouldnor Farm, Yarmouth, I.W.
QUINSMITH, MRS., Bouldnor Farm, Yarmouth, I.W.
SCAMMELL, MRS. H. S., Steeple Close, Milton, E. Knoyle, Salisbury, Wilts.
SEABROKE, MR. P., Marsh Farm House, Newtown, I.W.
TOOGOOD, E. F., West Wight Drug Store, Freshwater, I.W.

OBITUARY.

SIR JOHN E. THORNYCROFT, K.B.E.

For many years Governing Director and Chairman of John I. Thornycroft and Co., Ltd., of London, Southampton, and Basingstoke, who had lived in the Island for 88 years, died at his home, Steyne, Bembridge, on November 21st, 1960. His father (Sir John I. Thornycroft) had purchased the Steyne Estate about 100 years ago, and he had enlarged the area to about 360 acres, including 60 acres of what had once been the sea bed of part of the reclaimed land of Brading Haven. Sir John, following his parents' example, continued to improve the agricultural methods and buildings, and maintained the high standard of model farming which has always been associated with the Estate.

For some years he was President of the Royal I.W. Agricultural Society and was an exhibitor at the annual show at Nine Acres. Until his retirement, he was an active member of the I.W. Water Board.

Sir John had been a Member of the Society for some years, and was always keenly interested in everything connected with the countryside.

MISS VERA FISK.

Miss Vera Fisk joined the Society in 1952 and served on the Council for three years, 1955-1958.

Miss Fisk had a keen interest in all branches of Natural History and Island History, she was a regular attendant at all our meetings, and could always be relied upon to bring large numbers of specimens to any of our exhibitions or informal meetings.

Living at Apse Manor, she had an excellent opportunity for observation and she and her brother, Mr. Frank Fisk, missed very little of natural history interest which happened on their large farm, which also contains extensive woods.

Latterly Miss Fisk bravely attended meetings, although in bad health, and she is greatly missed by those who knew her.

MR. W. E. COX, C.B.E.

The death of the above-named took place on the 29th September, 1960. The late Mr. Cox was a Member of the Society, and his sister, the late Miss L. E. Cox, had also been a Member for some time, during which she resided at Bonchurch.

BALANCE SHEET, 1960.

| RECEIPTS. | | | | £ | s. | d. |
|---|-------|-------|-------|------|----|----|
| Balance brought forward | ..... | ..... | ..... | 116 | 12 | 5 |
| Subscriptions | ..... | ..... | ..... | 93 | 16 | 6 |
| Donations | ..... | ..... | ..... | 5 | 0 | 0 |
| Sale of <i>Proceedings</i> , Reprints, and Bird Reports | ..... | ..... | ..... | 10 | 0 | 0 |
| Interest on Investments and Deposit Account | ..... | ..... | ..... | 11 | 1 | 3 |
| | | | | £236 | 10 | 2 |

| EXPENDITURE. | | | | £ | s. | d. |
|--|-------|-------|-------|------|----|----|
| Printing <i>Proceedings</i> , Reprints, and Bird Reports | ..... | ..... | ..... | 76 | 10 | 10 |
| Other Printing | ..... | ..... | ..... | 6 | 7 | 3 |
| Stationery | ..... | ..... | ..... | 2 | 13 | 8 |
| Prizes (Book Tokens) | ..... | ..... | ..... | 1 | 12 | 6 |
| Hire of Rooms and Caretaker's Fees | ..... | ..... | ..... | 10 | 16 | 0 |
| Donations and Subscriptions | ..... | ..... | ..... | 11 | 0 | 0 |
| Petty Cash (including Postages) | ..... | ..... | ..... | 11 | 5 | 4 |
| Sundries | ..... | ..... | ..... | 14 | 0 | 0 |
| Balance in Hand | ..... | ..... | ..... | 115 | 10 | 7 |
| | | | | £236 | 10 | 2 |
| Investment 3½ Per Cent. War Stock (<i>par</i> value) | ..... | ..... | ..... | £322 | 15 | 3 |

Audited and found correct,

(Signed) S. G. WHITE,
E. M. NEWNHAM.
Hon. Auditors.

(Signed) A. J. HENRY,
Hon. Treasurer.

ISLE OF WIGHT NATURAL HISTORY AND ARCHAEOLOGICAL SOCIETY.

RULES.

1.—**Name.** The Society shall be called “The Isle of Wight Natural History and Archaeological Society.”

2.—**Objects.** The Objects of the Society shall be :—

- (a) To promote the study of Natural History and Archaeology, especially in relation to the Isle of Wight ;
- (b) To promote in every way possible the conservation of the flora and fauna of the Isle of Wight, and the proper preservation of all objects of special archaeological and geological interest ;
- (c) To place on record such discoveries and observations of scientific value or interest as may be considered worthy of note ;
- (d) To act in close co-operation with other Societies and Institutions, whose objects or activities are similar to those of the Society.

3.—**Scope of Activities.** In order to attain the objectives listed above, the activities of the Society shall include the making of excursions to all parts of the Island under leaders or directors ; the holding of meetings for the exchange of information, at which lectures and addresses shall be given, papers read and discussed ; the showing of films and slides ; the holding of exhibitions ; organised field work, and by any other means.

The Society shall, at such intervals as may be arranged by the Council, publish “Proceedings,” in which shall be printed, at the discretion of the Editor, such discoveries and observations made by members as may be considered worth placing on record, and issue and support such periodicals and other publications, as the interests of the Society require.

4.—**Membership.** The Society shall consist of Ordinary Members, Honorary Members, and Student Members.

5.—**Ordinary Members.** Persons of either sex, not less than 15 years of age, shall be eligible for election as Ordinary Members. As from January, 1962, the annual subscription is £1 per annum, payable in advance, and due on the 1st January in each year. This will entitle the member to attend all meetings of the Society and to receive a copy of the current issue of “Proceedings.” In the event of one Member of the Family having paid the full subscription, other Members of the Family, *i.e.*, Wife, Husband and dependent Sons or Daughters may be admitted to full membership at half the annual subscription, but only the member paying full subscription is entitled to receive a copy of “Proceedings” and notices.

A candidate for membership must forward a written application to the Secretary on a form provided for the purpose, and such application will be accepted subject to approval at the next meeting of the Council.

Any member joining after 31st August shall pay a subscription of half the annual subscription to cover the period to 31st December of that year, but such subscription shall not entitle the member to a copy of the current issue of the "Proceedings."

6.—**Resignation of Members.** Any member wishing to resign must intimate his or her intention to the Secretary before the end of the calendar year for which the subscription has been paid. Otherwise liability will be incurred for another year's subscription.

7.—**Honorary Members.** Eminent naturalists, especially such as have rendered, or are willing to render assistance to the Society by acting as referees in determining specimens, etc., shall be eligible for election as Honorary Members, such elections to take place at the Annual General Meeting.

8.—**Student Members.** Schools may be affiliated to the Society for an affiliation fee of twice the annual subscription. This will entitle interested pupils to attend the meetings of the Society as Student Members, and take part in any activities specially organised for their benefit. Each affiliated school will receive two copies of the "Proceedings," and shall be entitled to two votes at general meetings. Students not belonging to affiliated schools may make special application for reduced subscription.

9.—**Expulsion of Members.** In the event of a member making himself or herself objectionable to other members, the Council shall be empowered to expel such member from the Society, but the member concerned shall have the right of appeal to the Annual General Meeting.

10.—**Officers.** The Officers of the Society shall consist of a President, Vice-Presidents (not exceeding 15 in number), a General Secretary, one or more Assistant Secretaries as required, a Treasurer, a Conservation Officer and an Editor of "Proceedings." The work of the officers shall be entirely honorary, and any posts may be combined in one Officer if necessary.

11.—**Council.** (a) The management of the affairs of the Society shall be in the hands of a Council consisting of the Officers for the time being, nine elected members, the Curator of Carisbrooke Castle Museum and the Recorders. The Council shall hold meetings not less than three times a year, and special meetings at such other times as may be found necessary. Seven members shall form a quorum.

(b) The Council shall have power to appoint from their own body, with or without the addition of other members, the following Working Committees, to which shall be delegated such powers and duties as may be laid down by Council in Standing Orders for those Committees:—

- (1) Meetings Committee—to arrange the future programme for submission and approval by the Council.
- (2) Conservation Committee—to assist the Conservation Officer in the conservation of the flora and fauna.

- (3) Publication and Library Committee—to assist the Editor of “Proceedings,” and submit reports of meetings, excursions and exhibitions to the Press. One member of this committee shall be appointed as Librarian, to be responsible for the Society’s books, documents, and other records in the County Seely Library, or wherever they may be.
- (4) Field Activities Committee—to organise and control field activities.
- (5) Junior Activities Committee—to organise activities especially for Student Members.

(c) The Council may also appoint from their own body, with or without the addition of other members, such Special Committees as they may determine, and shall define all duties and powers of such committees and the number of members to form a quorum thereof, and may delegate any of their powers and duties to such committees, provided there is a two-thirds majority vote of those present, and subject to annual confirmation.

(d) The President, General Secretary and Treasurer shall be *ex-officio* members of all Working and Special Committees.

12.—**Recorders.** The Council may appoint, as required, any members of the Society that they may consider suitable, to act as Official Recorders, and the appointments may be cancelled at the discretion of the Council. The Recorders shall be *ex-officio* members of the Council, and all records submitted in confidence shall only be made public with the agreement of those concerned and at the discretion of the Recorder.

13.—**Election of Officers and Council.** The President shall be elected for a term of three years, and shall not be eligible for immediate re-election. The Vice-Presidents and other Officers shall retire annually, but shall be eligible for re-election. The elected members of the Council shall remain in office for three years, after which they shall retire, and shall not be eligible for re-election until one year has elapsed. The Council shall have power to fill any casual vacancy which may occur in its number until the next Annual General Meeting.

14.—**Meetings.** The General Meetings of the Society shall be held from time to time as arranged by the Council. A circular shall be sent to each member containing information as to Meetings, Excursions, etc., to be held during the ensuing session. The General Secretary shall keep a Minute Book, and enter therein an account of the proceedings at all business meetings of the Society.

15.—**Annual General Meeting.** An Annual General Meeting shall be held in the month of January, at which the reports of the Secretary and Treasurer will be submitted for approval, and the election of Officers and Members of the Council for the ensuing year will take place. Twenty members shall form a quorum.

16.—**Accounts.** The Accounts of the Society shall be audited by two members, who shall be elected at the Annual General Meeting.

17.—**Chairman at Meetings.** The President, or in his absence one of the Vice-Presidents, shall preside at all meetings of the Society. In the

event of the incapacity of the President, the Council shall elect one of the Vice-Presidents as Acting President until the next Annual General Meeting.

18.—**Visitors.** Any member may introduce a visitor at any meeting or excursion of the Society, but such privilege must not be extended to any one visitor on more than two occasions in the course of the same year.

19.—**Alteration of Rules.** Alteration of the Rules shall only be made at the Annual General Meeting. Notice of any alteration to be proposed must be forwarded to the Secretary, in writing, 21 days at least before the meeting, and a copy of such proposal shall be sent to each member prior to the meeting.

GENERAL MEETINGS, EXHIBITIONS AND EXCURSIONS.

General Meeting held on Saturday 13th February, 1960.

Mr. G. F. Mew, B.E.M., C.C., in the chair.

Over 50 members attended a showing of natural history films. The programme was arranged by the President, who introduced the films and also acted as projectionist.

The first film, entitled "Farm under Water," gave a detailed account of the management of the oyster fisheries at Helford, in Cornwall, of special interest to those who look forward to the re-establishment of the oyster fisheries at Newtown.

The second film was devoted to "British Crows," and showed examples of all the members of this family in colour.

The third film, entitled "Treasure Trove," most ingeniously showed how the rocks, rich in mineral treasure, may have been formed in the holocaust of the new-born earth, and how they have been altered time and again throughout the ages. Details of the methods by which these minerals are recovered from the earth by quarrymen and miners were shown, and how they are changed by chemists into a multitude of things to enrich our lives.

The final film, only recently produced, was on the "Seashore," giving a most interesting account of the animals and plants to be found there, and the ways in which they are specially adapted to overcome the hazards of their environment.

The Chairman thanked the President for a most interesting programme.

Informal Meeting held on Friday 4th March, 1960.

Subject for discussion—Botany.

Miss T. White, the Flower Recorder, reported on the progress of the national scheme for mapping the distribution of plants, in which a number of members are taking part. She mentioned some items on which further information was required.

A discussion ensued on a possible adaptation of this scheme to suit local needs, and permit a more detailed mapping of the plants in the Island.

Members showed a keen interest in a display of 25 species of wild flowers in bloom, collected at Newtown by Mrs. M. M. Seabroke.

General Meeting held on Saturday 12th March, 1960.

The President in the Chair.

Mr. J. Lobb gave an interesting lecture on the habits of butterflies and moths, which he has been studying for over 40 years.

His talk was enhanced by a number of varied and interesting exhibits, including a coloured drawing of a new variety of the Pearl-bordered Fritillary, which Mr. Lobb discovered in Parkhurst Forest and presented to the British Museum.

Informal Meeting held on Friday 1st April, 1960.

Subject for discussion—Ornithology.

Members discussed happenings in the last few months and activities for the coming summer. Particular interest was shown in reports of the new habit of the Great Spotted Woodpecker of feeding on bird tables. About 15 instances of this had been noted.

Plans were made to collect information for two national enquiries into the habitat of the Lapwing and the killing of birds by road traffic.

Records submitted by members are embodied in the Bird Report.

General Meeting held on Saturday 9th April, 1960.

The President in the Chair.

Mr. G. J. Lawrence, B.Sc., gave a most informative talk on "Bird Photography."

Since coming to the Island several years ago Mr. Lawrence has devoted much of his time to photographing birds in the Newtown area, with results which have been widely enjoyed and admired, but this talk dealt only with his earlier work in other parts of the country.

He showed and commented on several sequences of slides depicting the Sparrowhawk, Nightjar, Jay, Heron, and Reed Warbler. Those of the last-named were used to illustrate a book on this species. He emphasised that it is not essential to have elaborate equipment to take successful photographs of birds.

A report was read on the fortnightly meetings held at Newtown during the winter, prepared by Mrs. M. M. Seabroke, who was unable to be present owing to illness.

Visit to Guildford on Saturday 21st May, 1960.

Leader, the President.

A small party of members visited the Ellis Research and Testing Laboratories at Albury, near Guildford, where, under the direction of Mr. E. H. Ellis, the Society's expert on fungi, valuable industrial research is carried on in an old flour mill dating back to 1780.

The work of the laboratories is fundamentally to provide a scientific service for industry, and its research and testing facilities are used by many famous industrial concerns. Its link with natural history was somewhat remote, but the range of researches did include such

things as the effects of tropical exposure on aircraft instruments and micro-biological decay. Other aims are the reduction of industrial hazards and atmospheric pollution, the production of road safety aids, and investigation of failures in building materials. Particularly interesting tests were being carried out in connection with the safety of domestic appliances.

The President thanked Mr. Ellis and his staff for a most interesting and enjoyable visit.

Excursion to Hamstead on Sunday 19th June, 1960.

Leader, the President.

A large party gathered at Hamstead for a walk along the coast and neighbouring fields, by kind permission of Lt.-Col. C. R. H. Kindersley. The President pointed out a varied selection of interesting features, including the exposure of the Hamstead series of strata, and the mud "glacier," which continually yields a wealth of interesting fossils as its lower end is eroded by the sea.

The party also saw some of the hides which had been erected for observation and photography at the nests of oystercatcher, ringed plover, and stoat, and particularly admired the remarkable camouflage of the oystercatcher's eggs laid on the shingle.

Excursion to Bleak Down on Saturday 23rd July, 1960.

Leader, Mr. W. Shepard.

There was a large attendance. The leader first conducted the party round to give them a brief introduction to the area, after which they divided into small parties to make a more thorough search. Most attention was devoted to plants, and the finds included great bur-reed, caper spurge, evidently brought here in garden waste, as it was on the fringe of the rubbish tip, which is gradually extending over the area, sundew, marsh cinquefoil, dodder, royal fern, and hard fern.

Other members spent an interesting time studying the life in the numerous ponds. The water, which is only retained on the top of the down by the underlying clay, contains no trace of chalk, unlike other pools in the Island. As a result of the difference in the chemical composition a varying selection of creatures is to be found inhabiting these ponds.

Excursion to Freshwater High Down and Marsh on Saturday 20th August, 1960.

Leaders, the President and Mrs. O. H. Frazer.

A large party assembled at Freshwater Bay and walked up Freshwater Down to Tennyson's Monument. It was noted how several species of plants, which grow to normal size at the foot of the down, are replaced in the higher and more exposed situations by dwarf forms. The dwarf Capitata Centaury, however, a rather uncommon and inconspicuous plant found on the higher ground, is in another category, as this is a completely distinct species from the common centaury.

The return journey was made along the foot of the down, and the party then visited the marsh, where a totally different range of interesting plants were seen.

Excursion to Brook on Saturday 3rd September, 1960.

Leader, the President.

A large party of members took advantage of the very low tide to explore the foreshore at Brook. Many varied specimens were found, including two Portuguese Men-o'-war, four different species of crabs, coat-of-mail shells, and many other molluscs, and several kinds of seaweeds.

After the incoming tide had driven the party from the lowest part of the beach, the specimens were displayed and examined in the Old Lifeboat House by permission of Capt. Mason Scott. Also on display was a selection of Island Shells from the fine collection of Mr. Prebble, of Binstead, with which members were able to compare and identify their own finds. After tea all living specimens were returned to the sea.

Visit to Yarmouth Castle on Saturday 1st October, 1960.

Leader, Mr. J. Jones, M.A., Curator of Carisbrooke Castle Museum.

Despite the bad weather and many blocked roads, there was a fairly good attendance.

The leader gave a brief outline of the Castle's history, and the official Custodian described the structure of the building itself. The members then divided into two groups to examine the building in more detail.

The party later crossed the Square to the church to see the statue of Sir Robert Holmes, the colourful Captain of the Island, who was so closely associated with Yarmouth and its Castle.

Exhibition of Fungi on Saturday 29th October, 1960.

The President in the chair.

There was a large and enthusiastic attendance at the almost traditional annual fungus foray. Having previously collected fungi in various parts of the Island, members brought them to the Priory Girls' School, Newport, for identification and display.

Mr. E. H. Ellis, the Society's expert on fungi from Guildford, assisted with the identification of the specimens, as in previous years, and they were then labelled and displayed by girls from the Carisbrooke Grammar School and the Priory Secondary Girls' School.

Later Mr. Ellis commented on some of the specimens. Due to the wet autumn certain families of fungi had grown much earlier in the season than usual, and these were notable absentees from the collection. Nevertheless, 93 different species were displayed, including the following, which had not previously been recorded in the Island :—

Hymenomycetes : *Psilocybe elongata*.
Mycena inclinata.
Coprinus picaceus.
Marasmius androsaceus.

The Society was honoured by the presence at this meeting of Lord Hurcomb, G.C.B., K.B.E., the President of the Council for Nature.

Informal Meeting held on Friday 4th November, 1960.

Subject for discussion—Botany.

Under the leadership of Miss T. White plans were made to co-operate in obtaining information for a new Flora of Hampshire, which is to be published. Several members undertook to help with this in their own localities, but more are still needed.

Some rare plants found in the Island this year were mentioned, including the Man Orchid and double Cinquefoil. Mrs. D. Frazer also showed a sketch of the pink-flowered bindweed, *Calystegia pulchra*, recorded for the first time in the Island.

Information was requested about the distribution of different species of Cuckoo-pint, in connection with a national enquiry.

General Meeting held on Friday 18th November, 1960.

The President in the chair.

Mr. S. T. Waite gave a most instructive and enjoyable talk on "Oil and Oil Finding." The speaker, who was for many years a chief geologist to the Shell Oil Company, recently retired to the Island. His search for oil took him to many parts of the world, and in his talk he gave his listeners the benefit of his wide experience and expert knowledge. The talk was admirably illustrated by a coloured film made by Mr. Waite in Trinidad, which depicted the various stages of searching and drilling for oil.

In thanking the speaker, the President expressed the hope that Mr. Waite's inspiration would revive interest in geology among members of the Society.

Informal Meeting held on Friday 2nd December, 1960.

Subject for discussion—Ornithology.

Records were discussed and are embodied in the Bird Report.

General Meeting held on Saturday 10th December, 1960.

The President in the chair.

This meeting was held at Carisbrooke Castle. Mr. J. Jones, M.A., Curator of the Carisbrooke Castle Museum, gave a most instructive talk on the "Treatment of Archaeological Finds." He described the various measures taken by archaeologists to preserve the objects they discover, either to repair damage or to prevent deterioration. The methods vary from simply brushing away the dirt to elaborate and subtle chemical methods. Several objects selected from the museum's collection were displayed to demonstrate some of the procedures mentioned, and a filmstrip was also shown.

Annual General Meeting held on Saturday 14th January, 1961.

The President in the chair.

In his opening address the President reviewed some of the notable events of the past year and referred to the wide variety of activities undertaken by the Society. There had been meetings on many subjects, both indoor and outdoor, and a further survey at Newtown had been carried out in the summer. The Society had also played its part in the formation of the Hampshire and Isle of Wight Naturalists' Trust, and in close co-operation with the Nature Conservancy much valuable work had been done by the Society's provisional Conservation Officer, Mr. S. T. Waite, in connection with several important areas which were being threatened in various ways.

The Society suffered the great loss during the year of two valuable members, Miss Vera Fisk and Sir John Thornycroft. Obituary notices will be found elsewhere in these *Proceedings*. Members stood in silent tribute.

The meeting agreed to the adoption of Revised Rules, as published elsewhere in these *Proceedings*.

The Officers were re-elected with the addition of Mr. S. T. Waite as Conservation Officer, and Mr. E. W. Marvin as Editor of *Proceedings*. Mrs. M. M. Seabroke was elected as Vice-President, and Mrs. D. Frazer, Mrs. I. Gaskin, Miss E. M. Newnham, Miss G. Pollard, and Mr. W. Shepard were elected as members of the Council to replace those who were retiring after three years.

Mr. S. T. Waite, Conservation Officer, reported on the work he had been doing since his provisional appointment several months before, and the need for close vigilance was clearly demonstrated.

The proposed purchase of the Newtown Estuary by the National Trust was discussed, and suggestions were made for raising money for the Society's share of the cost.

The thanks of the Society were expressed by the President to the Education Committee and the Head Mistress of the Priory Secondary Girls' School for the use of rooms, and to the *County Press* for their co-operation.

Tea was served by Mrs. Frazer and helpers, during which members took part in a botanical quiz. Book tokens for the highest marks were won by Miss G. Bullock, Mr. R. A. S. Wyatt, and Janet Beazley

A PRELIMINARY SURVEY OF THE LEPIDOPTERA OF NEWTOWN, HAMSTEAD AND CRANMORE.

By JOHN LOBB.

In connection with the survey carried out by members of the Society of the Newtown area a preliminary survey of the Lepidoptera was started from March, 1960, to the end of the year and included Hamstead and Cranmore, as the three areas are closely linked. The whole area has not been greatly worked by entomologists in the past, and as it is natural and unspoiled there are possibilities of the existence of many lepidopterous rarities. The results of the preliminary survey have now confirmed this and point a good leader to what the future may produce.

Two interesting discoveries resulted from the survey, the first finding the larvae of *Lithophane leautieri*, Boisd., in the wild state, the only record for the British Isles, as far as can be ascertained; and, secondly, finding the larvae of *Caleptilia pyrenaella*, Chret., only once recorded in the British Isles by the late Mr. L. T. Ford (1933), a great expert on the micro-moths. In each case the larvae were sent to Mr. Wakely, of the South London Entomological Society, who successfully bred out the perfect insects, and I take this opportunity to express my thanks to Mr. Wakely for the invaluable help and advice received when on the survey.

Blair's Pinion, previously known as *Lithophane lapidea* and now recognised as *L. leautieri*, Boisd., was first discovered by Dr. Blair at Freshwater on October 26th, 1951 (Ref. Entomologist, Vol. 90, N. 1124, Jan., 1957). Since that time the moth has been taken each year in the West Wight and has been bred successfully in captivity, but attempts to find the wild larvae had proved negative. One of my main objects for 1960 was to unravel this enigma, and to this end all the material on its life history on the Continent was studied. The first attempt was made during the second week of May, 1960. A *Cupressus macrocarpa* tree, about 15 feet high, was selected as it was standing on its own with groups of others in the area. Beating by the usual method and using a tray after dark at 10 p.m., B.S.T. with a torch for inspection proved negative. After several unsuccessful forays by this method hopes for success greatly diminished. Then it occurred to me that the larvae may be top-feeders, preferring the young tender growth at the top of the tree. Due to the pyramidal shape of these trees beating and using a tray had to be abandoned, and in its place a full-sized sheet was spread under the tree, and a carpet beater lashed to a long pole was used. It was necessary to tap the top branches and follow the action through the lower ones at once to keep the larvae on the move, as once they grip with their claspers they cannot be dislodged. This proved to be hard work and not without its highlights, such as showers of spiders and

predators of many orders coming down on the operator from above and, a mass of foliage and flowers on the sheet, which had to be inspected. At the third attempt on May 21st two small larvae, about half an inch long, were sorted out from the mass of debris on the sheet and jubilation set in, for at that time I had no knowledge of any other lepidopterous larvae feeding on *macrocarpa*, and Mr. Wakely soon wrote to confirm that they were leautieri. In breeding out this insect Mr. Wakely found the larvae favoured the young growth and also juniper (Ref. Entomologists' Record, Vol. 73, No. 1, Jan., 1961). Only one reached the perfect state and emerged on September 24th, 1960, the other having been parasitised. About this time I took my first specimen of the moth in the light trap and eventually several more. Many attempts to find the full-grown larvae failed, but two larvae of the Dunbar Moth, *Cosmia trapezina*, L., a noted cannibal, were found on the sheet and had certainly been beaten from the *cupressus*.

The other interesting discovery concerns a rare micro-moth, *Caloptilia pyrenaecella*, Chret. The late Mr. L. T. Ford was on holiday in the Island in early June, 1933. He was collecting maple cones, which are the leaves of the maple rolled over in the form of a neat cone and fastened by silken threads by the larvae of a micro-moth, *Gracillaria semifascia*, Hw. On breeding out these moths later he was very surprised to find nine specimens of *C. pyrenaecella* (Ref. Entomologist, 1933, p. 230). This was the only record of this species in the British Isles until it was rediscovered in 1960. As the area under survey contains quite a lot of maple, it was decided to try and rediscover this species. I was successful in finding some cones, but due to a misunderstanding over the date it seemed to be too late for *pyrenaecella*. On 2nd July a number of cones were sent off to Mr. Wakely without much hopes for success, but much to our surprise one specimen of *pyrenaecella* emerged on July 18th, 1960. This must have been on one of the leaves in the pupa stage. Another parcel of cones sent away on September 13th, 1960, all produced *G. semifascia*, and this seemed to point to a second brood of this species, at least in the Isle of Wight. More *G. semifascia* were bred out in the I.W., the last emerging during the first week in October.

Another interesting point arising from the survey was taking 14 specimens of the Kent Black Arches Moth, *Nola albula*, Schiff., at light during July. At one time this pretty little moth was quite a rarity, but of late years it has frequently been taken in ones and twos.

On September 18th I received a specimen, in badly worn condition, of the Convolvulus Hawk Moth, *Herse convolvuli*, L., from Mr. A. J. Henry. The same evening one entered my light trap, again in a very poor condition. A few days later Mr. Henry sent a record of one more from Shanklin. With reports from the journals, it seems certain that there was an incoming migration during September, having evidently struggled through the shocking weather conditions which were experienced throughout the year.

The following is a list of all the species taken within the survey area, and this will be added to from time to time :—

PIERIDAE

PIERINAE

(Whites)

- Pieris brassicae** L.
Large Garden White
Pieris rapae L.
Small Garden White
Pieris napi L.
Green-veined White
Anthocharis cardamines L.
Orange-tip White

RHODOCERINAE

(Redhorns or Sulphurs)

- Colias croceus** Fourc.
(*edusa* F.)
Common Clouded Yellow
Gonepteryx rhamni L.
Brimstone

SATYRIDAE

SATYRINAE

(Satyrs)

- Pararge megera** L.
Wall Brown
Pararge aegeria L.
Speckled Wood
Eumenis semele L.
Grayling
Maniola jurtina L.
(*janira* L.)
Meadow Brown
Maniola tithonus L.
Gatekeeper
Coenonympha pamphilus L.
Small Heath
Aphantopus hyperantus L.
Common Ringlet
Melanargia galathea L.
Marbled White

LIMENITINAE

(Sibyls or Wood-admirals)

- Limenitis camilla** L.
(*sybylla* L.)
White Admiral

NYMPHALINAE

(Vanessids or Angle-wings)

- Vanessa atalanta** L.
Red Admiral
Vanessa cardui L.
Painted Lady
Nymphalis io L.
Peacock
Nymphalis polychloros L.
Large Tortoiseshell
Aglais urticae L.
Small Tortoiseshell
Polygonia c-album L.
Comma

ARGYNNINAE

(Fritillaries)

- Argynnis paphia** L.
Silver-washed Fritillary
Argynnis cydippe L.
(*adippe* L.)
High Brown Fritillary
Argynnis niobe L.
Niobe Fritillary
Argynnis aglaia L.
Dark Green Fritillary
Clossiana euphrosyne L.
Large Pearl-bordered Fritillary
Clossiana selene Schiff.
Small Pearl-bordered Fritillary
Melitaea cinxia L.
Glanville Fritillary
Euphydryas aurinia Rott.
(*atemis* Schiff.)
Marsh Fritillary

NEMEOBIIDAE

NEMEOBIINAE

(Dukes)

- Hamearis lucina** L.
Duke of Burgundy

LYCAENIDAE

THECLINAE

(Hairstreaks)

- Thecla betulae** L.
Brown Hairstreak

Thecla quercus L.
Purple Hairstreak

Callophrys rubi L.
Green Hairstreak

LYCAENINAE
(*Coppers*)

Lycaena Phlaeas L.
Small Copper

POLYOMMATINAE
(*Blues*)

Aricia agestis Schiff.
(*astrarche* Bergst.)

Brown Argus Blue

Polyommatus icarus Rott.
Common Blue

Celastrina argiolus L.
Holly Blue

HESPERIIDAE

PYRGINAE

(*Black-and-white Skippers* or
Grey Skippers)

Pyrgus malvae L.
Grizzled Skipper

Erynnis tages L.
Dingy Skipper

HESPERIINAE
(*Brown Skippers*)

Thymelicus sylvestris Poda
(*thaumas* Hufn.)

Common Small Skipper

Ochlodes venata Br. & Grey
(*sylvanus* Esp.)

Large Skipper

Super-family SPHINGOIDEA

SPHINGIDAE

SMERINTHINAE

Laothoe populi L.
Poplar Hawk

Smerinthus ocellata L.
Eye Hawk

SPHINGINAE

Herse convovuli L.
Convolvulus Hawk

Sphinx ligustri L.

Privet Hawk

Hyloicus Pinastri L.

Pine Hawk

DEILEPHILINAE

Deilephila porcellus L.

Small Elephant Hawk

Deilephila elpenor L.

Large Elephant Hawk

MACROGLOSSINAE

Macroglossum stellatarum L.

Humming-bird Hawk

Hemaris fuciformis L.

Broad-bordered Bee Hawk

Super-Family BOMBYCOIDEA

NOTODONTIDAE

CERURINAE

Harpyia furcula Clerck

Sallow Kitten

Cerura vinula L.

Puss

NOTODONTINAE

Stauropus fagi L.

Lobster Prominent

Chaonia ruficornis Hufn.

(*chaonia* Hübn.)

Lunar Marbled Brown

Pheosia tremula Clerck

Greater Swallow Prominent

Pheosia gnoma F.

(*dictaeoides* Esp.)

Notodonta ziczac L.

Pebble Prominent

Notodonta dromedarius L.

Iron Prominent

Notodonta tritophus Schiff.

(*phoebe* Sieb.)

Three-humped Prominent

Notodonta trepida Esp.

(*anceps* auct.)

Great Prominent

Lophoteryx cucullina Schiff.

(*cuculla* Esq.)

Maple Prominent

Lophoteryx capucina L.
(*camelina* L.)
Coxcomb Prominent
Ptilophora plumigera Schiff.
Plumed Prominent
Pterostoma palpina Clerck
Pale Prominent
Phalera bucephala L.
Buff-tip
Clostera curtula L.
Large Chocolate-tip

THYATIRIDAE

THYATIRINAE
Habrosyne pyritoides Hufn.
(*derasa* L.)
Buff Arches
Thyatira batis L.
Peach Blossom
Tethea ocularis L.
(*octogesima* Hübn.)
Figure of Eighty
Polyptoca ridens F.
Frosted Green Lutestring

LYMANTRIIDAE

LYMANTRIINAE
Orgyia antiqua L.
Common Vapourer
Dasychira pudibunda L.
Pale Tussock
Eurproctis similis Fuessl.
Gold-tail

LASIOCAMPIDAE

LASIOCAMPINAE
Malacosoma neustria L.
Common Lackey
Trichiura crataegi L.
Pale Eggar
Poecilocampa populi L.
December Eggar
Lasiocampa quercus L.
Oak Eggar
Macrothylacia rubi L.
Fox
Philudoria potatoria L.
Drinker

GASTROPACHINAE
Gastropacha quercifolia L.
Common Lappet

BOMBYCIDAE

BOMBYCINAE

SATURNIIDAE

SATURNIINAE
Saturnia pavonia L.
(*carpini* Schiff.)
Empress

DREPANIDAE

DREPANINAE
Drepana binaria Hufn.
Oak Hook-tip
Drepana cultraria F.
Barred Hook-tip
Drepana falcataria L.
Pebble Hook-tip
CILICINAE
Cilix glaucata Scop.
Chinese Character

NOLIDAE

NOLINAE
Nola albula Schiff.
(*albulalis* Hübn.)
Kent Black Arches

ARCTIIDAE

LITHOSIINAE
Atolmis rubricollis L.
Red-necked Footman
Miltochrista miniata Forst.
Rosy Footman
Cybosia mesomella L.
Four-dotted Footman
Eilema deplana Esp.
(*depressa* Esp.)
Buff Footman
Eilema griseola Hübn.
(*stramineola* Doubl.)
Dingy Footman
Eilema lurideola Zinck.
Common Footman

ARCTIINAE

Callimorpha jacobaeae L.

Cinnabar

Spilosoma lutea Hufn.*(lubripeda* auct.)

Buff Ermine

Phragmatobia fuliginosa L.

Ruby Tiger

Parasemia plantaginis L.

Wood Tiger

Arctia caja L.

Garden Tiger

Arctia villica L.

Cream-spot Tiger

HYPSINAE

Panaxia dominula L.

Scarlet Tiger

Super-Family PSYCHOIDEA

ZYGAENIDAE

ZYGAENINAE

Zygaena trifolii Esp.

Broad-bordered Five-spot

Burnet

Zygaena filipendulae L.

Narrow-bordered Six-spot

Burnet

PROCRINAE

Procris statices L.

Common Forester

SESIIDAE

AEGERIINAE

Aegeria tipuliformis Clerck

Currant Clearwing

Aegeria flaviventris Staud.

Sallow Clearwing

Dipsosphecia scopigera Scop.*(ichneumoniformis* Schiff.)

Six-belted Clearwing

COSSIDAE

COSSINAE

Cossus cossus L.*(ligniperda* F.)

Goat

Super-family HEPIALOIDEA

HEPIALIDAE

HEPIALINAE

Hepialus humuli L.

Ghost Swift

Hepialus lupulina L.

Common Swift

Super-family NOCTUODIEA

NOCTUIDAE

AGROTINAE

Euxoa nigricans L.

Garden Dart

Euxoa tritici L.

White-line Dart

Agrotis segetum Schiff.

Turnip Dart

Agrotis clavis Hufn.*(corticea* Schiff.)

Heart and Club

Agrotis exclamationis L.

Heart and Dart

Ochropleura plecta L.

Flame Shoulder

Amathes glareosa Esp.

Autumnal Rustic

Amathes c-nigrum L.

Setaceous Hebrew Character

Naenia typica L.

Gothic Type

NOCTUINAE

Euschesis orbona Hufn.*(subsequa* Hübn.)

Lunar Yellow-underwing

Euschesis janthina Schiff.

Lesser-bordered Yellow-

underwing

Euschesis interjecta Hübn.

Least Yellow-underwing

Noctua pronuba L.

Common Yellow-underwing

Lampra fimbriata Schreber*(fimbria* L.)

Broad-bordered Yellow-

underwing

HELIOTHINAE

Periphanes delphinii L.

Pease-blossom

Pyrrhia umbra Hufn.*(marginata* F.)

Bordered Orange

Heliothis peltigera Schiff.

Dark Bordered Straw

ANARTINAE

Anarta myrtilli L.

HADENINAE

Polia nebulosa Hufn.

Grey Arches

Cerateryx graminis L.

Antler

ORTHOSIINAE

Orthosia gothica L.

Common Hebrew Character

Orthosia stabilis Schiff.

Common Quaker

LEUCANIINAE

Leucania pallens L.

Common Wainscot

Leucania litoralis Curt.

Shore Wainscot

Leucania l-album L.

White L Wainscot

NONAGRIINAE

Arenostola pygmina Haw.*(fulva* Hübn.)

Small Wainscot

CARADRININAE

Laphygma exigua Hübn.

Small Mottled Willow

APAMEINAE

Apamea lithoxylaea Schiff.

Common Light Arches

Apamea monoglypha Hufn.*(polyodon* L.)

Dark Arches

Phlogophora meticulosa L.

Large Angle-shades

AMPHIPYRINAE

Cosmia trapezina L.

Dun-bar

Panemeria tenebrata Scop.*(arbuti* F.)

Small Yellow Underwing

APATELINAE

Apaele megacephala Schiff.

Poplar Dagger

Apatele psi L.

Grey Dagger

CUCULLIINAE

Cucullia verbasci L.

Mullein Shark

XYLENINAE

Lithophane semibrunnea Haw.

Tawny Pinion

Lithophane leautieri Boisd.

Blair's Pinion

DASYPOLIINAE

Brachionycha sphinx Hufn.*(cassinia* Schiff.)

Common Sprawler

Aporophyla lunula Stroem*(nigra* Haw.)

Black Rustic

Griposia aprilina L.

Common Merveille-du-jour

Tiliacea citrago L.

Orange Sallow

Cirrhia icteritia Hufn.*(fulvago* L.)

Common Sallow

Cirrhia gilvago Schiff.

Dusky-lemon Sallow

Conistra vaccinii L.

Common Chestnut

HYLOPHILIDAE

WESTERMANNIINAE

Bena prasinana L.*(fagana* F.)

Green Silver-lines

Pseudoips bicolorana Fuessl.*(quercana* Schiff.)

Scarce Silver-lines

PLUSIIDAE

EUSTROTIINAE

CATOCALINAE

Catocala nupta L.

Red Underwing

Catocala promissa Schiff.
Light Crimson Underwing

Euclidimera mi Clerck
Mother Shipton

Ectypa glyphica L.
Burnet Companion

PANTHEINAE

Episema caeruleocephala L.
Figure of Eight

PLUSIINAE

Plusia chrysitis L.
Common Burnished Brass

Plusia festucae L.
Gold Spot

Plusia ni Hübn.
(*brassicae* Ril.)
Silver V

Plusia gamma L.
Common Silver Y

GONOPTERINAE

Scoliopteryx libatrix L.
Herald

HYPENINAE

Hypena proboscidalis L.
Common Snout

Super-family GEOMETROIDEA

GEOMETRIDAE

ARCHIARINAE

Chlorissa viridata L.
Small Grass Emerald

Jodis lactearia L.
Little Emerald

STERRHINAE

Cosymbia pendularia Clerck
(*orbicularia* Hübn.)

Dingy Mocha

Sterrha straminata Borkh.
(*inornata* Haw.)

Plain Wave

Rhodometra sacraria L.
Vestal

LARENTIINAE

Xanthorhoe fluctuata L.
Garden Carpet

Epirrhoe rivata Hübn.
Wood Carpet

Mysticoptera sexalata Retz.
(*sexalisata* Hübn.)

Small Seraphim

Eupithecia valerianata Hübn.
Valerian Pug

Eupithecia centaureata Schiff.
(*oblongata* Thunb.)

Lime-speck Pug

Eupithecia absinthiata Clerck
(*minutata* Schiff.)

Wormwood Pug

Eupithecia vulgata Haw.
Common Pug

Eupithecia castigata Hübn.
Grey Pug

DEILINIINAE

Abraxas grossulariata L.
Common Magpie

Erannis defoliaria Clerck
Mottled Umber

ENNOMINAE

Ennomos quercinaria Hufn.
(*angularia* Hübn.)

August Thorn

Deuteronomos erosaria Schiff.
September Thorn

Selenia bilunaria Esp.
(*illunaria* Hübn.)

Early Thorn

Apeira syringaria L.
Lilac Thorn

Plagodis dolabraria L.
Scorched-wing

Epione repandaria Hufn.
(*apiciaria* Schiff.)

Common Bordered-beauty

Pseudopanthera macularia L.
Speckled Yellow

OURAPTERYGINAE

Ourapteryx sambucaria L.
Swallow-tailed Elder

BISTONINAE

Phigalia pedaria F.
(*pilosaria* Schiff.)

Pale Brindled-beauty

- Apocheima hispidaria** Schiff.
Small Brindled-beauty
- Lycia hirtaria** Clerck
London Brindled-beauty
- Biston strataria** Hufn.
(*prodromaria* Schiff.)
Oak Brindled-beauty
- Biston betularia** L.
Pepper-and-salt
- BOARMIINAE**
- Menophra abruptaria** Thunb.
Waved Umber Beauty
- Alcis repandata** L.
Mottled Beauty
- Isturgia limbaria** F.
(*conspicua* Schiff.)
Frosted Yellow
- Ematurga atomaria** L.
Common Heath Beauty
- Chiasmia clathrata** L.
Heath Lattice
- Aspitates ochrearia** Rossi
(*citraria* Hübn.)
Yellow Belle
- Super-family PYRALOIDEA
- PHYCITIDAE**
Nephopteryx genistella Dup.
- GALLERIIDAE**
Aphomia sociella L.
- CRAMBIDAE**
Crambus uliginosellus Zell.
Crambus pratellus L.
Crambus hortuellus Hueb.
Crambus pinellus L.
Crambus perlellus Scop.
Crambus geniculeus Haw.
Crambus tristellus Schiff.
- PYRAUSTIDAE**
Notarcha ruralis Scop.
Eurrhypara hortulata L.
Phlyctaenia coronata Hufn.
Mecyna asinalis Hueb.
- PYRALIDIDAE**
Endotricha flammealis Schiff.
- ALUCITIDAE**
Platyptilia gonodactyla Schiff.
- Stenoptilia pterodactyla** L.
Agdistis bennetii Curt.
Alucita pentadactyla L.
- Super-family TORTRICOIDEA
- TORTRICIDAE**
Cacoecia operana L.
Cacoecia rosana L.
Tertrix viridana L.
- EUCOSMIDAE**
Siloneta ocellana Schiff.
- Super-family TINAEOIDEA
- GELECHILDAE**
Platyedra vilella Zell.
Platyedra malvella Hueb.
Phthorimaea obsoletella Fisch.
Phthorimaea plantaginella
Stain.
- COSMOPTERIGIDAE**
Mompha fulvescens Haw.
- DECOPHORIDAE**
Oecophora geoffrella L.
Depressaria badiella Hueb.
Depressaria costosa Haw.
Depressaria arenella Schiff.
- ORNEODIDAE**
Orneodes hexadactyla L.
- ELACHISTIDAE**
Elachista scirpi Stain.
Elachista rufocinerea Haw.
- COLEOPHORIDAE**
Coleophora currucipennella
Zell.
Coleophora discordella Zell.
Coleophora argentula Steph.
Coleophora alticolella Wood.
Coleophora glaucicolella Wood.
Coleophora caispitiella Zell.
Coleophora fuscadinella Zell.
- GRACILLARIIDAE**
Gracillaria semifascia Haw.
Caloptilia pyrenaecella Chret.
- PLUTELLIDAE**
Ypsolophus ustellus Clerc.
- LYONETIIDAE**
Bucculatrix maritima Stain.

REPORT ON THE INVESTIGATION OF A ROUND BARROW ON ARRETON DOWN, ISLE OF WIGHT.

PART I: THE BARROW.

By JOHN ALEXANDER.

On the open downland, at the crest of the central chalk ridge of the Isle of Wight, and overlooking the village of Arreton, there are to-day two round barrows,¹ the larger, some 9 feet high, known locally as Michael Morey's Hump, and the smaller, nameless and less than half as high, the subject of the present report. The barrow lies 20 feet to the south-west on the bank of the artificial cliff created by the Down End Chalk Quarry (see fig. 1). The barrow, endangered by the quarry, was examined in August and September, 1956, on behalf of the Inspectorate of Ancient Monuments, the Ministry of Works.² The working party was composed of undergraduates from Cambridge and Durham universities and volunteers from London and the Isle of Wight.³ Through the generosity of the landowner, Mr. A. Brown, the objects found have been placed in Carisbrooke Castle Museum.

Of the four barrows that once formed this group,⁴ all had been dug into and two destroyed before the present century. The excavators of those destroyed⁵ considered them disturbed and noted finds only from the southern one (Map II, fig. 1) which yielded pottery, compared to the Late Bronze Age urns from Barnes, charcoal, and horses' teeth. Michael Morey's Hump was dug into in 1815, but all the finds⁶ seem to have come from the Saxon secondary burials. The fourth barrow, the one excavated in 1956, had been dug into many times and only survived in a very mutilated form. In addition to the many pits and trenches, it was well-known locally as a rabbit warren and had been partially destroyed by explosives in the 1939-45 war.

In 1956 the whole of the remainder of the barrow was cleared to bed rock by the quadrant method. Three main phases were distinguished in the history of the site, *viz.*, a pre-barrow settlement, the barrow with its primary and secondary burials, and the later disturbances.

¹ O.S. 6-inch Hampshire (*I.O.W.*), xciv, NE, 54, 41, 1, 14.6.

² The excavation was directed by J. A. A. assisted by A. O.

³ Special thanks are due to Messrs. Ozanne, Britton and Barfield for help in the excavation, to Mr. P. Spragge for taking most of the photographs, and to Mr. G. C. Dunning and Mr. J. Jones for help, advice, and the drawing of the 'Blisshen' dagger.

⁴ *Proceedings of the Isle of Wight Natural History and Archaeological Society* (hereafter *PIWNHAS*), III (1938), 184.

⁵ *J. Brit. Arch. Ass.* (hereafter *JBAAS*), VI (1851), 453 and XIX (1863), 131.

⁶ *JBAAS*, V (1850), 365.

PART I: THE BRONZE AGE BARROW AND ITS LATER DISTURBANCE

During the Early Bronze Age a barrow was raised over two inhumations on the site and probably three cremations were inserted into its flanks.

THE PRIMARY BURIAL AND ASSOCIATED FEATURES

Six feet south-west of the centre of the barrow was a grave cut 3 feet into the chalk¹ and oriented W.N.W.-S.S.E. (pl. xxvii, b). It was nearly 8 feet long by $2\frac{1}{2}$ feet wide. The west end had smooth vertical sides, but the east was rough hewn, not square, and much nearer the surrounding stake circle.² The grave was filled with tips of chalk and barrow material (see section Y'-Y'', fig. 3) and contained thirteenth century pottery. In the tips lay the incomplete skeleton of a middle-aged woman. From their positions the bones had been flung back into the grave after it had been robbed and they are likely to be those of the original burial. With them was found a segmented faience bead, a chalk bead, and a fossil used as a bead.

Associated with this burial were three stake circles and two stake lines having a total of 144 stake-holes, all of them contemporary with each other and the primary burial.

(1) *The Small Circle.*

Closest to the grave lay a well-planned circle of 32 stakes, the centre of which lay in the grave (pl. xxvii, b). They were spaced at 18-inch intervals and one had been omitted to make an entrance on the east side. The holes were all circular, 3 to 4 inches in diameter, and penetrated vertically into the chalk for 6 to 10 inches.³ There were no traces of decayed wood either in them or in the barrow above them, as there were in some of the other stake-holes, so that they were not left to rot in position. The variations in depth might mean that the tops of the stakes were of uniform height and the smallness of the hole suggests that they were driven in.⁴

(2) *The Large Circles and the Ditch* (pl. xxvii, a). These were concentric about a different centre 5 feet east of the grave. They comprised :—

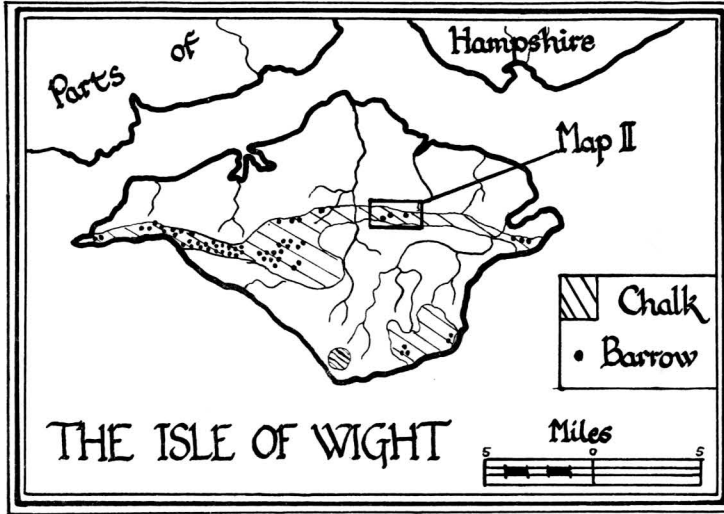
(a) *A large inner circle.* This was an irregular circle twice the diameter of the small inner one with which it had a segment in common (see fig. 2). It was composed of 40 stakes, vertical and of similar depth to those of the small inner circle but slightly wider ($3\frac{1}{2}$ to $5\frac{1}{2}$ inches in diameter). There was no sign of wood in or above the holes. Three holes were missing. One on the east side was probably deliberately omitted, for the resulting gap is in line with the gap in the small inner circle and is further defined by two extra stakes.

¹ A further 10 inches must be added to reach the old surface of the ground.

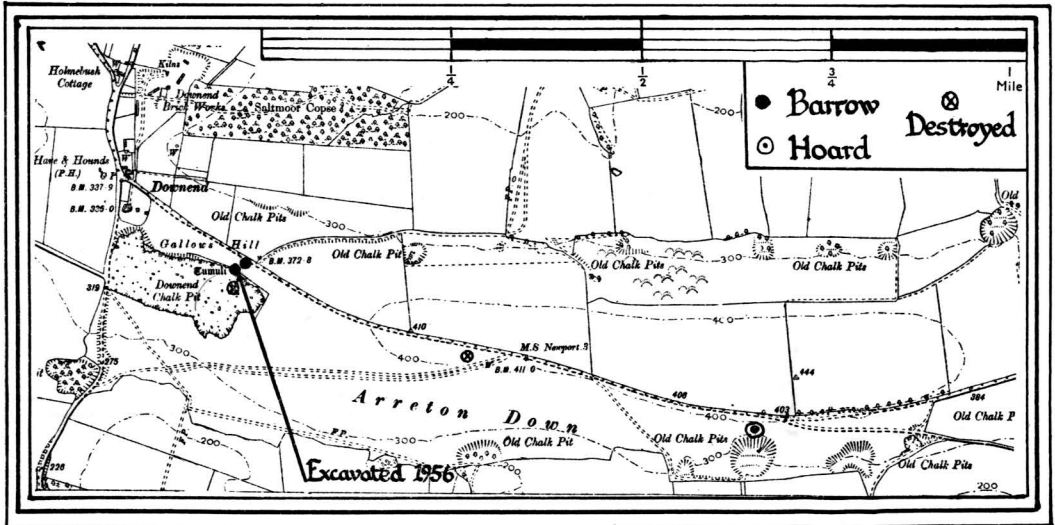
² It seems likely that the east end was distorted by the mediaeval robbers testing bedrock here. The true length of the grave may have been 7 feet.

³ A further 10 inches must be added to reach the surface of the ground.

⁴ This would suggest that they were not more than 4 or 5 feet high and a slight hardening of the chalk round the mouths of some of them might have been due to ramming.



MAP I



MAP II

Fig 1. Maps showing the site of the barrow on Gallows Hill, Arreton Down.

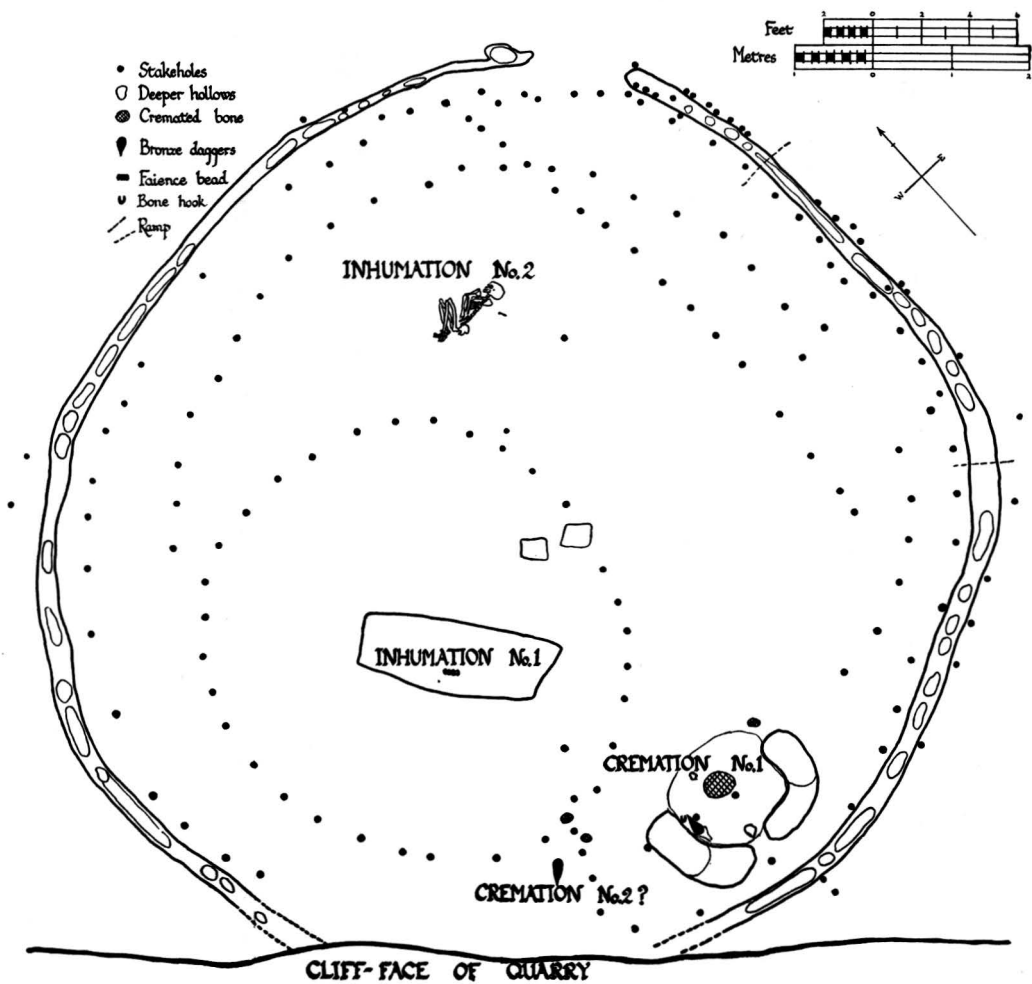


Fig 2. Plan of the prehistoric remains.

- (b) *A ditch* (pl. xxviii, d). This was laid out from the same centre with a diameter of 39 feet. It was dug in about 50 oval depressions from 1-4 feet long, 1 foot wide, and from 1-1½ feet deep, each of which could only have been the work of an individual, and which were then joined together, giving the completed ditch an irregular polygonal plan. To the north-east the ditch became shallower until it disappeared leaving a 4-foot wide causeway where the chalk was puddled and hard, presumably through use (pl. xxviii, c, and section Y-Y', fig. 3). The mollusca show the ditch to have remained open for at least a year. After this it was deliberately filled in before the barrow was raised. It is shown in sections C'-C, X-X', fig. 3.
- (c) *A large outer circle*. This irregular circle followed closely the inner lip of the ditch and was probably erected after it had been dug. Forty-three stakes out of a probable 50 were found and they were similar in every way to those of the inner circle. There were no traces of wood in them. It is probable that there was a gap in the circle opposite the causeway across the ditch, but it is difficult to separate the circle here from a stake line. It is possible that these three features were intended to represent a hut, the ditch being a gutter¹ and the gabled roof being held by the two circles and the two posts at the centre.² Two of the stake lines mentioned below look like internal divisions (pl. xxvii, c).
- (3) *The Stake Lines*. These were contemporary with the circles, for they had stakes in common with them. The lines were straight and the holes were of the same size and verticality as the others. There were no traces of wood in them. They comprised :—
- (a) A north-south line of 16 stakes which appeared to seal both the causeway and the stake circle entrances from the burials. It ran southward from a stake in the outer large circle cutting off a segment of the inner large circle (pl. xxvii, c).
- (b) A north-west south-east line of 13 stakes which extended beyond the ditch on both sides of the causeway, completely sealing the entrance. It included two stakes of the outer large circle, one of which was the starting stake for the north-south line.
- (c) An incomplete north-east south-east line at the weathered, partially destroyed edge of the barrow. The six stakes included one from each of the inner circles. This line was radial to the large circle, and might be an internal division of the hut.
- (d) Another possible internal division was indicated by two stakes near the centre of the large circle.

¹ In any case it is too small for a quarry ditch.

² These were in the bottom of the robber trench and had smooth sides. They could be associated with the stake circles, but might also be test pits cut by the robbers to make sure that bedrock had been reached.

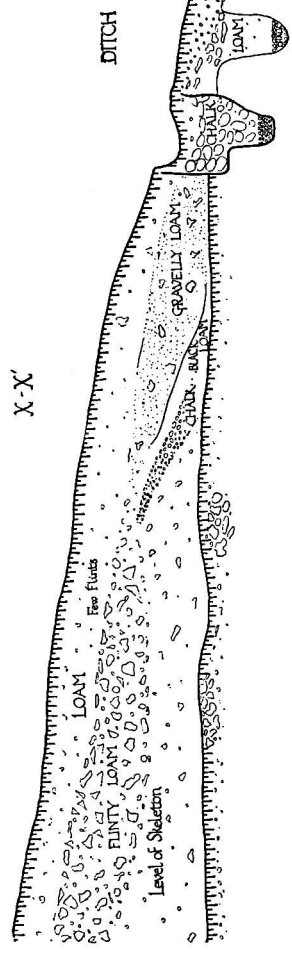
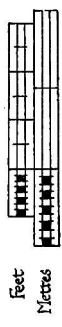
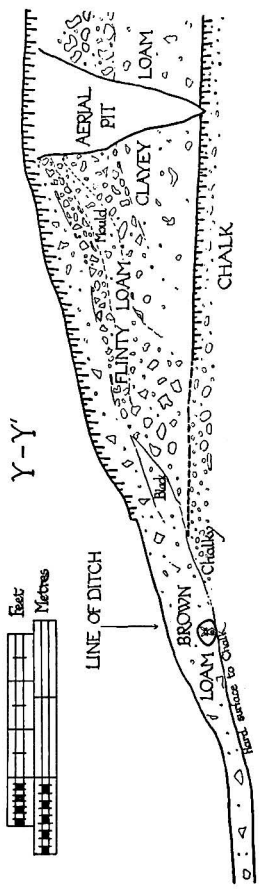
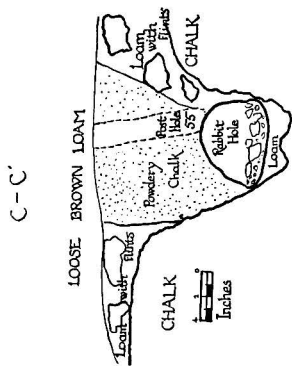


Fig. 3. Sections of the barrow.

THE CAIRN

In 1815 an eye-witness reported that 'the mound consisted of a crust of chalk and earth 2 feet thick covering a heap of picked flints.' In the intact parts of the mound no heap was found so that it cannot have covered the whole area of the barrow. An undisturbed pile of flint lay west of the grave pit (see section Y'-Y'', fig. 3) and a larger disturbed pile north-east of it. Two big piles lay outside the barrow in the mediæval spoil dumps. Since more flints were removed by the Turnpike Commission,¹ it is likely that the original cairn covered only the primary burial and the area around it. Where undisturbed west of the burial, the cairn reached the large inner circle and overlay its stake-holes so that it is probable that the stakes were removed before the cairn was raised. The amount of flint remaining suggests that the cairn was a large one.

THE SECOND INHUMATION (pl. XXVIII, b)

After the cairn was built the whole area, including the ditch, seems to have been covered 1 foot deep in chalky loam.² This was clearest to the east where a 20-foot stretch of the surface of the loam had been hardened and puddled (see section A-A', fig. 3). Although it could not be distinguished further north it is likely to have existed there and the burial was laid on it (see section X-X', fig. 3). The body lay flat but no grave pit was found. Other disturbances were noted and the careful search made for the grave pit would have revealed it if there had been one. The individual buried was an adolescent girl, who lay on her side facing north (pl. XXVIII, b). There were no grave goods, but a scatter of hazel charcoal fragments lay behind and partly underneath her. Her left arm had been deliberately mutilated before burial.

A number of new stakes, smaller than those previously used ($1\frac{1}{2}$ - $2\frac{1}{2}$ inches in diameter) were now driven in round the outer lip of the buried ditch. Some of these were actually driven into the ditch fill (see section C-C', fig. 3). They were left to rot in the ground and several could be traced a foot up into the mound. It could be seen that they were later pushed outwards by the weight of the barrow. The stakes, with four scattered exceptions, were all on the eastern perimeter and form either a revetment to the mound or a final sealing of the burial area; the latter seems more likely for the puddled surface over the ditch fill suggests that the final entrance was from this direction.

THE BARROW MOUND

A mound of topsoil was then raised over the whole area. It was about 42 feet in diameter, but its height cannot be gauged; the neighbouring barrow is still about 9 feet high. In the north-east, where it remained undisturbed, four strata could be distinguished. All were of chalky loam of varying consistencies (see section X-X', fig. 3) and were scraped up from surrounding topsoil, lowering the surface round the barrow

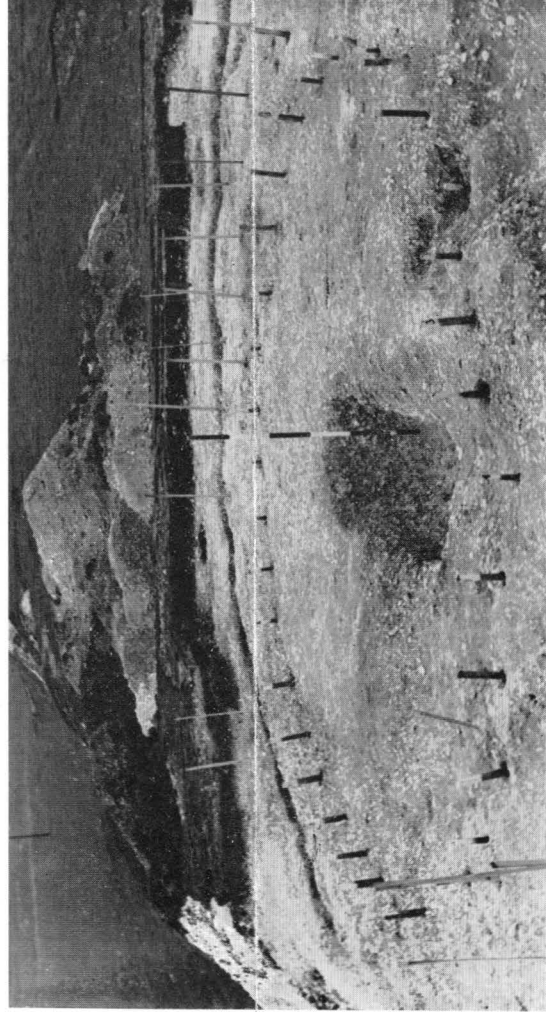
¹ *JBAA*, VI (1851), 453.

² On the evidence of the mollusca the ditch had been left open for many months, so that a period of time separates the two primary inhumations.

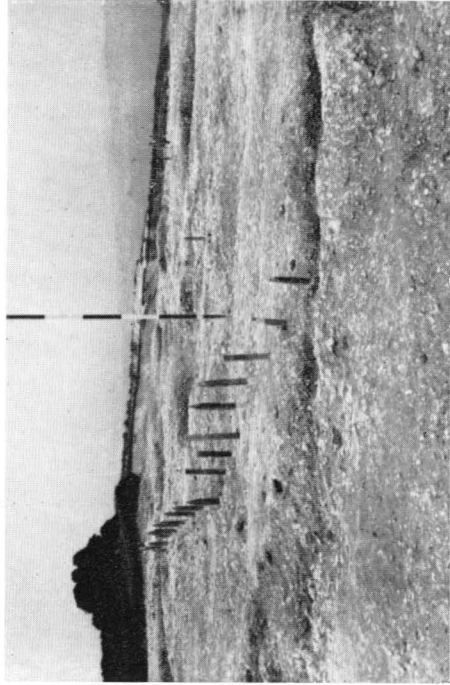
PLATE XXVII



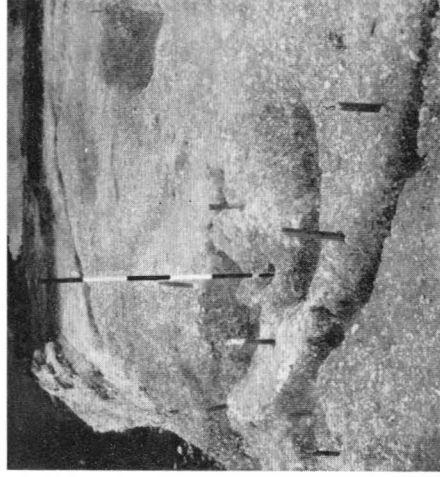
a



b



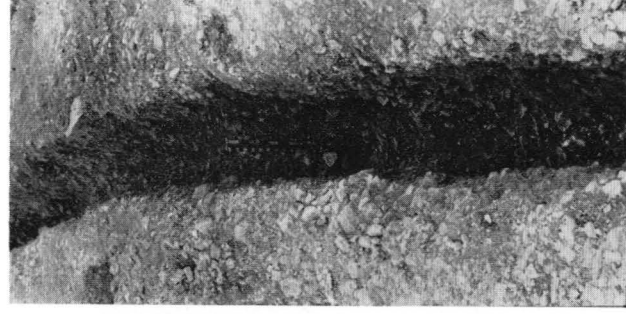
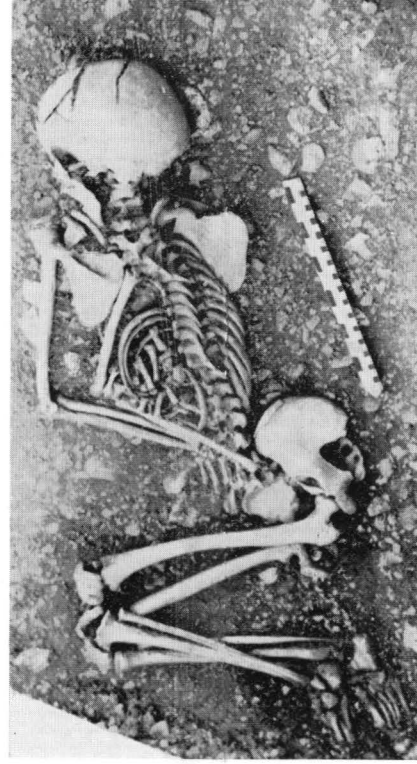
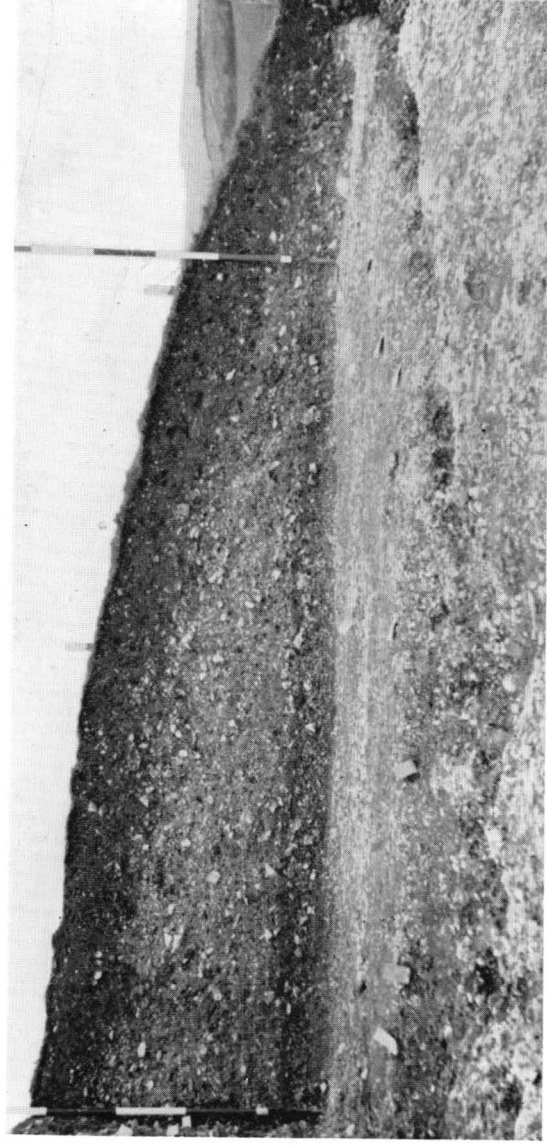
c



d

The excavated barrow, showing stake-holes and burial pits.

PLATE XXVIII



The mound, the ditch, and the undisturbed skeleton.

DISCUSSION OF THE BRONZE AGE BARROW

Inhumation under round barrows is found in the Late Neolithic as well as in the Beaker and Wessex cultures. Two of the better excavated Dorchester Culture barrows,¹ both those of females, have a number of points in common with the Arreton Down barrow. The Wessex Culture inhumations² have fewer parallels. Those in ApSimon's earlier Wessex phase are men's and lack rich grave-goods, especially faience beads, but of his four later Wessex inhumations, which are all outside Wessex itself, that from Snowshill (Glos.) has parallels in the Arreton Down hoard. The great barrow at Bishop's Waltham³ with its food-vessel and later Wessex daggers also had a number of parallels in the rituals and the pottery.

The presence of a grave-pit is generally an early feature⁴, and is rare on the nearby mainland. Bishop's Waltham, however, has shown (*loc. cit.*) that the custom survived into later Wessex times. The off-centre position of the pit is common⁵ but it is usually difficult to decide if it was deliberate. At Arreton Down there is no doubt at all that it was. The eccentricity of stake circles under barrows in Holland has been taken by Glasbergen as an indication of more than one period of construction.⁶ Ashbee⁷ has noted that it is characteristic of the more elaborate barrows in England and seems inclined to apply Glasbergen's suggestion in England. At Arreton Down this cannot be done, for all the circles are contemporary.

Large numbers of stakes under barrows are best paralleled in Holland, although a few British examples are known in the Highland Zone. The small inner circle is likely to have been a temporary sacred area of the type suggested by Case and Fox,⁸ rather than a mortuary house of any sort.⁹ Many parallels for the large circles and the ditch exist in Holland, but only one or two in Britain.¹⁰ At Arreton and Bleasdale, the only two completely excavated sites, the entrances were not lined up. In none of the British examples were the posts left to rot. The irregular ditch is rare in southern Britain and Grinsell suggests that it is an early trait.¹¹ It might better be described as non-Wessex. The best parallel for Arreton is from Handley,¹² but an undug bell-barrow

¹ Stanton Harcourt (Piggott, *Neolithic Cultures*, 354) and especially Dunstable (*Arch. J.* (1931), 193), with an off-centre primary grave-pit, secondary Neolithic pottery and flints from under the barrow, a buried ditch and a possibly Wessex II secondary burial.

² *Annual Report of the Institute of Archaeology*, London (1943), 38.

³ *PPS*, xxiii (1957), 137.

⁴ Grinsell, *Ancient Burial Mounds*, London (1941), 93.

⁵ Grinsell, *op. cit.*, 92.

⁶ *Excavations in the Seven Beatusdes*, 38.

⁷ *Arch. J.* (1958), 4.

⁸ *PPS*, xviii (1951), 148 and Fox, *Life and Death in the Bronze Age* (1959), 137.

⁹ *Oxoniensia*, xi, 21. In any case the bedding trench is absent.

¹⁰ *Excavations in the Seven Beatusdes*, 52, where 35 are listed in Holland. Ashbee (*Arch. J.* (1958), 5) lists only 2 in his Type C1, but it is difficult to separate from his C2.

¹¹ Grinsell, *Ancient Burial Mounds*, 97.

¹² *PPS* (1941), 106.

and leaving it without the occupation of debris found under the barrow. The tips could be traced above the filled-in ditch on the south side (section X-X', fig. 3) and show that the barrow had no berm.

SECONDARY CREMATION BURIALS

Several cremation burials were inserted into the flanks of the barrow. An undisturbed cremation lay at the south-west edge of the barrow near the cliff edge (pl. XXVII, d, and fig. 2). It had been disturbed only by animal runs, although the barrow had been removed to within a foot above it. The burial lay at the bottom of a pit¹ cleared on the surface of the chalk subsoil. To the east and west crescentic pits were made by the intersecting of oval, vertically sided, and flat bottomed depressions very much like those of the ditch. The southern oval was in each case dug first to a depth of 8 inches followed by the northern one dug to a depth of 18 inches. There were also two small irregular holes about 8 inches deep between the horns of the crescents; although apparently artificial, they had not been made by driving in stakes and were filled with fine brown loam and small chalky fragments. To the north a 4-foot gap was left between the crescents and here a compact conical mass of cremated bone was found. This was possibly the contents of a basket, but there was no sign of a container. The remains were those of an adult man, but they represent only a partial collection from the pyre. Twenty small fragments of chalk coated with a reddish material scattered round the bones may also have come from the pyre.

A bronze knife with its point to the north lay 2 feet west of the cremation at the lip of the crescent ditch. Its leather sheath was still preserved and its handle was indicated by a stain.² In the animal run beside it lay the bone belt hook (p. 276) which probably belonged to it.

The crescents had probably been filled in first, for they were three-quarters full of the clean chalk lumps of their own spoil. The rest of the pit-fill was indistinguishable from the mound material except at its northern side where a deliberate deposit of charcoal and bone was made 8 inches up in the fill.

One or two disturbed cremations come from the same area. A few pieces of cremated bone which could not belong to the cremation already discussed, at least one of the two knife/daggers recovered from the barrow before the excavation, and a barbed and tanged flint arrow-head were found here. The other knife/dagger (without a detailed find spot) probably came from the cairn.

There is also the report of the eye-witness of the 1815 disturbance that 'among the flints were found several circular pots of coarse burnt clay containing calcined bone in small pieces'.³ The excavation produced no evidence of these.

¹ About 8 feet by 6 feet.

² A small fibrous mark was noted on the blade by Mr. L. Biek of the Inspectorate of Ancient Monuments Laboratory. He has suggested that it might be wood.

³ *JBA* (1851), 453.

on the Isle of Wight also seems to have a ditch of this type.¹ Lines of stakes blocking entrances are also well attested in Holland, but not in Britain.² In Holland they are short and belong to the Middle Bronze Age.

The cairn of flints over the primary burial is very common in the Early Bronze Age and a number of barrows on the Island have been reported with it.³ A faience bead with the primary burial suggests a synchronism with the Wessex Culture.

On the evidence of the ditch mollusca there was at least a year between the first and second inhumations, a detail paralleled at Tynings Farm (South Barrow).⁴ The careful mutilation of the second burial is better paralleled in Neolithic than Bronze Age rites.⁵

Among the final features, the stakes driven in at the outer edge of the barrow are common in Holland, but not in England, and the ramp used in building the barrow has been previously noted in Wales.⁶

It has been suggested⁷ that sherds and flints found in barrows were deliberately deposited. Although this could be demonstrated at Bishop's Waltham (*loc. cit.*) it seems most unlikely to have happened at Arreton. The flint knapping immediately preceding the barrow may have been connected with the preparation of the stakes.

It would seem from the parallels that the barrow builders had little in common with the contemporary Wessex Culture apart from the faience bead, and that their connections were with the west of Britain or perhaps Holland. Although the barrow was Bronze Age in date, a number of earlier customs were retained.

The cremation secondaries are easier to parallel except for the crescent pits of the undisturbed one. Sixteen other unurned cremations are known from the Isle of Wight alone,⁸ seven of them with bronze daggers. None have been noted from between pits and only at Snaildown⁹ was a crescentic pit found. It was also unusual for a man to be buried in a woman's barrow. Of the objects associated with the cremations the five-rivet knife (p. 199) and its bone belt hook (p. 204) probably belong to the transition of ApSimon's two Wessex phases, but both might well have closer Central European than English connections. The three-rivet dagger (p. 201) is of the later Wessex mainland type with close parallels in the Arreton Down hoard of that period. The knife with two rivets (p. 202) is more difficult to place, but should

¹ Brook Down 3.

² *Excavations in the Seven Beatitudes*, 153 but see *WAM*, LVI (1956), 139.

³ For example Ashley Down 5, Bowcombe Down, and Nunwell Down.

⁴ *Proc. Univ. Bristol Spelaeological Soc.*, vi (1946-9), 111.

⁵ Three skeletons with amputated hands and forearms were found at the centre of barrow I Bulford and were secondary to a deep grave in which was a skeleton with a perforated axe-hammer (*WAM* (1914), 616). I must thank Dr. I. Smith for this reference. An example of a disarticulated forearm comes from Nutbane Long Barrow (*PPS*, xxv (1959), 24 and 46), but is thought to be a later disturbance.

⁶ Fox, *Life and Death in the Bronze Age* (1959), 141.

⁷ *PPS* (1956), 137.

⁸ *PIWNHAS*, III (1938), 181-2.

⁹ *Wills. Arch. Mag.*, LVI (1956) 144.

belong to the end of its series and be of the same general date as the other two.

The parallels for the cremation secondaries suggest that the earliest could not be much later than the primary inhumation and that they are likely to be of the same or immediately successive generations. The metal objects suggest, like the faience bead, that the group of burials were contemporary with the mainland Wessex Culture, and show the community changing from a rite with many Neolithic traits to the common Middle Bronze Age one.

LATER DISTURBANCES OF THE BARROW

An unusually detailed history of the barrow can be given from literary sources and excavation (see fig. 4). The following phases may be distinguished :—

- (a) *Roman*. Thirty small sherds of Romano-British ware were found scattered through the disturbed and recent strata and a coin¹ of Crispina (struck A.D. 180-183) came from the turf just outside the barrow.
- (b) *Anglo-Saxon*. About 5 feet south of the centre of the barrow, in later robber trenches, two incomplete male inhumations were found. They lay piled at the bottom of an oval depression in the chalk² and scattered through a pile of flint nodules under which lay mediaeval pottery. A fragment of iron lay beside the pile.
- The 1815 description of the disturbance of the barrow said that a grave was found under the heap of flints and that 'part of an iron battle axe and a pair of brass tweezers' came from the heap, the former of 'Francisca' type. These have survived in Carisbrooke Museum.³ A garbled version of this find seems to have been published by Dennet.⁴ Other fragments of bone belong to a third inhumation and might be linked with the skull reported to have come from the barrow in 1952. These finds have been discussed by Sherratt.⁵
- (c) *Mediaeval*. The barrow was first robbed in the thirteenth century. A great trench was dug through it from west to east and the primary grave found and robbed. Some details of this digging could be gained from the 90 sherds of a waterpot, which had broken and had been trodden through the trench, and an iron

¹ Identified by Mr. J. G. Pollard of the Fitzwilliam Museum as a 1st Brass of Crispina (wife of Commodus), A.D. 180-182, weight 20.912 gr., Ob. CRISPINA AUGUSTA, Rev. PVDICITIA S C (*BMC*, IV, p. 766, 418, pl. 102b).

² It was not possible to say if this was a grave pit or part of the robber trench.

³ *JBAA*, VI (1851), 453.

⁴ *JBAA*, V (1850), 366.

⁵ 'Anglo-Saxon Remains on the Isle of Wight.' Unpublished manuscript deposited with the Society of Antiquaries of London.

buckle.¹ The pot² was of a well-known Island type (fig. 5). Its discovery seems linked with an entry in the Close Roll of 1237, where Henry III gave instructions that the barrows of the Isle of Wight should be searched for treasure, because a number had already been opened.³ The Arreton trench might therefore have been the work of either local or royal robbers.

- (d) *Eighteenth century.* It is possible that the barrow was opened before 1779. A report⁴ in that year said that ashes and burnt bone were obtained from two large barrows on Arreton Down. No evidence of this period came from the excavation.
- (e) *Nineteenth century.* Much damage was done in the early nineteenth century. About 1810 a road block was dug between the two barrows and in 1815 the Turnpike Commissioners dug into our barrow for flints.⁵ Their trench was from north-west to south-east and was probably dug from the south for there was no spoil to the north. They left pottery and pipes.
- (f) *Twentieth century.* The deep pit at the centre of the barrow (section Y-Y') was made for the mast of an experimental wireless station erected in 1930 and the pits for its guys were found. The postholes of the pre-1938 fence were also found. During the 1939-45 war demolition practice at the quarry face blew up a small part of the barrow and in 1952, after the casual discovery of the dagger, a certain amount of uncontrolled digging took place. At least two trenches are of that date.

BRONZE AGE FINDS

- (a) *Bronze Knife* (9.5 × 4.6 centimetres) with five rivets (fig. 6, no. 1).

This was found with sheath, hilt, and belthook by the undisturbed male cremation. It is well preserved except for the tip of the blade and the top of the butt. There is a wide but thin midrib and a semi-lunate mark on the top of the blade which shows where the handle fitted. The five rivet holes are all intact, but only three of them have rivets. These are in the centre and outside holes and are thin, almost headless, and rectangular in cross-section. Since the handle showed as a stain round it, the three rivets must have been the actual ones in use and two of the holes must have been deliberately left empty.

¹ This came from the disturbed fill of the robber trenches and is of mediaeval type. *Mediaeval Cat. London Mus.*, pl. lxxix.

² The jar was made of poorly cleaned, shell-tempered ware. It was handmade and had a brushed-on self-slip. It had an angular everted rim and was finished off with a knife along the edge of its sagging base (fig. 5). It appears to have been fired in an upright position for the inside has oxidised a uniform red while the outside of the base and belly were reduced to black and the shoulder and rim were variegated. The closest parallels from the Island are from Windcliffe and are most likely to belong to the thirteenth century. Thanks are due to Mr. G. Dunning for help with the identification and to Mr. L. Barfield for the reconstruction of the pot.

³ *PIWNHAS*, III (1938), 185.

⁴ *Archaeologia*, v, 113.

⁵ *JBAA* (1850), 366. At the same time antiquaries were excavating Michael Morey's Hump. They recorded and saved the Anglo-Saxon objects.

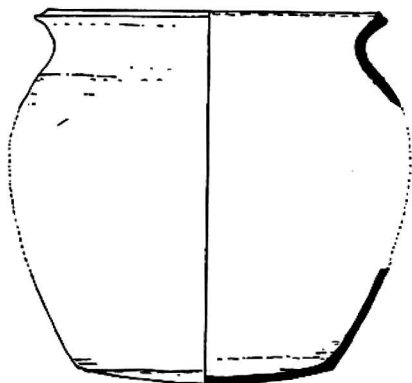


Fig. 5
The mediaeval pot, restored (one-sixth actual size)



Fig. 5a
Bone belt-hook (actual size)

The handle was seen only as a faint stain in the soil. It looked large (c. 6 centimetres long), and had a pronounced pommel. Analysis failed to identify the wood.

Some information about the sheath was provided as a result of submitting the knife and its immediate surroundings to the laboratory of the Ministry of Works. The Government Chemist established the nitrogenous nature of the material and a sample was then submitted to the British Leather Manufacturers' Research Association, who reported as follows:—

'After being embedded in paraffin wax and sectioned, the particles were seen to be fibrous. The fibres were translucent and there were frequent brittle breaks across them. Despite this breaking a weave pattern could be distinguished. In ancient leathers we have previously examined the fibres have always appeared translucent as though stuck, and as we observed in the present sample. In our opinion the material is leather, but there is insufficient material to identify the animal.'¹

Close analogies for the knife are difficult to find in Britain. It is closest to ApSimon's 'Bush Barrow' type of the Wessex Culture,² but lacks the sixth rivet and does not have the straight line across the top of the blade. The hybrids he notes have three or four rivets and only one certain five-rivet example has been noted.³ This had the semi-lunate marking, was twice as large, and was found with an inhumation. A more interesting one from Aylesford (Kent) may have had five rivets and was found with a Hiberno-Scottish axe. The use of only three rivets at Arretton Down might indicate the influence of the 'Snowhill-Camerton' type and mean that it came late in the 'Bush Barrow' series. Five-rivet daggers are far commoner in France⁴ and Central Europe,⁵ although the blades and hilts are often very different.

It seems likely that this knife belongs to the transition of ApSimons' Bush Barrow and Camerton series and must therefore be a near contemporary of the faience bead of the primary inhumation. It is possible that it shows Continental influence and in that case might be a hybrid, like the spearhead with a riveted socket in the Arretton Down Hoard.

(b) *Bronze dagger* (18.5 × 6.25 centimetres) with three rivets (fig. 6, no. 2).

This was found in 1952 by Mr. T. Blishen at the edge of the quarry and probably came from a destroyed cremation.⁶ It is extremely well preserved with all its rivets intact. It has a wide thick midrib emphasized by six grooves, a semi-lunate handle mark and an ogival blade. The three rivets have well-defined domed heads and thick shanks of circular cross section.

¹ Thanks are due to Mr. L. Blek for arranging these analyses.

² *Ann. Rep. London Univ. Inst. Arch.* (1953), 146.

³ Homington (Wilts.) Childe, *Prehistoric Communities*, 95.

⁴ Sandars, *Bronze Age Cultures*, 58, fig. 14.

⁵ Dechelette, *Manuel*, II, 191, fig. 57.

⁶ Thanks are due to Mr. Blishen and to Mr. J. Jones of Carisbrooke Castle Museum for permission to publish details of nos. 2 and 3.

This is a good example of ApSimon's Camerton-Snowhill group (*loc. cit.*) and is closely paralleled both on the mainland and in the Wessex hoards on the Island. It seems the latest Bronze Age object found.

(c) *Knife with two rivets* (fig. 6, no. 3). (6.4 × 3.2 centimetres).

This was found in 1815 and is said to have come from the cairn at the centre of the barrow. A number of urned cremations were reported at the same time but it is not certain that the knife was found with them. It is poorly preserved in two pieces, parts of the tip and butt being missing, and has a thin midrib, a concave sided blade, and a straight line across the top of the blade where the hilt ended. Only one torn rivethole survives, but there looks space for only one more.

Although this is a simpler type than the others it could well be of the same date. Piggott¹ suggests that these small thin knives are the latest of their type. Grinsell² notes that they are often found with women, and they are also found with other larger Wessex daggers.³

(d) *Tanged chisel* (1.9 × 6 centimetres), (fig. 6, no. 4).

This was also found in 1815 and might have occurred with the two-rivet knife. Precise dating of these objects is difficult, for they seem to have remained in use throughout the Bronze Age.

(e) *Faience bead* (fig. 6, no. 5).

The bead, 1 centimetre in length, was divided into five segments and was pale green in colour. Its surface was dull and its perforation (2 millimetres) was wide in comparison with the diameter of the bead (3.5 millimetres).

It belongs to Beck and Stone's Group I (small) which has previously been found only in Wessex in Britain.⁴ There it has come from only two inhumations and in general seems to belong to the later phase of the Wessex Culture.⁵ It seems as likely that the type reached Britain from Central Europe as from further west.⁶

(f) *Chalk and fossil beads.*

Eight beads were found, *viz.*, nos. 1-4 made by perforating the fossil *Porosphaera globularis*,⁷ nos. 5-7 of chalk, one (fig. 6, no. 6) being spherical and another oval, no. 8 being a fossil *Operculum*, probably *Cyclostma*, the perforation not certainly man made. Two (nos. 1 and 5) came from the primary grave pit, one (no. 2) from the ditch fill, one (no. 3) from the undisturbed body of the mound, and one (no. 8) from the pit of the cremation secondary. The remainder were from disturbed levels.

¹ *PPS*, iv (1938), 59.

² *ABM*, 35.

³ *10th Ann. Rep. Lond. Univ. Inst. Arch.*, 40.

⁴ *Archaeologia*, 85, 205.

⁵ *PPS*, xxii (1955), 59.

⁶ *E.g., Germania*, 21 (1937), 91.

⁷ I am indebted to Dr. C. L. Forbes for this identification.

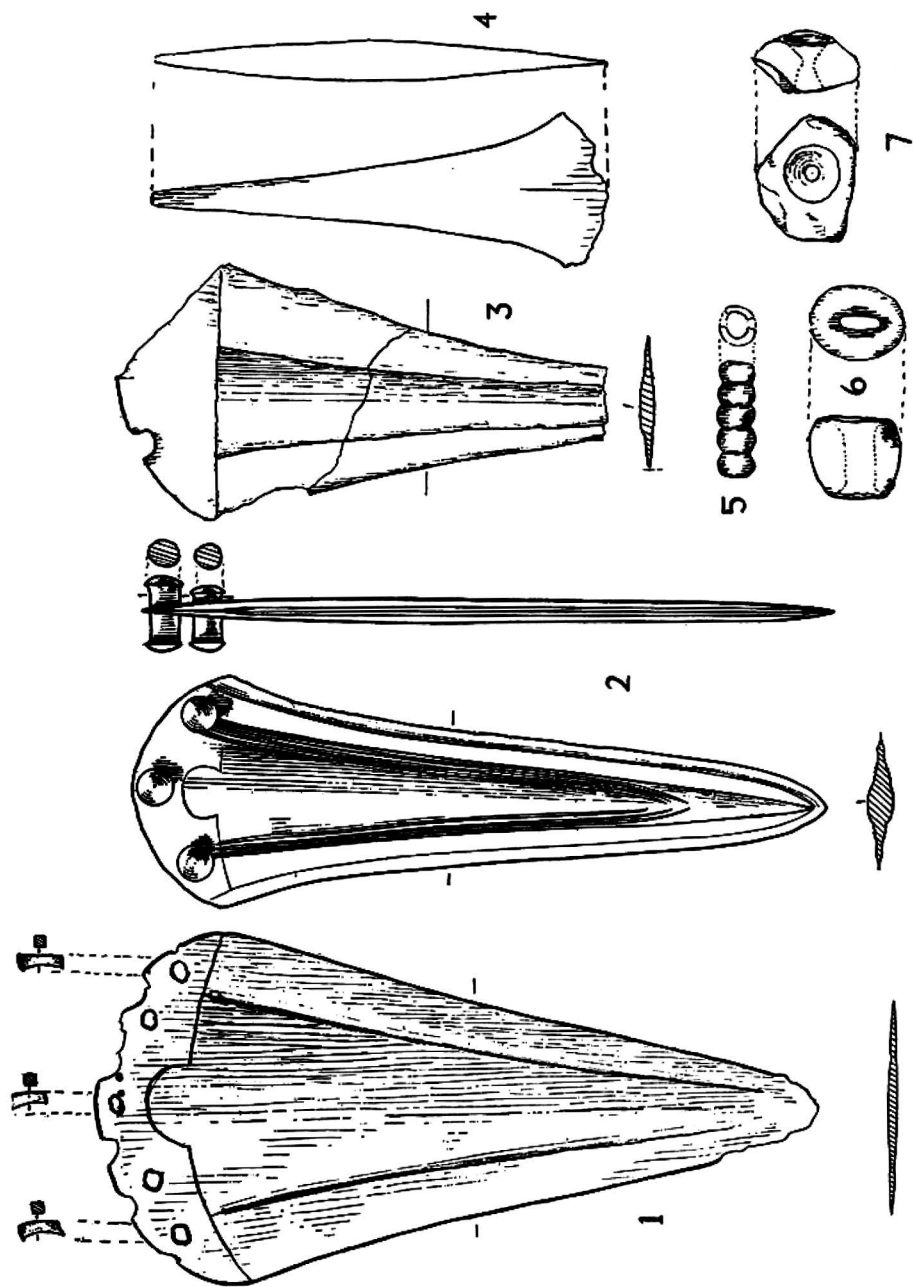


Fig 6 The bronzes 1, 3 and 4 (actual size), 2 (half actual size) and beads 5, 6 (double actual size), 7 (half actual size)

Beads made from fossil *Porosphaera* have been found in mainland Neolithic contexts,¹ but chalk beads seem unknown although chalk pendants occur. It would seem likely that beads nos. 1 and 5 belonged to the primary inhumation and they may have formed a necklace to which the faience bead also belonged. Another from the undisturbed body of the mound cannot have been part of this necklace and might well therefore belong to the pre-barrow occupation. Three partially bored chalk fragments, and a rough triangular piece of chalk with an hour-glass perforation (fig. 6, no. 7) may indicate unfinished beads.

(g) *Bone Belthook.*

This was found in an animal run within a few inches of the five-rivet bronze knife and is likely to have belonged to it. It is a simple hook made from a transverse section of a long bone, probably from an animal about the size of a sheep.² The hook (fig. 5a) has a trapezoid section, exterior grooves, and a splayed tip. The square sectioned shank is wider than the hook, is tapered at the top, and has side grooves.

The twelve bone hooks of this general type have been considered poor copies of or developments from the gold plate with a central hook found in the Bush Barrow.³ The bone examples are very widely scattered⁴ and none are very similar to the gold one. Better parallels seem to exist in the bone hooks found in contemporary Perjamos culture graves in Hungary⁵ where the hooks also come from the bottom of the plates as well as from the centre.

The British examples have few associations. The most interesting is from Amesbury 147, where one was found with a cremation and a bone pendant.⁶ Two others were with urned cremations, although no other details are known. It seems likely that these objects should be associated with the later phase of the mainland Wessex Culture, but the Central European connection is a possible one. In this case the Arretton example would mark the route along which the idea reached England.

The Editor wishes to acknowledge the generous help of the Pre-historic Society in allowing the use of their blocks for this article. Reprints may be obtained of them at No. 16 Pembridge Gardens, London, W.2.

¹ *NCBI*, 86.

² I am indebted to Miss J. E. King of the British Museum (Natural History) for this information.

³ Childe, *Prehistoric Communities*, 136.

⁴ Colt Hoare (1812), 198 and Greenwell (1877), 552.

⁵ Dolgozatok, VII (1931), 37 and pl. x.

⁶ Colt Hoare (1812), 198.

BIRD REPORT FOR 1960.

By J. STAFFORD

A welcome variety of notes was received this year, and the total number of species, 172, has only been exceeded in 1958. Although no new species was recorded, some unusual species which deserve special mention were Bittern, Scaup, Iceland Gull, and Red-breasted Flycatcher.

There were again several local records which represented only a part of more extensive occurrences. Details may be found under Grey Phalarope, Little Gull, Swift, Swallow, and Blackcap.

As the amount of information received increases each year, it is necessary to be still more selective in choosing records for inclusion in this report. The two categories of notes particularly curtailed this year relate to the Society's continued survey at Newtown and the observations at St. Catherine's Point. It may be worth while to reiterate that all notes, whether published or not, are valuable in deciding which information is most significant.

Thanks are due to everyone who contributed information. Mr. E. J. Wiseman was especially helpful in collecting together the notes of nearly all the visiting bird-watchers from the mainland.

Abbreviations, etc.—Records with an element of doubt are enclosed in square brackets []. The order, numeration, and nomenclature follow the British Ornithologists' Union's *Check-List* (1952), except that the English names are those used by *British Birds*. All records refer to 1960 unless otherwise stated. Observers are indicated by their initials in the systematic list. m.o. : many observers (more than four). ♂ : male. ♀ : female.

Observers and Contributors.—M. C. Adams, H. E. Axell, R. Brown, Miss M. M. Bruce, M. W. Burnop, I. Butt, Col. Sir R. S. Clarke, R. H. Dennis, J. F. Denny, E. J. Doe, Miss V. Fisk, O. H. Frazer, A. J. Henry, Miss L. Kennedy, Dr. J. S. Knox, Cdr. C. Lang, G. J. Lawrence, Mrs. D. K. Lower, R. J. Machin, Mrs. A. L. Meeuws, L. Mummery, Miss E. M. Newnham, Miss P. Parker, D. Price, B. W. Renyard, D. Roberts, Mrs. M. M. Seabroke, A. Searle, W. Shepard, J. Simons (JSi), M. D. Smith, J. Stafford, Miss D. D. Street, J. H. Taverner, M. Terry, W. H. Truckle, T. F. Twist, S. T. Waite, A. Walker, G. A. H. Wells, S. L. White, E. Williams, E. J. Wiseman, D. B. Wooldridge, Maj. C. Worrin, A. Yorke-Norris, and the New Forest Ornithologists' Club.

SYSTEMATIC LIST.

- 1 **Black-throated Diver.** Six flew E. and 1 W. past St. Catherine's Pt. on Jan. 11th (EW), and a total of 6 flew E. between April 2nd and May 8th (m.o.). Also single birds in Osborne Bay on Jan. 30th (AJH) and off Ryde Pier and in the mouth of Brading Harbour on Dec. 1st (BWR).
- 2 **Great Northern Diver.** Seen only at St. Catherine's Pt. ; 6 flew E. and 14 W. on Jan. 11th (EW), and a total of 4 flew E. and 1 W. between April 22nd and May 8th (m.o.).
- 4 **Red-throated Diver.** There was a considerable movement past St. Catherine's Pt. in mid-January ; on Jan. 9th 28 flew E. and 60 to W. (including 49 in under an hour) (WHT), and on Jan. 11th 42 flew E. (including a flock of 27) (EW). Also a few other records there in both spring and autumn.
One off Yarmouth on March 12th (MCA), 1 in Osborne Bay on Nov. 5th (AJH), and 2 at Newtown on Nov. 28th (MMS).
- 5 **Great Crested Grebe.** Several records of 1 at Newtown in Jan., Feb., and Dec. (MMS, RB, WHT, EJW). 3 in Osborne Bay on Jan. 30th (AJH).
- 9 **Little Grebe.** Nesting was recorded at a new site—a large pond in the Newtown area (RJM).
- 16 **Manx Shearwater.** At St. Catherine's Pt. 1 flew W. on March 30th (AY-N), 1 E. on May 3rd (SLW), and 3 E. on July 12th (MWB).
Balearic Shearwater. 2 flew E. past St. Catherine's Pt. on Sept. 24th (RB, WHT, EJW).
[Several unidentified shearwaters were recorded at St. Catherine's Pt. in the autumn (m.o.), and 1 flew W. off Dunnose on Aug. 21st (RB, EJW, DBW).]
- 26 **Fulmar.** Again a few records near the Needles cliffs in April and May (EJW, JS).
- 27 **Gannet.** Seen frequently at St. Catherine's Pt., and occasionally at Ventnor and Dunnose, in spring and autumn (m.o.) ; greatest numbers occurred on Sept. 25th, when 58 flew E. and 2 W. (RB, WHT, EJW).
Also 1 found dead at Shanklin on Nov. 21st (AJH), and 4 flew S. off Bembridge on Dec. 1st (BWR).
- 30 **Heron.** The Wootton heronry has now moved entirely to Bridesford Copse, where 16 nests were occupied (RSC)—the largest number since the colony was first recorded in 1928.
- 38 **Bittern.** One flew S.W. out to sea from St. Catherine's Pt. on Aug. 31st (DP).
- 45 **Mallard.** A pair in Alum Chine on April 24th (NFOC) may have been nesting.
Again many at Newtown at end of year—c. 300 on Dec. 11th (MMS).

- 46 **Teal.** Ringing recovery; an adult ♂ ringed at Abberton, Essex, on Jan. 10th, 1959, was shot in the I.O.W. (possibly at Wootton) about Jan. 15th, 1960 (GAHW).
- 47 **Garganey.** A pair which stayed in Brading Marsh from March 13th to April 18th was joined by a further ♂ on March 30th (AJH, LK).
- 52 **Pintail.** At Newtown, 2 ♂ on Feb. 14th and 15th (RB, WHT, EJW, MMS), and a pair on March 26th (MMS).
17 flew E. on April 3rd (EJW), and 7 W. on Oct. 10th (WHT, EJW), past St. Catherine's Pt.
- 53 **Shoveler.** At Newtown, 14 on Jan. 17th (MMS), 4 on Jan. 24th (AJH), and 10 on Feb. 13th and 14th (RB, WHT, EJW, MMS).
A pair at Bembridge on March 20th (AJH).
5 on March 20th, 4 on April 2nd, and 12 on April 3rd, flew E. past St. Catherine's Pt. (WHT, EJW).
- 55 **Scaup.** A ♂ at Newtown from Jan. 21st to Feb. 21st (MMS), and a ♀ at Bembridge on Oct. 23rd (AJH).
- 56 **Tufted Duck.** Up to 6 at Bembridge from Jan. 17th to April 18th, and 1 or 2 from Oct. 23rd to the end of the year (AJH).
15 flew E. past St. Catherine's Pt. on March 20th (WHT, EJW).
- 57 **Pochard.** Recorded only at Bembridge; variable numbers from beginning of year to March 20th, with maximum of 17 on Feb. 14th; 1 from Nov. 13th onwards (AJH).
- 60 **Goldeneye.** A ♀ at Bembridge on Jan. 17th (LK) and 24th, and Dec. 18th (AJH).
- 61 **Long-tailed Duck.** One flew E. past St. Catherine's Pt. on April 2nd (EJW).
- 62 **Velvet Scoter.** Recorded flying E. past St. Catherine's Pt. in April—5 on 2nd, 2 on 3rd, and 1 on 28th (JSi, AW, EJW).
- 64 **Common Scoter.** The main movement past St. Catherine's Pt. was on April 2nd and 3rd, when 429 and 873 respectively flew E. (EJW).
The only Solent records were 14 flying E. off Headon Warren on April 18th (RB, AS, EJW), and a ♀ at Newtown on Oct. 31st (MMS).
- 67 **Eider.** At St. Catherine's Pt. 30 flew W. on Jan. 11th (EW), 4 were on the sea on April 18th (MWB, WHT, AW), 2 flew E. on April 24th (JSi, AW), and 5 flew E. on May 8th (WHT, EJW).
An immature ♂ flew W. past Headon Warren on April 18th (RB, AS, EJW).
- 69 **Red-breasted Merganser.** Movements at St. Catherine's Pt. included 16 flying E. on April 3rd (EJW).
- 73 **Shelduck.** The largest count at Newtown was 417 on Jan. 17th (MMS).
- 76 **White-fronted Goose.** 2 at Newtown on Feb. 10th (MMS).
- 80 **Brent Goose.** Recorded flying E. past St. Catherine's Pt.; 4 on Jan. 9th (WHT), 28 on March 24th (RHD), and 2 on April 2nd (EJW).

- One at Newtown on Jan. 24th (JS), Feb. 13th (RB, WHT, EJW), and for a week from Dec. 25th (MMS).
- 91 **Buzzard.** 2 near Needles on Jan. 3rd came in from S. and then soared away to E. (JSK); 1 over Brighstone Down on April 24th (JS); 1 at Yarmouth on May 3rd (MMB); 1 near Brading Marsh on Aug. 21st (RB, EJW, DBW); 1 over Stenbury Down on Sept. 24th (JFD).
- 102 **Montagu's Harrier.** An adult ♂ came in to St. Catherine's Pt. from S. on April 24th (JSi, WHT, AW).
- 104 **Hobby.** A ♂ seen several times in the Brighstone Down area between June 16th and July 7th (JS).
- 105 **Peregrine.** One seen about the Needles cliffs as usual in the breeding season (m.o.). Also an immature ♀ at Yarmouth on Dec. 26th (MCA).
- 107 **Merlin.** 2 on Sept. 25th and 1 on Oct. 16th, at St. Catherine's Pt. (RB, WHT, EJW). A ♀ at Culver Cliff on Oct. 14th (EJW).
- 117 **Quail.** Heard at Apse Manor Farm, near Shanklin, June 13th-16th (AJH).
- 131 **Oystercatcher.** 41 at Newtown on Feb. 14th (MMS).
A pair in Newtown Marsh took over a Lapwing's nest containing one egg, to which they added two of their own and a few pebbles and shells. The Lapwing's egg hatched, but soon afterwards the nest and remaining eggs were destroyed by a high tide (RJM).
- 133 **Lapwing.** 3 pairs nested in Sandown Marsh, on soggy ground by the new main sewer pipe (LK). 4 pairs nested on Ashley Down (LK). Nests found on Bowcombe Down and Garstons Down, and by R. Medina at Werrar (RJM, WS).
Largest flocks were c. 500 at Atherfield on Jan. 3rd (LK) and c. 1400 at Newtown in Dec. (MMS).
- 140 **Golden Plover.** 75 at Newtown on Dec. 10th (MMS).
- 143 **Turnstone.** One at Newtown fostered two young Oystercatchers for at least three weeks, by which time they were much larger than the Turnstone. It showed much more concern about intrusive humans and dogs than did the putative parent Oystercatchers (GJL, RJM).
- 145 **Snipe.** C. 50 on ploughland at Brighstone on Jan. 3rd (LK). C. 100 in Thorley Marsh on March 22nd (MMS). C. 100 in Brading Marsh in Dec. (AJH, BWR).
- 150 **Curlew.** C. 450 at Newtown in early Jan. (MMS).
- 151 **Whimbrel.** 71 on April 23rd, and 24 on April 30th, flew E. past St. Catherine's Pt. (JSi, JHT, WHT, AW).
- 154 **Black-tailed Godwit.** Recorded only at Newtown; c. 100 on Jan. 3rd (MMS), c. 30 on Feb. 14th (RB, WHT, EJW), 12 on Aug. 16th, and c. 80 on Sept. 6th (MMS).
- 155 **Bar-tailed Godwit.** There was a strong easterly passage at St. Catherine's Pt. in April (m.o.), including the remarkable total of 1085 on the 27th—30 in the early morning and 1055 in the late afternoon (JSi, AW).

- One at Newtown on April 21st (MMS), July 30th (JS), Aug. 16th, and Sept. 13th (MMS).
- 156 **Green Sandpiper.** One at the pool by the West Medina Cement Mills on April 23rd (RJM). One at Newtown on July 22nd and Aug. 22nd (MMS). 2 at Yarmouth on Sept. 3rd (MCA).
- 157 **Wood Sandpiper.** 2 at Yarmouth on Aug. 5th, and 1 there the following day (MCA).
- 165 **Greenshank.** Recorded only at Newtown—maximum 12 on Dec. 3rd (MMS).
- 169 **Knot.** At Newtown, c. 50 in Jan. and Feb., and c. 95 on Dec. 16th (MMS).
- 171 **Little Stint.** At Newtown, 2 on Aug. 2nd and 23rd, 1 on Sept. 13th (MMS) and 15th (JS), and 5 on Sept. 18th (MMS). 2 in Luccombe Bay on Sept. 15th (TFT). One at Atherfield on Oct. 9th (RHD).
- 178 **Dunlin.** On April 27th and 28th c. 450 and 200 respectively flew E. past St. Catherine's Pt. (JSi, AW).
- 179 **Curlew Sandpiper.** 3 at Newtown on Sept. 12th, and 2 the following day (MMS).
- 181 **Sanderling.** 63 in Brading Harbour on Dec. 1st flew towards Whitecliff Bay (BWR).
- 184 **Ruff.** A ♀ at Newtown on April 16th (MMS).
- 187 **Grey Phalarope.** The remarkable invasion in the autumn affected mainly Cornwall, Devon, and Dorset, but the Island also received a share. A juvenile ♀ found on the Canoe Lake, Sandown, on Oct. 5th only lived for a day (LK, MMS). One by Freshwater Causeway and 3 in Freshwater Bay on Oct. 8th (JS). 2 at St. Catherine's Pt. on Oct. 8th (RHD, SLW, EJW). One at Atherfield, 2 at Brighstone, 1 at Alum Bay, 4 at Colwell Bay, and 17 at Ryde, all on Oct. 9th (RHD).
- 193 **Arctic Skua.** Recorded only at St. Catherine's Pt. (m.o.). One on April 18th, 19th, 20th, 21st, and 23rd, 2 on May 8th and 21st and July 30th, and 1 on Aug. 23rd. The one on April 19th flew to W., but all the others to E.
- 194 **Great Skua.** Six seen flying E. past St. Catherine's Pt. in spring; 2 on April 2nd (EJW), 1 on April 18th, 20th, and 25th (MWB, JSi, WHT, AW), and 1 on May 5th (SLW).
- 200 **Herring Gull.** Only one nest was found at Newtown this year, but no eggs were known to have been laid (RJM).
- 201 **Common Gull.** 40 at Newtown on Sept. 18th (MMS).
- 203 **Iceland Gull.** An immature flew E. past St. Catherine's Pt. on April 18th (MWB, WHT, AW). This is only the second record for the Island.
- 207 **Little Gull.** 4 (an adult and 3 immatures) by Freshwater Causeway on Oct. 8th (JS). This species was unusually numerous in England during the autumn.
- 208 **Black-headed Gull.** The Newtown gullery, on the saltings S. of Brickfield Farm, was largely unsuccessful this year, due to theft

of most of the eggs early in the season and to flooding by a high tide later. The gulls then dispersed over a much larger area, and three main groups of nests were found : on the saltings just E. of the mouth of Newtown River, on an island further up the river, and in Newtown Marsh (GJL, RJM).

- 211 **Kittiwake.** 11 on May 22nd (EJW, DBW) and c. 25 on Oct. 11th (WHT, EJW) flew W. past St. Catherine's Pt., and there were numerous other records of up to 6 there.
- 212 **Black Tern.** 4 flew E. past St. Catherine's Pt. on May 8th (WHT, EJW), and 8 flew W. there on Aug. 28th (JSi, SLW, AW).
- 217-8 **Common Tern and Arctic Tern.** First on April 9th, at Newtown (RJM), and the last on Oct. 10th at St. Catherine's Pt. (WHT, EJW).

C. 200 in Solent off Burnt Wood on Aug. 8th, over 100 in Newtown Marsh during Aug. and early Sept., and 40 there on Sept. 18th (MMS).

- 223 **Sandwich Tern.** First 2 flying E. past St. Catherine's Pt. on April 2nd (EJW).
- 226 **Little Auk.** 2 flew separately W. past St. Catherine's Pt. on Nov. 26th (LM, DBW).
- 235 **Turtle Dove.** First on April 21st, at Brighstone (JS), and last on Oct. 8th, at St. Catherine's Pt. (RHD).
- 237 **Cuckoo.** First seen near Calbourne on April 9th (LK).
- 247 **Tawny Owl.** 2 heard at Alum Bay during the night of April 23rd-24th (NFOC).
- 249 **Short-eared Owl.** Single birds seen at St. Catherine's Pt. on Oct. 16th (RB, EJW), at Newtown on Oct. 28th and Nov. 1st (MMS), and on Headon Warren on Nov. 13th (JS).
- 255 **Swift.** First on April 23rd, at Alum Bay (NFOC) and Newtown (MMS), and several records the next day (m.o.). The last 2, seen at Newtown on Oct. 4th (MMS), were much later than usual, but in this late autumn there were numerous similar records in other parts of the country.

[**Roller.** One seen on Nov. 12th and 16th in a small garden not far from the centre of Ryde (PP). The description and sketch supplied establish that the bird was probably of the Indian species *Coracias benghalensis*, and it had presumably escaped from captivity.]

- 261 **Hoopoe.** Single birds seen at Newtown on April 20th (MMS) and at Bembridge on April 29th and May 2nd (CL).
- 271 **Woodlark.** One at Newtown on Jan. 18th (MMS). One flew S.W. over Headon Warren on April 23rd (NFOC).
- 272 **Skylark.** At St. Catherine's Pt. there were small movements daily, Oct. 9th-14th, mainly to W., then c. 100 flew W. on Oct. 15th and c. 185 flew W. on Oct. 16th (RB, WHT, EJW).
- 274 **Swallow.** 2 exceptionally early birds were flying round Apse Manor, near Shanklin, on Feb. 29th. One flew into a cottage there after dark on March 1st; it was put into a dairy, and was found

dead the next morning (VF). There were records in other parts of the country on these same dates.

Last at St. Catherine's Pt. on Nov. 26th (LM, DBW).

- 276 **House Martin.** First at St. Catherine's Pt. on April 22nd (WHT), and last at Shanklin on Nov. 15th (AJH).
- 277 **Sand Martin.** First at Yarmouth on April 20th (JS), and last at St. Catherine's Pt. on Oct. 13th (WHT, EJW).
- 279 **Raven.** Numerous records in March-May of 1 or 2 at the cliffs near the Needles (m.o.).
- 288 **Great Tit.** Ringing recovery; a first winter bird ringed (J78228) at Brighstone on Feb. 20th (JS) was killed by flying into glass at Wassenaar, near The Hague, Holland, about March 14th (ALM). It seems likely that this bird came to England during the irruption in the autumn of 1959.
- 293 **Willow Tit.** 2 at Newtown on April 21st (MMS).
- 296 **Nuthatch.** 2 were seen throughout the year in the grounds of Osborne (MMS, AJH). On May 6th and 10th one repeatedly visited a particular oak in Northwood Park, Cowes (RJM). Despite these records, and similar ones in recent years, the species has never been proved to nest in the Island.
- 302 **Fieldfare.** During cold weather early on Jan. 16th a large flock of Fieldfares and Redwings was heard passing over Newtown (MMS).
39 at Newtown on Oct. 16th (MMS) were the first of the winter.
- 304 **Redwing.** The first of the winter were 13 flying N.E. over St. Catherine's Pt. on Oct. 12th (WHT, EJW). See also under Fieldfare.
- 307 **Ring Ouzel.** 2 near the Needles on March 26th and 27th (WHT, EJW). 2 at Alum Bay on April 23rd (NFOC). One at St. Catherine's Pt. on Sept. 24th (RB, WHT, EJW), and 2 there on Oct. 10th (WHT, EJW). One at Alum Bay on Oct. 17th (JS).
- 308 **Blackbird.** A ♀ at Newport helped a pair of Robins to feed their nestlings (RJM).
- 311 **Wheatear.** First at St. Catherine's Pt. on March 19th (WHT, EJW), and last at Newtown on Oct. 29th (AJH).
- 317 **Stonechat.** Pairs were present in the breeding season at Compton Bay (JS), Freshwater (MMS), and Headon Warren (RJM, JS).
- 318 **Whinchat.** The first 3 were seen at St. Catherine's Pt. on April 20th (WHT), and the last 1 there on Oct. 10th (WHT, EJW). C. 30 along the cliff edge at St. Lawrence on Sept. 13th (TFT).
- 320 **Redstart.** First at Shanklin on April 4th (AJH), and last at St. Catherine's Pt. on Oct. 16th (RB, WHT, EJW).
- 321 **Black Redstart.** One at St. Catherine's Pt. on March 24th (RHD), and 3 there next day (JSi, AW). 2 in Alum Bay area on March 26th and 27th (WHT, EJW). 2 at Culver Cliff on April 4th (AJH). One near the Needles on April 18th (RB, AS, EJW). 2 at St. Catherine's Pt. on Oct. 16th (RB, WHT, EJW).

- 322 **Nightingale.** First heard between Calbourne and Newtown on April 9th (LK).
- 327 **Grasshopper Warbler.** As in other parts of the country (and as in 1959) the arrival was earlier than usual. One at Alum Bay, April 16th (AS); 1 at St. Catherine's Pt., April 21st (MDS, MT, WHT); 3 at Alum Bay, April 23rd, but none heard there next day (NFOC); 4 at St. Catherine's Pt. on April 25th, and 1 there on April 27th and 30th (JSi, JHT, AW); 1 at Alum Bay, May 1st (MCA) and 3rd (JS); 1 at St. Catherine's Pt., May 4th (SLW).
- 337 **Sedge Warbler.** First at Bembridge on March 30th (AJH). Last at St. Catherine's Pt. on Oct. 9th (RHD, WHT, SLW, EJW).
- 343 **Blackcap.** A ♀ in a Ryde garden on Jan. 3rd (DDS). Exceptional numbers were recorded throughout the country in the winter of 1959-60. (See the 1959 *Report* for a record in the previous month).
- 347 **Whitethroat.** First on April 16th (MWB, WHT, AW), and last on Oct. 11th (WHT, EJW), both at St. Catherine's Pt.
- 348 **Lesser Whitethroat.** At St. Catherine's Pt. 10 were recorded in spring, April 23rd-30th, and 19 in autumn, Aug. 24th-Sept. 11th, including 10 on Aug. 26th (m.o.). Also 2 at Alum Bay on May 1st (MCA).
- 352 **Dartford Warbler.** Several records in localities B and E during the breeding season (m.o.).
- 354 **Willow Warbler.** First at Osborne on April 7th (AJH), and last at St. Catherine's Pt. on Oct. 11th (WHT, EJW).
- 356 **Chiffchaff.** First 3 at Yarmouth on March 9th (IB, EJD), and last at Newtown on Oct. 29th (AJH).
- 357 **Wood Warbler.** One at St. Catherine's Pt. on April 21st (WHT). One in song on Westover Down on June 21st (MMS).
- 368 **Pied Flycatcher.** One at Brook on Aug. 6th (AJH), and 2 at Alum Bay on Aug. 30th (JS).
- 370 **Red-breasted Flycatcher.** A ♂ at Newport on June 19th (DKL), and a ♀ or immature ♂ at St. Catherine's Pt. on Sept. 25th (RB, WHT, EJW). Details have been supplied in each case.
- 379 **Rock Pipit.**
Water Pipit. One at Alum Bay on March 26th (WHT, EJW). One on the downs above the Needles cliffs on April 23rd could not be found next day (NFOC).
- 380 **Pied Wagtail.** On Dec. 1st 1 flew in to Bembridge from the direction of Selsey Bill (BWR).
White Wagtail. One at Newtown on Nov. 1st (MMS).
- 381 **Grey Wagtail.** Nested at Carisbrooke Waterworks (RJM).
- 382 **Yellow Wagtail.** First 3 on April 16th, flying N. over Headon Warren (RB, AS, EJW), and last on Oct. 15th, at St. Catherine's Pt. (RB, WHT, EJW). The largest movement at St. Catherine's Pt. occurred on Aug. 27th, when 117 flew out to sea to S.E. (JSi, SLW, AW).

- 389 **Starling.** Ringing recovery; an adult ♀ ringed (X54699) at Brighthstone on Jan. 23rd (JS) was shot at Lindau, Sachsen-Anhalt, E. Germany (52° 02'N., 12° 06'E.) on Oct. 4th.
- 393 **Goldfinch.** The largest movement at St. Catherine's Pt. occurred on Oct. 11th, when 538 flew past to W. (WHT, EJW).
- 394 **Siskin.** Recorded only at St. Catherine's Pt. One on Jan. 11th (EW). 3 flew W., and 3 others were heard, on Oct. 13th, and 3 flew W. on Oct. 14th (WHT, EJW).
- 395 **Linnet.** During the week Oct. 10th-16th the total recorded at St. Catherine's Pt. was c. 3650—nearly all flying W.—with a maximum of 1320 on the 11th (RB, WHT, EJW).
- 397 **Redpoll.** One at Shanklin on Jan. 16th (EMN). One at St. Catherine's Pt. on Oct. 16th (RB, WHT, EJW).
- 404 **Crossbill.** 5 flew W. past St. Catherine's Pt. on Aug. 26th (JSi, AW).
- 408 **Brambling.** 36 at Newtown on Jan. 17th (MMS). On April 2nd 15-20 were feeding with c. 350 Greenfinches and Chaffinches on rolled young corn near Bembridge Windmill (LK). 2 flew W. past St. Catherine's Pt. on Oct. 11th (WHT, EJW), as did 2 on Oct. 16th (RB, WHT, EJW).
- 415 **Girl Bunting.** Heard occasionally at Osborne during the breeding season (JS).
- 423 **Snow Bunting.** A ♂ at Newtown on Jan. 17th (MMS) and 24th (JS), and a juvenile there on Oct. 30th (m.o.).
- 425 **Tree Sparrow.** 10 were present at St. Catherine's Pt. on Jan. 9th (WHT), and 3 there on April 11th left to N.W. (EW). One flew N.E. over Headon Warren on April 24th (NFOC).

Further Species.—The following 57 species were recorded during 1960, in addition to those in the systematic list. The numbers refer to the B.O.U. *Check-List* (1952), and the species may be identified by reference to the *Reports* for 1953-7.

| | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 28 | 29 | 50 | 84 | 93 | 110 | 116 | 118 | 120 |
| 126 | 127 | 134 | 139 | 148 | 159 | 161 | 198 | 199 |
| 222 | 224 | 227 | 230 | 232 | 234 | 241 | 246 | 252 |
| 258 | 262 | 263 | 280 | 282 | 283 | 284 | 286 | 289 |
| 290 | 292 | 294 | 298 | 299 | 301 | 303 | 325 | 333 |
| 346 | 364 | 366 | 371 | 373 | 376 | 392 | 401 | 407 |
| 409 | 421 | 424 | | | | | | |

ADDENDUM TO THE BIRD REPORT FOR 1959.

- 360 **Yellow-browed Warbler.** On Oct. 12th, 1959, one was seen on board R.M.S. *Queen Elizabeth* between Cherbourg and Southampton (Dr. I. C. T. Nisbet—see *British Birds*, vol. 53, p. 426). When last seen it was 10-15 miles from St. Catherine's Pt. There is no doubt about the identification, but it is open to dispute whether this qualifies as an I.O.W. record. It is included here in accordance with our usual practice of publishing the occasional records received of birds seen at sea off the Island's shores. There is no previous record of the species for the Island.

THE SONG OF THE CUCKOO.

By J. D. JONES

The accompanying diagram records in terms of musical intervals the cuckoo calls I have heard during the summer of 1960. The total range of notes covers an augmented fifth beginning at the C a minor third above New Philharmonic A (439 at 68° F.). The thicker vertical lines indicate semitone intervals, and these are sub-divided by the thinner lines into quarter-tones, since the cuckoo was not obliging enough to keep to the diatonic scale. The pitch was checked in each case with the same tuning fork; no record was made of the temperature because no really significant variation in the pitch of the fork would arise from this factor. All the calls recorded consisted of two notes, the upper one sounding first. The times indicated are those when the call was first heard. In many cases, of course, the calls were repeated; the one of May 24th later continued on the same interval without interruption from 7.53 until 8.15 p.m.

One point that seems to emerge from the tabulated results is the relative stability on or around D of the lower note of the call during May. The bird (or birds) heard at Niton Undercliff on May 22nd had a slightly lower tessitura than his colleague(s) at Carisbrooke Castle, though the extent of the interval was much the same. Secondly, there is the striking extension of the interval to a perfect fifth on June 1st. In June—justifying the popular rhyme—the cuckoo really did change his tune.

J.D.J., 14-7-60.

| DATE | TIME | PLACE | C | C* | D | D* | E | F | F* | G | G* |
|----------|------------|--------------------|---|----|---|----|---|---|----|---|----|
| 1960 | | | | | | | | | | | |
| May 5th | 10.47 a.m. | Brightons Forest | | | | | | | | | |
| | 11.30 a.m. | Idlescombe Down | | | | | | | | | |
| | 12.15 p.m. | Bowcombe Down | | | | | | | | | |
| May 7th | 3.57 p.m. | Carisbrooke Castle | | | | | | | | | |
| | 8.55 p.m. | Carisbrooke Castle | | | | | | | | | |
| May 8th | 3.45 p.m. | Carisbrooke Castle | | | | | | | | | |
| May 12th | 4.59 p.m. | Carisbrooke Castle | | | | | | | | | |
| May 14th | 7.45 p.m. | Carisbrooke Castle | | | | | | | | | |
| May 16th | 9.12 p.m. | Carisbrooke Castle | | | | | | | | | |
| May 17th | 7.25 p.m. | Carisbrooke Castle | | | | | | | | | |
| May 22nd | 2.33 p.m. | Niton Undercliff | | | | | | | | | |
| | 6.55 p.m. | Niton Undercliff | | | | | | | | | |
| May 24th | 7.45 p.m. | Carisbrooke Castle | | | | | | | | | |
| May 29th | 1.45 p.m. | Carisbrooke Castle | | | | | | | | | |
| June 1st | 9.33 p.m. | Carisbrooke Castle | | | | | | | | | |
| June 2nd | 4.05 a.m. | Carisbrooke Castle | | | | | | | | | |

C C* D D* E F F* G G*

C C* D D* E F F* G G*

GREAT SPOTTED WOODPECKERS FEEDING ON BIRD TABLES

By J. STAFFORD

In the last few years Great Spotted Woodpeckers in many parts of the country have developed an apparently new habit of feeding on bird tables. A national inquiry was organised by Mrs. P. V. Upton, on behalf of the British Trust for Ornithology, to collect facts about this, and the questionnaire was completed by 15 observers in the Isle of Wight (mostly in response to an appeal in the *I.O.W. County Press*). The details are listed below, and include four negative records of birds which showed no interest in the proffered food.

It would be unwise to draw any firm conclusions from this information, and these must await the completion of the national inquiry. However, attention may be drawn to a few points of interest:—

- (a) The records are from most parts of the Island;
- (b) Fat (in various forms) is taken most often, followed by bread and coconut;
- (c) In one case (No. 6) the birds may have been taking the food to their young;
- (d) The habit may be learnt by watching or associating with other species (see Nos. 5 and 12).

Apart from these recent occurrences, there are two old records—a Great Spotted Woodpecker visited a bird table at Seaview regularly in the cold spring of 1932, and one drove Starlings away from a Bembridge bird table in 1939 (*Proc. I.O.W. N.H.A.S.*, vol. ii, p. 235, and vol. iii, p. 140).

The B.T.O. inquiry also concerned another apparently new habit of making destructive attacks on nest boxes. None of the 15 observers could report any instances of this.

The occurrences are listed in chronological order, and the following information is given in each case, as far as possible (some observers gave more details than others): the locality; the dates of the visits; whether the food was put on a bird table of the conventional type or in some other situation; the nature of the food which was put out and/or taken; and the observer's name. Acknowledgments are due to all the observers for taking the trouble to complete the questionnaire.

- 1 **Binstead.** 19th Jan. to 15th Feb., 1958; 13th Dec., 1959; 20th Feb., 1960. Table; food also put on lawn. Various food put out, including mixed seed and bread scraps; bread taken. Mrs. I. W. Gaskin.
- 2 **Brighstone.** Frequent in 1958; once in summer of 1959. No table; food hanging in tree. Dry bread taken. Mrs. M. K. Roach.
- 3 **Brighstone** (only a few yards from the preceding). Several visits during winter of 1958-59. Visited garden, but not seen to take any food. A. P. Norwood.

- 4 **Newport.** Fairly regular from Nov., 1958, to Jan., 1959. No table ; food in hanging wire basket. Fat only put out and taken. Dr. G. L. Peskett.
- 5 **Wootton.** Feb. and March, 1959, and Feb. 15th to March 8th, 1960. No table ; hanging strings of nuts and bones, and hanging pot of food. Not seen to take any food ; after watching tits, attempted unsuccessfully to hang on string of peanuts. Miss E. R. Cullin.
- 6 **Osborne, East Cowes.** Frequent visits in spring of 1959. Table. Fat, cakes, bread, and odd scraps put out and taken. Two birds were frequently seen filling their beaks with the food and taking it into nearby trees, as if they were feeding nestlings. Mrs. E. Penketh.
- 7 **Seaview.** Seen in winter of 1959-60. No table ; food hanging in tree. Large lumps of margarine, bread boats, and coconut put out and taken. Mrs. C. M. Moir.
- 8 **Bembridge.** Dec., 1959, and Jan., 1960. Table. Boiled fat only taken ; bread soaked in dripping, coconut, and various seeds also put out. Commander Conyers Lang.
- 9 **Alverstone.** Dec., 1959, and Jan., 1960. Table. Bread, fat meat, suet, and coconut taken. Miss W. J. Lale.
- 10 **Brighstone.** Several visits during winter of 1959-60. Table. Fat, bones, peanuts, coconut, bread, scraps, etc., put out, but none seen to be taken. The bird was several times seen extracting food from rotten fence posts only a few yards from the bird table ; at the same time the table was conspicuously in use by numerous birds of other species, but the woodpecker showed no interest in it. J. Stafford.
- 11 **Wootton.** Frequent from Jan. 8th to end of May, 1960, and only occasional from then to July, 1961. Table. Suet, meat bones, bacon rinds, and bread taken ; coconut also put out but ignored. Miss M. Jones.
- 12 **Cranmore, near Yarmouth.** 9th Jan. and 26th Feb., 1960. Table ; food also put on lawn. Seen feeding on lawn only, with other birds ; bread, table scraps, and fat put out, but it is not known which the bird took. Miss E. F. Bryan.
- 13 **Ventnor.** Two visits in mid-Jan., 1960. Table. Not seen to visit table. Miss V. R. Prior.
- 14 **Apse Manor, near Shanklin.** 6th Feb. and 11th March, 1960. Not seen to take any food. Miss V. Fisk.
- 15 **Bouldnor, near Yarmouth.** Frequent visits from Feb. 20th to April 6th, 1960. Two tables, both of which were visited. Fat preferred, but coconut sometimes taken. Mrs. E. V. Hawkesworth.

FLOWER RECORDS, 1960.

By Miss T. WHITE

This year has not provided many flower records and no doubt the rain in the later part of the year was partly responsible. Most of the reports came in during the early part of the year.

Miss Newnham was fortunate in finding *Aceras anthropophorum* at Shanklin on May 30th. The Man Orchid has not been found there for several years.

Mr. Russell found the GREEN HELLEBORE, *Helleborus viridis* in Woodhouse Copse.

Mrs. Frazer's discovery of *Calystegia pulchra* at Limerstone provided the only first record for the Island during 1960.

Miss Bullock found *Allium roseum*, ROSY GARLIC, at Bembridge; this was a new site; she also reported *Carum segetum*, CORN PARSLEY, at Yarmouth; *Papaver Argemone*, PALE POPPY at Ryde, and from Havenstreet *Potentilla Anglica*, TRAILING TORMENTIL.

Miss Kennedy reported *Vicia Tetrasperma*, SMOOTH TARE from Bouldnor.

On the Whitwell Road above St. Lawrence Miss Bennett and Miss Cowdray found on May 27th a fine specimen of *Muscari comosum*, TASSEL HYACINTH; no doubt a garden escape though very far from a garden.

Malus sylvestris, CRAB APPLE, was reported by various members from Park Farm, Hungerberry Copse, Hin Farm, Cowleaze, Rowland's Copse, and Firestone Copse, the latter having a distinct quince like scent.

Miss Bullock reported that the DOUBLE FLOWERED CINQUEFOIL was still to be found in the grounds of Osborne House.

BEE ORCHIDS, *Platanthera chlorantha*, were found on St. Boniface Downs in greater numbers than for the past few years.

AGRICULTURAL HISTORY OF THE ISLE OF WIGHT.

(A Bibliography of Farming, Enclosure of Common Lands, Land Drainage,
Reclamation of Tidal Lands, and Bee Keeping)

By R. H. ADAMS

Sir John Oglander. RECLAMATION AND CROPPING OF 700 ACRES OF BRADING HAVEN IN 1620. IN MSS. of Sir John Oglander, of Nunwell, Isle of Wight, 1595-1648. The records are preserved at Nunwell. Extracts have been printed under the title "Oglander Memoirs," ed. W. H. Long, Newport, I.O.W., 1888. The reclaimed land reverted to the sea when the sea embankment and sluice near Bembridge failed in 1630. In 1878, about the same area of land was again reclaimed from the haven by the Liberator Building Society. See Smiles, 1874.

John Hall, of Swainston, Isle of Wight. CORRESPONDENCE WITH JOHN KENDALL, AGENT TO SIR JOHN BARRINGTON, BARONET, OF HATFIELD BROADOAK, ESSEX. MSS. in possession of the Trustees of Carisbrooke Castle Museum, and Mr. R. D. Whittingham, of Carisbrooke. Barrington was M.P. for Newtown, I.O.W., 1640, 1660, and 1661. Hall was farm bailiff of the Swainston Estate. His colourful letters relate, *inter alia*, to farm management and rents, the reclamation of tidal lands at Newtown, I.O.W., and the Civil War.

His Majesty's Commission of Sewers for the Isle of Wight. LETTERS PATENT, COURT BOOKS, AND MISCELLANEOUS RECORDS RELATING TO LAND DRAINAGE, SEA DEFENCE, AND IRRIGATION ON THE SANDOWN AND BRADING LEVEL IN THE YAR VALLEY, 1713-1939. MSS. in possession of the Isle of Wight River Board and Trustees of Carisbrooke Castle Museum. The first Commission of Sewers for the Island was granted by Letters Patent at a date prior to 1631. The last Commission, granted in 1856, was abrogated on the formation of the Sandown and Brading Land Drainage Board in 1939.

Farmers Dennett, Phillips, Woodcock, and Bassett (or Bussill). FARM INVENTORIES AND APPRAISEMENTS, PRIORY FARM, ST. HELENS, ISLE OF WIGHT, 1746 and 1751. IN MSS. deposited with Carisbrooke Castle Museum by Miss L. Spencer Edwards, of The Priory, St. Helens, in 1927. The inventory of 1746 arose out of the insolvency of Farmer John Caws. The one of 1751 relates to stock, etc., when Farmer Barkham took over the farm. The Landowners in 1751 are stated to be Messrs. Bayley, Crouch, Nash, and Grose.

- Edward Lisle, of Crux Easton, Hants. **OBSERVATIONS IN HUSBANDRY**, London, 1757. Lisle died in 1727. His work was edited and published by his son, Rev. Thomas Lisle, Rector of Wootton, I.O.W., and Burelere, Hants.
- Matthew Peters, of Dublin and of the Isle of Wight. **THE RATIONAL FARMER, OR A TREATISE ON AGRICULTURE AND TILLAGE**. Newport, I.O.W., 1770; 2nd ed. London, 1771. The book does not refer specifically to farming on the Isle of Wight. The list of subscribers at the end of the book includes many of the landowners and farmers of the I.O.W. in 1770.
- Arthur Young. **FARMING IN THE ISLE OF WIGHT**. IN his "Farmer's Tour through the East of England," vol. 3, London, 1771.
- William Bailey. **DESCRIPTION OF DRAINING PLOUGH INVENTED BY WILLIAM KNOWLES, OF NEWPORT, ISLE OF WIGHT**. IN "Advancement of Arts, Manufactures and Commerce," vol. 1, London, 1772. Knowles received an award from the Royal Society of Arts for his invention.
- Lt.-Col. Barker. **PARTICULARS CONCERNING HUSBANDRY IN THE ISLE OF WIGHT**. IN "Annals of Agriculture," ed. Arthur Young, vol. 9, Bury St. Edmunds and London, 1788.
- Anonymous. **SHORT REPORT ON WHEAT CROP IN THE ISLE OF WIGHT, 1790**. IN "Annals of Agriculture," ed. Arthur Young, vol. 14, Bury St. Edmunds and London, 1790.
- Anonymous. **SHORT REPORT ON SHEEP FARMING IN THE ISLE OF WIGHT**. IN "Annals of Agriculture," ed. Arthur Young, vol. 17, Bury St. Edmunds and London, 1792.
- A. and W. Driver and Richard Warner. **GENERAL VIEW OF THE AGRICULTURE OF HAMPSHIRE AND THE ISLE OF WIGHT, 1794**. Report drawn up for the Board of Agriculture. The section on the Isle of Wight is reprinted in Warner's History of the Isle of Wight (Southampton), 1795.
- William Marshall. **FARMING AND ENCLOSURES IN THE ISLE OF WIGHT**. IN "Rural Economy of the Southern Counties," 2 vols., London, 1798; 2nd ed. 1799.
- Parish Agriculture Returns. **ESTIMATED ACREAGE OF SEPARATE CROPS IN EACH PARISH IN DIOCESE OF WINCHESTER IN 1801**. MSS. in Public Record Office, ref. H.O. 67. Returns are not available for Brading, Whippingham, Yaverland, and Carisbrooke St. Nicholas (see likewise Pelham, 1954).
- Anthony Bell. **GENERAL VIEW OF THE AGRICULTURE OF THE ISLE OF WIGHT, 1802**. Apparently not published. MSS. is in the library of the Royal Agricultural Society of England.

- Charles Vancouver. **GENERAL VIEW OF THE AGRICULTURE OF HAMPSHIRE AND THE ISLE OF WIGHT, 1810, 2nd ed., 1813.** Final Report drawn up for the Board of Agriculture.
- Disafforestation and Enclosure Award. PARKHURST FOREST AND OPEN COMMONABLE LANDS THEREIN.** Authorised by Local Act of 1812 (52 George 3, ch. 171.). Award enrolled on the Court of Common Pleas, Westminster, 13 June, 1815. Copy of award and map in possession of Borough of Newport, I.O.W. Area disafforested about 2500 acres, which included 415 acres of common and irregularly enclosed land. At the time, about two-thirds of the forest were in Carisbrooke parish. The remainder was extra-parochial, except for a few acres in Northwood parish.
- Insulanus. HINTS ON THE STATE OF AGRICULTURE IN THE ISLE OF WIGHT IN A LETTER ADDRESSED TO THE LAND OWNERS AND YEOMANRY,** Newport, I.O.W., undated (c.1830).
- John Nash, the Architect. **FARM IMPROVEMENT BOOK, HAMSTEAD ESTATE, ISLE OF WIGHT, 1830 to 1835.** Detailed accounts relating to (a) field and woodland drainage by means of tiles, faggots, and stones, (b) variety of other estate work, including a temporary railway from the quay at Lower Hamstead. Plans not included. Book, in MS, in possession of County Seely Library, Newport, I.O.W.
- Enclosure Award. CHALE COMMON.** Authorised by Enclosure Act, 1845. Award made on 19th November, 1852. It affected about 127 acres. Amendment to award made on 1st November, 1855. Copy of award and map are at the Public Record Office and a copy of the amendment only is at the Hampshire Record Office, Winchester.
- Enclosure Award. NORTON COMMON, FRESHWATER.** Authorised by Annual Enclosure Act, 1853. Award made on 15th December, 1859. It affected about 84 acres. Copies of award and map are at the Public Record Office and at Hampshire Record Office, Winchester.
- Enclosure Award. APPLEFORD, DOLLCOPPICE, ROUD, RAMSDOWN, AND CHILLERTON IN THE PARISHES OF GODSHILL, CARISBROOKE (DETACHED) AND WOOTTON (DETACHED).** Authorised by Annual Enclosure Act, 1853. Award made on 3rd May, 1860. It affected 582 acres at Appleford and Dollcoppice; 349 acres at Roud; 180 acres at Ramsdown, and 80 acres of small holdings at Chillerton. Copy of award and map are in the possession of Isle of Wight County Council.
- Enclosure Award. NITON HEAD DOWN AND UPPER AND LOWER FIELDS.** Authorised by Annual Enclosure Act, 1856. Award made 14th May, 1859. It affected a total of about 457 acres. Copies of award and map are at the Public Record Office and at the Hampshire Record Office, Winchester.

- Anonymous. FARM ACCOUNT BOOK, WEST STANDEN FARM, NEAR NEWPORT, I.O.W., 1861 to 1868. IN MS. Deposited with Carisbrooke Castle Museum before 1920.
- Enclosure Award. EASTON COMMON FIELDS, FRESHWATER. Authorised by Annual Enclosure Act, 1861. Award made 5th December, 1866. It affected about 37 acres. Copies of award and map are at Public Record Office and at Hampshire Record Office, Winchester.
- Rev. John Wilkinson, of Broughton Gifford, Wilts. THE FARMING OF HAMPSHIRE AND THE ISLE OF WIGHT. IN Journal Royal Agricultural Society of England, vol. 22, London, 1861.
- Robert B. Sewell. AGRICULTURE. IN Rev. Edmund Venables' "Guide to the Isle of Wight," London; Stanford, 1860.
- James E. Thorold Rogers. HISTORY OF AGRICULTURE AND PRICES IN ENGLAND, 1259-1793, London; Oxford University Press, 7 volumes, 1866-1903. Volume 1 records, *inter alia*, farm prices at Bowcombe and Carisbrooke, in the 13th and 14th centuries.
- Samuel Smiles. EMBANKING AND RECLAMATION OF 700 ACRES OF BRADING HAVEN BY SIR HUGH MIDDLETON IN 1620. IN Smiles' "Lives of the Engineers," vol. 1, London, 1874; another ed. 1904. The embankment failed in 1630. The land reverted to the sea until 1878 when it was again reclaimed by the Liberator Building Society. See Oglander, 1620.
- T. W. Shore. PARKHURST FOREST. IN "Ancient Hampshire Forests and the Geological Conditions of their Growth." Proceedings Hampshire Field Club, vol. 1, part 2, 1888.
- H. M. Cooper, of Thorley, Isle of Wight. DISEASE AMONGST BEES. I.O.W. County Press, Newport, I.O.W., November, 1906. The first report on the Isle of Wight Bee Disease.
- H. M. Cooper, A. D. Imms, and Others. ISLE OF WIGHT BEE DISEASE. IN British Bee Journal, vol. 34, London, 1906; vol. 35, 1907; and vol. 36, 1908.
- H. M. Cooper. IS IT ORDINARY BEE PARALYSIS. IN Irish Bee Journal, ed. Rev. J. G. Digges, vol. 6, no. 9, Lough Rynn, Co. Leitrim, February, 1907.
- Board of Agriculture. PRELIMINARY REPORT ON A DISEASE OF BEES IN THE ISLE OF WIGHT. IN Journal of the Board, London, June, 1907. Report drawn up by A. D. Imms.
- W. H. R. Curtler. AGRICULTURE. IN Victoria History of Hampshire and the Isle of Wight, vol. 5, London; Constable, 1912.
- Board of Agriculture. REPORT ON THE ISLE OF WIGHT BEE DISEASE. Supplement No. 8 to the Board's Journal, London, May, 1912; and Supplement No. 19 to the Journal, June, 1913. Reports drawn up by Graham-Smith, Fantham, Porter, Bullamere, and Malden.

- John Rennie and Elsie J. Harvey for University of Aberdeen. ISLE OF WIGHT DISEASE OF HIVE BEES. IN *Scottish Journal of Agriculture*, vol. 2, no. 2, Edinburgh, April, 1919.
- Philip Bruce White, Elsie J. Harvey, and John Rennie. ISLE OF WIGHT DISEASE IN HIVE BEES. *Transactions Royal Society of Edinburgh*, vol. 52, part 4, no. 29, Edinburgh, 1921.
- F. W. H. Green. THE LAND OF BRITAIN: HAMPSHIRE AND THE ISLE OF WIGHT, London, 1940. Part No. 89 of the Land Utilization Survey of Great Britain directed by L. Dudley Stamp for the London School of Economics.
- Isle of Wight River Board. STATUTORY ANNUAL REPORT ON LAND DRAINAGE, SEA DEFENCE, AND RIVER CONSERVANCY. 1st Report, Newport, I.O.W., 1950-51. Annually thereafter.
- G. E. Fussell. FOUR CENTURIES OF FARMING SYSTEMS IN HAMPSHIRE, 1500-1900. IN *Papers and Proceedings of the Hampshire Field Club and Archaeological Society*, vol. 17, pt. 3, Southampton, 1952.
- R. A. Pelham. AGRICULTURAL REVOLUTION IN HAMPSHIRE AND THE ISLE OF WIGHT WITH SPECIAL REFERENCE TO THE ACREAGE RETURNS OF 1801. IN *Papers and Proceedings of the Hampshire Field Club and Archaeological Society*, vol. 18, Southampton, 1954. (See likewise Parish Agriculture Returns, 1801).
- J. J. S. Webster. FARMING CAMEO No. 13; ISLE OF WIGHT. IN *Agriculture; Journal of the Ministry of Agriculture*, vol. 58, no. 8, November, 1951.
- G. F. C. Wheeler. ARRETTON VALLEY; FARMING CAMEO, SERIES 2, No. 26. IN *Agriculture: Journal of the Ministry of Agriculture*, vol. 67, no. 3, London, June, 1960. Reprinted in *Isle of Wight Farmers' Journal*, vol. 4, no. 5, October, 1960, published by the I.O.W. Branch of the National Farmers' Union.
- State Papers, Calendar of Letters and Papers, Foreign and Domestic, Henry VIII. GRANT OF A COMMISSION OF SEWERS FOR NEWTOWN MARSH, ISLE OF WIGHT, AND CADLAND MARSH, FAWLEY, HANTS. Paper No. 942, para. no. 14, July, 1540. Twenty-one commissioners are named. In so far as Newtown is concerned, I cannot trace evidence that they took any practical steps.

METEOROLOGICAL REPORT FOR 1960.

This summary was compiled by Mr. H. Hoare, Meteorological Officer for Shanklin.

The Maximum, Minimum, Wet and Dry Bulb Thermometers, and the Rain Gauge are situated in Big Mede, Church Road, 180ft. above sea level.

The Sunshine Recorder and Weather Vane are on the roof of the Town Hall.

Readings are taken at 0900 hours and 1800 hours daily, G.M.T.

1960 GAVE SHANKLIN ITS WORST-EVER WEATHER. BIG DROP IN SUNSHINE AVERAGE.

During 1960—when every previous bad weather record went by the board—Shanklin had 174 hours less sunshine than average. This is revealed in the annual report of the town's meteorological officer, Mr. H. Hoare.

The first half of the year was, on the whole, pleasant and uneventful, ending with a very sunny June, and not giving the slightest indication of the "ghastly strain" that 1960 was going to have on meteorological records.

In his report for June Mr. Hoare expressed the hope that the 76 hours' deficiency in sunshine recorded would be made good in the ensuing months. That hope was shattered each month onwards and the deficiency at the end of the year was 174 hours.

Rainfall figures take precedence over all else in 1960.

Shanklin fortunately escaped the severe January snowstorms which affected many places on the south coast, causing deep drifts and making roads impassable.

SATURATED.

By late September the ground reached saturation point and from then on even moderate downpours caused frequent flooding, and on the mainland torrential rainfall with a 24-hour measurement of an inch or more caused severe flooding and financial loss to thousands.

Apart from some bad flooding in the Island, particularly in Newport on September 30th and October 1st, when 3.37in. of rain fell, Shanklin once again was more than fortunate.

Sunshine for 1960 was 1803.1 hours—174 hours below the 12-year average, and 431 hours short of last year's record-breaking total of 2234.7 hours.

WETTEST EVER.

The 53.89 inches of rain was easily the highest ever recorded in the town (the 24-year average is 35.31 inches). There were 10 occasions when an inch or more fell during 24 hours, equalling the 1928 and 1951 records.

Snow was recorded on 13 occasions, but only in minor amounts. Thunder was reported 15 times, hail 10, and gales five times.

There were no remarkable extremes of temperature, the highest maximum screen temperature reaching only 78 degrees on June 26th. The latest frost before summer was recorded on April 27th, 13 and eight days later respectively than in 1958 and 1959.

A monthly account of the weather compiled by Mr. Hoare is also of interest.

JANUARY.

Exceptionally mild weather continued for the first five days with screen temperatures well in the 50s. From the 6th onwards it grew progressively colder, the night temperature on the 14th recording nine degrees of frost. Very light snow squalls occurred on six days, rainfall was a little below average, and there were 11 hours less sunshine than normal.

FEBRUARY.

A month of varied weather with a cold spell in the middle, and several springlike days with sunshine averaging between eight and nine hours daily. Rainfall was normal, light snow squalls occurred on four days. On the 17th a night temperature of 24 degrees was recorded.

MARCH.

A poor month, with winds mainly from the east and the lowest sunshine total since records commenced in 1947. Rainfall was half an inch above the average, and despite the easterly winds, frequent mists and low sunshine totals, temperatures were normal.

APRIL.

The weather during April had two quite distinct phases. Changeable during the first fortnight with light rains on most days and a complete drought in the second half. Both rain and sunshine were below average.

MAY.

The drought continued to the 10th, but from then onwards there were frequent mists and rain with a below average sunshine total. Rainfall was a little higher.

JUNE.

A vintage month and but for the prevalence of mist during the last few days sunshine would have been exceptional. The total was just under 300 hours. Rainfall was slightly below the average.

JULY, AUGUST, SEPTEMBER, AND OCTOBER.

These, unfortunately, can be grouped together as exceptionally wet, at times very windy and all with sunshine totals well below average, and could well be given a new classification "Minus three stars."

NOVEMBER.

Another exceptionally wet month with 7.48 inches of rain (nearly 3 inches above the average). It was unusually mild and sunny and it was hoped that we were in for a dry spell.

DECEMBER.

This hope was soon dashed with over 3 inches of rain falling during the first 10 days. Rain fell on 24 out of the 31 days and there were occasional hail showers and light scurries of snow and sleet. Very fortunately, from Christmas Day to the 31st, the long overdue sun made some amends and the six days were reminiscent of spring.

History was made on the 5th when the rainfall total topped the 50 inch mark, an event which is most unlikely to occur again for a century.

1960 WEATHER CHART.

| Month | Temperatures | | | | Dry | Wet | Rainfall Inches | Sunshine Hours. | |
|--------------|--------------|------|----------|----|------|------|--------------------|--------------------|------|
| | Max. | Min. | Extremes | | | | | | Mean |
| | Mean | | | | | | | | |
| Jan. | 45·0 | 37·1 | 53 | 23 | 41·1 | 40·0 | 4·78 | 52·9 | |
| Feb. | 45·9 | 36·9 | 57 | 24 | 41·5 | 39·5 | 2·68 | 101·4 | |
| March | 47·4 | 41·2 | 52 | 36 | 44·5 | 43·0 | 2·65 | 90·2 | |
| April | 54·5 | 42·0 | 65 | 32 | 48·6 | 46·3 | 1·21 | 197·1 | |
| May | 61·0 | 48·5 | 69 | 42 | 56·1 | 53·3 | 1·97 | 225·0 | |
| June | 65·6 | 53·0 | 78 | 44 | 59·8 | 57·3 | 1·81 | 295·2 | |
| July | 63·7 | 55·3 | 68 | 46 | 60·4 | 57·8 | 3·92 | 207·6 | |
| Aug. | 65·2 | 54·7 | 71 | 46 | 61·1 | 58·8 | 6·34 | 221·2 | |
| Sept. | 62·9 | 52·9 | 71 | 45 | 58·4 | 56·3 | 6·01 | 156·8 | |
| Oct. | 57·2 | 48·3 | 64 | 35 | 53·2 | 51·7 | 8·77 | 105·7 | |
| Nov. | 53·0 | 44·0 | 61 | 32 | 48·7 | 46·9 | 7·64 | 91·7 | |
| Dec. | 45·3 | 37·3 | 54 | 30 | 41·7 | 41·0 | 6·11 | 58·3 | |
| Total | | | | | | | 53·89 | 1803·1 | |

STRANGE WEATHER IN 1648.

Whilst on the subject of rainfall, it would perhaps be topical and possibly consoling to quote a passage from the Royalists Notebook (the life of Sir John Oglander) in the good old days :

“ This summer of the King’s being here was a very strange year in all His Majesty’s three Kingdoms, if we duly consider the heavens, men, and earth. To leave men and their nature to themselves, for it was never more truly verified than now—*homo homini lupus*.

I conceive the heavens were offended with us for our offence committed to one another for from Mayday till the 15th of September we had scarce three dry days together. Men made an ill shift with their wheat. When a dry day came they would reap and carry it presently to the barns, although they mowed it wet. His Majesty asked me whether that weather was usual in the Island. I told him that in this 40 years I never knew the like before. As for the earth it is turned to water. The rivers in the main have overflown all their neighbouring fields, the rich vales stand knee deep with water and, with the current, much corn is carried away and haycocks swimming up and down. In our Island the earth was drunk, and you might in August have gone with boat from Sandham (Sandown) two miles beyond Heasley and this is remarkable. On Thursday being the 7th of September, the General Thanksgiving Day for killing the Scots and divers others in other places, it was from morning to night the horridest rainy day as I ever saw, inasmuch as, instead of rejoicing, many had heavy hearts to see their corn spoilt, and wished it had been a day rather of humiliation than of joy and merriment. To conclude, there was almost no travelling on the earth by reason of the floods, and bogs in the highways that the rains and travelling made. God mend all. First let us repent all our bloody sins, then we shall find His mercy and the earth will be again propitious unto us which God grant.”

