EDINBURGH GEOLOGICAL SOCIETY

Annual Report and Proceedings

178th Session
2011 - 2012
www.edinburghgeolsoc.org

A charity registered in Scotland SC 008011
Edinburgh Geological Society

Table of Contents
Welcome .......................................................................................................................... 1
Legal and Administrative Information ................................................................. 1
Structure, Governance and Management ............................................................. 4
Achievements and Performance ........................................................................... 6
Financial Review ..................................................................................................... 10
Independent Examiner’s Report to the Trustees ............................................... 12
Statement of Financial Activities including Income and Expenditure Account for the year ended 30th September 2012 .................................................. 13
Balance Sheet as at 30th September 2012 .......................................................... 14
Notes forming part of the Financial Statements ............................................... 15
Obituaries .................................................................................................................... 19

Members of the Society in Glen Sannox on the Weekend Excursion to Arran. © Bob Morley.

Cover image: Members of the Society examine the Craig Of Monievreckie Conglomerate on a Day Excursion to Keltie Water. © Mike Browne.
Welcome
The Council of the Edinburgh Geological Society takes great pleasure in presenting our Annual Report and Accounts for the year ending 30th September 2012. The Society has had a busy year, hosting successful and well-supported programmes of lectures and excursions, and recorded a steady influx of new members.

Graham Leslie, President

Legal and Administrative Information
Charity Name: Edinburgh Geological Society
Scottish Charity Number: SC 008011
Revenue & Customs No.: CR 30310
Registered Office: None
Official Contact Address: c/o Mr R Morley, Flat 3, 27 Sunbury Street, Edinburgh EH4 3BU

Council 2012 (Elected 18th January 2012)
President: Graham Leslie
Vice-Presidents: Christine Thompson, Mike Browne
Immediate Past President: Angus Macpherson
Secretary: Beverly Bergman
Treasurer: Bob Morley
Membership Secretary: Andrew Rushworth
Lectures Secretary: Kathryn Goodenough
Excursions Secretary: Richard Smith
Assistant Secretary (Billet): Sarah Bailey
Publication Sales Officer: Angus Miller
Librarian & Archivist: Bob McIntosh
Scientific Editors: Rob Duck, Ian Alsop

Independent Examiner
Julian Cordery of Gibson McKerrell Brown LLP, 14 Rutland Square, Edinburgh EH1 2BD

Bankers
Bank of Scotland, 1 Liberton Drive, Edinburgh EH16 6NL

Investment Managers
Brewin Dolphin Securities Ltd, 7 Drumsheugh Gdns, Edinburgh EH3 7QH

Solicitors
Simpson & Marwick, Albany House, 58 Albany Street, Edinburgh EH1 3QR.
Structure, Governance and Management

Objectives and Activities
The Society was founded in 1834, and its objectives are the stimulation and encouragement of public interest in geology and the advancement of geological knowledge by such means as public lectures, symposia, conferences, the reading and discussion of original papers, excursions, exhibitions, the maintenance of a geological library, the publication of the *Scottish Journal of Geology* jointly with the Geological Society of Glasgow, and the production of any other geological publications which may be considered desirable.

Governing Document
The Society is recognised by the Scottish Charity Regulator and HM Revenue and Customs as a Charity. Its governing document is the Laws of the Society, as amended by the membership of the Society at Special General Meetings called for the purpose. The members of the Council of the Society act as charity trustees, as defined in the Charities and Trustee Investment (Scotland) Act 2005, in having the general control and management of the administration of the Society.

The Laws of the Society were revised at a Special General Meeting on 2 November 2011. The main changes from the existing Laws were:

1. The addition of a new Law 3 specifying the powers of the Society.
2. The consolidation into an Annex of the present Laws on the categories of members and the annual subscriptions for which they shall be liable.
3. The updating of Law 5 to reflect current practice on services provided by members of the Society.
4. The amendment of Law 7 and the removal of the Code of Procedure from the Appendix in order to simplify the provisions on the expulsion of members.
5. The amendment of Law 11 (which now becomes Law 10) to show changes in the duties of the President and Vice-Presidents already approved by Council.

Recruitment and Appointment of Council
Council is elected at the Annual General Meeting of the Society, held in January each year. The President and Vice-Presidents each serve on Council for two years, and the revision of the Laws introduced the post of Immediate Past President that the President may hold for up to 2 years on demitting office. Other office bearers are elected annually, but there is no limit on the number of years for which they may be re-elected. There are up to six Ordinary Members of Council who are each elected for 3 years.
**Trustee Induction and Training**
A Trustee Induction Pack is given to all new Council members and prospective members, to ensure that they are aware of their duties under the 2005 Act and understand their legal responsibilities as Trustees of the Society. Office bearers have generally been members of the Society for several years.

**Risk Management**
The Society aims to break even financially over short periods of years and Council reviews the financial outlook to help achieve this. The portfolio of investments provides a buffer in case of need.

A risk assessment is carried out for each field excursion, and includes a description of the terrain to be encountered and emphasises particular hazards such as uneven ground, slippery or unstable surfaces or sheer drops. Walking distances and the nature of any ascents or descents are also specified. Information on such hazards, and the level of fitness required by participants, is included in the published excursion programme.

The Society is insured against third party liability arising from claims resulting from the Society’s activities during excursions and site work by Geoconservation Group members. This insurance is provided through the Geologists’ Association, to which the Society is affiliated.

**Organisational Structure**
The Society has a Council of 19 members who are responsible for the strategic direction and policy of the Society. All Council members are voluntary and unpaid. The Society has no paid employees.

Sub-committees manage particular aspects of the Society’s work. During the year, the Planning and Finance committees were combined into one committee since their remits often overlap. Other committees are Publications, Excursions and Grants (The Clough Committee).

**Related parties**
Lothian and Borders GeoConservation, Tayside Geodiversity and Stirling and Clackmannan RIGS are involved in designating, publicising and helping to maintain Local Geodiversity Sites in their respective areas, and are sub-committees of the Edinburgh Geological Society.

The *Scottish Journal of Geology* is owned jointly by the Edinburgh Geological Society and the Geological Society of Glasgow. Each Society appoints two scientific editors to sit on the board.

The Society is a founding member of the Scottish Geodiversity Forum, which aims to promote Scotland’s geodiversity, and seeks to widen the profile of geodiversity and influence national and local policies. The Society is also affiliated to the Geologists’ Association.
Achievements and Performance

Overview
The Society had a successful year in pursuing its objectives of the stimulation and encouragement of public interest in geology and the advancement of geological knowledge. The programmes of lectures and excursions were well attended. The Society signed Scotland's Geodiversity Charter, which was published by the Scottish Geodiversity Forum. Support was offered to the Edinburgh branch of the University of the Third Age to start a new geology group, which has proved very popular in its first year. Our affiliated local geoconservation groups continued to be active, with Lothian and Borders GeoConservation and Tayside Geodiversity preparing material for new leaflets.

Council
The Council met 7 times during the year, and maintained an overview of the full range of activities of the Society. Council members continued to work hard at controlling expenditure, and were able to use surplus funds to support several initiatives including a grant of £1,000 to Lothian and Borders GeoConservation to fund leaflet production, and a grant of £100 to the Lapworth Museum of Geology at the University of Birmingham.

The Finance and Planning Committee, under the chairmanship of Lilian D'Mello, considered in detail several issues connected with the smooth running of the Society, including arrangements for distribution of the Billet and The Edinburgh Geologist.

Membership
During the year total membership rose slightly from 541 to 544, with 47 new Fellows elected to the Society. Mr Andrew McMillan, already an Ordinary Fellow, was elected a Distinguished Fellow. A total of 44 Fellows either resigned, died or did not renew their subscription. The number of Fellows, by membership category, at 30 September 2012 is shown below:

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honorary Fellows</td>
<td>8</td>
</tr>
<tr>
<td>Distinguished Fellows</td>
<td>4</td>
</tr>
<tr>
<td>Corresponding Fellows</td>
<td>7</td>
</tr>
<tr>
<td>Life Fellows</td>
<td>12</td>
</tr>
<tr>
<td>Ordinary Fellows</td>
<td>396</td>
</tr>
<tr>
<td>Total</td>
<td>544</td>
</tr>
</tbody>
</table>
Lectures Programme 2011-2012
The programme, organised by Lectures Secretary Kathryn Goodenough, consisted of 13 meetings. They were well received, with healthy attendances. Fellows' Night and the social evening took place at BGS Murchison House in early December, where a sizeable audience enjoyed a selection of short presentations and a wine and cheese reception, arranged by John Mendum. The Society does not pay a fee to speakers and is very appreciative of the time and expertise that they give so willingly.

Lectures held during the session were:

2011
28th Sep  Joint lecture with School of Geosciences, Edinburgh University. Professor David Green (University of Tasmania). Are 'Hotspots' Hot? - Plate Tectonics without Deep Mantle Thermal Plumes
19th Oct  Professor Jim Floyd (Heriot-Watt University). Geology and Architecture in South Scotland.
2nd Nov   Dr Adrian Finch (St Andrews University). Coral Aragonite: Rosetta Stone of Past Climates or Another Useless Rock?
16th Nov  Presentation of the Clough Medal. Professor Ben Harte (University of Edinburgh). The Evolution of a Mesozoic Subducted Slab beneath Gondwanaland tracked by Mineral Inclusions in Deep Diamonds.
30th Nov  Professor Rob Butler (University of Aberdeen). Continental Collision and How the Crust Deforms: early ideas from the Scottish Highlands to active deformation in the Himalayas.
14th Dec  Fellows' Night and Social Evening at BGS, Murchison House.

2012
18th Jan  Gawen Jenkin (University of Leicester). Finding gold - from the Solomon Islands to Scotland.
15th Feb  Stuart Gilfillan (University of Edinburgh). Fuelling the Future with Carbon Capture and Storage - can black be green?
29th Feb  Joint Lecture with the Mining Institute of Scotland. Nick Watson (Wardell Armstrong), Geotechnical challenges in mining.
28th Mar  Richard Harrison (Cambridge University). From climate change to life on Mars: what did magnetic minerals ever do for us?
12th Apr  Joint Celebrity Lecture with the Geological Society of Glasgow (in Glasgow). Peter Cawood (University of St Andrews).
**Excursions Programme 2012**
The programme arranged by Excursions Secretary Richard Smith comprised six Saturday and six Wednesday evening excursions. It was well attended and all excursions were greatly enjoyed by the participants. The Society does not pay a fee to Leaders and is very appreciative of the time and expertise that they give so willingly. The Excursions were:

- **Sat 28th Apr**  North Berwick Shore. Leader: Fiona McGibbon
- **Sat 12th May**  Callander & the Lower Keltie Water. Leader: Mike Browne
- **Wed 16th May**  North Bridge & Scotsman Steps. Leader: Andrew McMillan
- **Sat 9th Jun**  Limestones in Lothian & Fife. Leader: Al McGowan
- **Wed 13th Jun**  East Kirkton Quarry. Leader: Bob Reekie
- **Wed 20th Jun**  Holyrood Park - Whinny Hill. Leader: Angus Miller
- **Sat 23rd Jun**  Fossil Fish in Angus & Tayside. Leader: Bob Davidson
- **Wed 4th Jul**  Torphin and Warklaw Hill. Leader: Richard Smith
- **Wed 25th Jul**  Stone Conservation in Edinburgh Graveyards. Leader: Susan Buckham
- **Sat 1st Sep**  Tomnadashan Copper & Tyndrum Deposits. Leader: Ben Harte
- **Sat 6th Oct**  Greenburn Surface Mine. Leader: Giles Hemmings

In May, the very successful Long Excursion to Mull was led by Dr John Faithfull, and organised by Anne Burgess. Lilian d'Mello organised an excellent weekend excursion to the Isle of Arran, led by Stuart Monro and other members of the party.

**Publications**
No new publications were produced during the year, and sales of existing publications fell by about 30%. The recent NMS joint publications tend to show a significant drop-off after their early years, although the Northwest Highlands Excursion guide, published in 2010, was reprinted and is selling well. The Society began to accept online payments for publications, which has reduced the workload involved in processing sales.

Ian Jackson stepped down after nearly 10 years as Publications Sales Officer, and he is warmly thanked for the huge amount of work he has carried out behind the scenes to ensure that the Society’s publications were managed effectively.

Work continued on excursion guides to the Stirling and Perth area and Mull, and a reprint of the Assynt Mecca publication. Two editions of *The Edinburgh Geologist*, were issued under the editorship of Phil Stone and
Bob McIntosh, and Sarah Bailey edited three Billets. Publication of the *Scottish Journal of Geology* continued through the Geological Society Publishing House and two full issues were issued, comprising Volume 47, Part 2 and Volume 48, Part 1. Work continued preparing the Transactions of the Edinburgh and Glasgow Societies for online publication.

**The Clough Medal, the Clough Memorial Award and Research Grants**

The Clough Medal for 2011-2012 was awarded to Professor Ben Harte in recognition of his outstanding and long record of research into the fundamental processes of metamorphism and the behaviour of the mantle, based on observations made in Scotland and worldwide.

One fieldwork grant of £300 was awarded from the Clough Fund to Dr Steffi Burchardt of Uppsala University, for a project on the Isle of Rum. Brief reports from fieldwork supported by the Society in recent years are posted on our website.

**Geoconservation Groups**

The Lothian and Borders GeoConservation committee met quarterly and continued its work on the monitoring and designation of Local Geodiversity Sites. The Volunteer Group met monthly during the winter. A leaflet for the Redhall section of the Water of Leith was completed and the group worked with Alex Crabtree, an undergraduate geosciences student at Edinburgh University, on a leaflet for Siccar Point.

The Volunteer Group was involved in several public events including Volcano Fun Day in Holyrood Park and the Dunbar Science Festival and members of the group led a number of evening walks as part of the Society’s Excursions Programme.

Mike Browne, chair of Lothian and Borders GeoConservation, was re-elected as chair of the national body, GeoConservation UK.

**Sponsored Projects**

The Society coordinated a project to supply free maps and Rock Boxes to schools, to encourage teaching about Scotland's rocks and landscape within the Curriculum for Excellence. This project was funded by a generous donation from a Society member and another from Keele University. A total of 49 boxes were distributed during the year.

**Acknowledgements**

The affairs of the Society are organised entirely by voluntary effort. Members of Council jointly contribute hundreds of hours of time to the running of the Society, much of this in quiet ways behind the scenes. Council is supported by many other people, including lecturers, excursion leaders and organisers. Bob Gatliff, Head of Station, BGS Edinburgh, is thanked for accommodating the Society at Murchison House for lectures and meetings.

page 9
Financial Review
The Society’s activities were maintained at a similar level to that of previous years. The surplus on revenue account was £4,509 compared with £9,079 in 2010-11 though of this only £3,998 is available for the Society’s general use (£4,388 in 2010-11). The balance relates to Restricted Funds (mainly sponsored projects and the Clough and Mykura Funds). The net assets of the Society rose by £7,321 over the year.

Principal Funding Sources
The Society’s principal source of income continues to be membership subscriptions and this is supplemented by tax refunds in respect of members who gift aid their subscriptions. Other important sources are sales of the Society’s publications and income from the Society’s investments. Income from excursions is used to pay for, or at least defray, the costs of the excursions. The Society has also received sponsorship for a number of special projects and much of these monies have yet to be disbursed.

Expenditure
Expenditure continued at a similar level to last year.

Investment Policy
The Society employs Brewin Dolphin Securities Ltd as its investment managers and they have discretion to manage the portfolio on a day-to-day basis without reference to the Society. Their remit is to provide growth with a medium risk profile, while maintaining investment income at about current levels. At present a little over half of the Society’s funds are invested in equities, mainly through composite vehicles, with the remainder being in fixed interest securities, mainly corporate bonds.

Reserves Policy
The Society has accumulated reserves of £96,145. 30% of these are Restricted Funds and are set aside for the purposes of those funds. The Society aims to break even financially over short periods of years and as net income / expenditure is small in relation to activities undertaken the remaining reserves provide a most useful buffer against unexpected contingencies, together with valuable investment income.

Plans for Future Periods
The Society plans to continue its core programmes of lectures, excursions and publications. Costs and revenue are always under pressure and require continual care from the Society’s Council and Officers. Costs generally continue to rise and the Society seeks to offset this by attracting new members, encouraging the use of Gift Aid and the use of budgetary measures. Production of excursion guides continues and is being paced and costed carefully.
Responsibilities of Council
Council accepts its responsibility for the preparation of financial statements for each financial year which give a true and fair view of the affairs of the Society and of the surplus or deficit for the period. In preparing those financial statements, Council is required to:
- select suitable accounting policies and apply them consistently;
- make judgments and estimates that are reasonable and prudent;
- state whether applicable accounting statements or statements of recommended practice have been followed, subject to any departures disclosed or explained by the financial statements and
- prepare the financial statements on the going - concern basis unless it is inappropriate to assume that the Society will continue in existence.

Council also accepts its responsibility for keeping proper accounting records which disclose with reasonable accuracy at any time the financial position of the Society and enable it to ensure that the financial statements comply with the Charities and Trustees Investment (Scotland) Act 2005 and the Charities Accounts (Scotland) Regulations 2006.

Council is also responsible for safeguarding the assets of the Society and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

Independent Examiner
Julian Cordery of Gibson McKerrell Brown LLP was appointed Independent Examiner during the year following the retirement of Mr L H Stewart. He has expressed his willingness to continue in that capacity.

Approved by the Council of the Edinburgh Geological Society and signed on its behalf by

Graham Leslie, President
12 December 2012
Independent Examiner’s report to the Trustees of the Edinburgh Geological Society

I report on the financial statements of the charity for the year ended 30th September 2012, which are set out on pages 13 to 18.

Respective responsibilities of Trustees and Examiner

The charity's trustees are responsible for the preparation of the accounts in accordance with the terms of the Charities and Trustee Investment (Scotland) Act 2005 and the Charities Accounts (Scotland) Regulations 2006. The charity's trustees consider that the audit requirement of Regulation 10(1)(a to c) of the 2006 Regulations does not apply. It is my responsibility to examine the accounts as required under section (44)(1)(c) of the Act and to state whether particular matters have come to my attention.

Basis of Independent Examiner’s Statement

My examination is carried out in accordance with Regulation 11 of the 2006 Regulations. An examination includes a review of the accounting records kept by the charity and a comparison of the accounts presented with those records. It also includes consideration of any unusual items or disclosures in the accounts and seeks explanations from the trustees concerning any such matters. The procedures undertaken do not provide all the evidence that would be required in an audit and, consequently, I do not express an audit opinion on the view given by the accounts.

Independent Examiner’s Statement

In connection with my examination, no matter has come to my attention:-

1. which gives me reasonable cause to believe that, in any material respect, the requirements:-

   • to keep accounting records in accordance with section 44(1)(a) of the 2005 Act and Regulation 4 of the 2006 Regulations, and

   • to prepare accounts which accord with the accounting records and comply with Regulation 8 of the 2006 Regulations have not been met, or

2. to which, in my opinion, attention should be drawn in order to enable a proper understanding of the accounts to be reached.

Julian Cordery FCCA ACA
Gibson McKerrell Brown LLP
14 Rutland Square Edinburgh EH1 2BD
12 December 2012
Statement of Financial Activities including Income and Expenditure Account for the year ended 30th September 2012

<table>
<thead>
<tr>
<th>Note</th>
<th>Voluntary income</th>
<th>Income from Charitable activities</th>
<th>Fundraising trading:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Restricted Funds - £</td>
<td>2012 total - £</td>
<td>2011 total - £</td>
</tr>
<tr>
<td><strong>Incoming Resources</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Voluntary income</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Members' Subscriptions</td>
<td>9,455</td>
<td>9,455</td>
<td>9,213</td>
</tr>
<tr>
<td>Gift Aid tax refund</td>
<td>1,271</td>
<td>1,771</td>
<td>1,606</td>
</tr>
<tr>
<td>Donations</td>
<td>500</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td><strong>Investment income</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Incoming Resources</strong></td>
<td><strong>£32,552</strong></td>
<td><strong>£3,295</strong></td>
<td><strong>£35,847</strong></td>
</tr>
</tbody>
</table>

**Resources Expended**

| Fund management charges | 480 | 480 | 475 |
| Fundraising trading: | | | |
| Cost of Sales | 3,077 | 3,077 | 4,037 |
| **Charitable activities:** | | | |
| Lectures | 2,306 | 2,306 | 2,668 |
| Special public lecture | | 1,034 | |
| Billet | 1,763 | 1,763 | 2,141 |
| Edinburgh Geologist | 2,352 | 2,352 | 2,283 |
| Excursions | 15,046 | 15,046 | 15,504 |
| Grants and Awards | 233 | 408 | 641 | 1,098 |
| Administration | 892 | 892 | 1,240 |
| Sponsored projects | 1,000 | 2,376 | 3,376 | 4,468 |
| **Total cost of Charitable activities** | **23,592** | **2,784** | **26,376** | **30,436** |
| **Governance costs** | 1,405 | 1,405 | 1,077 |
| **Total Resources Expended** | **£28,554** | **£2,784** | **£31,338** | **£36,025** |

**Net Incoming (Outgoing) Resources before other recognised gains / losses**

| 5 | 2,052 | 760 | 2,812 | -1,337 |
| **Net gains on investments** | **£6,050** | **£1,271** | **£7,321** | **£7,742** |

continues overleaf
Statement of Financial Activities - continued

Net Movement in Funds

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reconciliation of funds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total funds brought forward</td>
<td>£61,405</td>
<td>£27,419</td>
</tr>
<tr>
<td>Total funds carried forward</td>
<td><strong>£67,455</strong></td>
<td><strong>£28,690</strong></td>
</tr>
</tbody>
</table>

The above statement of financial activities includes all gains and losses in the year.
All incoming resources and resources expended derive from continuing activities.

Balance Sheet as at 30th September 2012

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investments</td>
<td>Notes</td>
<td>£</td>
</tr>
<tr>
<td>Stock of Publications</td>
<td>4</td>
<td>2,678</td>
</tr>
<tr>
<td>Bank</td>
<td>29,046</td>
<td>21,643</td>
</tr>
<tr>
<td>Creditors</td>
<td></td>
<td>33,011</td>
</tr>
<tr>
<td>Other Stocks</td>
<td>321</td>
<td>429</td>
</tr>
<tr>
<td>Debtors and prepayments</td>
<td>966</td>
<td>1,693</td>
</tr>
<tr>
<td>Creditors and provisions - amounts falling due within one year</td>
<td>6</td>
<td>6,695</td>
</tr>
<tr>
<td>Net Current Assets</td>
<td>26,316</td>
<td>22,312</td>
</tr>
<tr>
<td>Net Assets</td>
<td>£96,145</td>
<td>£88,824</td>
</tr>
</tbody>
</table>

Representing:

Unrestricted funds
General Fund

Restricted funds
Permanent endowment funds
Sponsored projects

Total funds

The notes on pages 15 to 18 form part of these accounts.

Approved by Council and signed on its behalf by

R Morley, Treasurer
12 December 2012
Notes forming part of the Financial Statements

1 Accounting Policies
The principal accounting policies are summarised below. The accounting policies have been carried through consistently throughout the year and in the preceding year.

(a) Basis of Accounting
The accounts have been prepared under the historical cost convention, as modified by the inclusion of investments at market value, and in accordance with the Charities and Trustees Investment (Scotland) Act 2005, the Charities Accounts (Scotland) Regulations (2006) and Statement of Recommended Practice: Accounting and Reporting by Charities (2005).

(b) Fund Accounting
- Unrestricted funds are available for use at the discretion of the trustees in furtherance of the general objectives of the charity.
- Restricted funds are subjected to restrictions on their expenditure imposed by the instructions or will of the donor.

(c) Incoming resources
- Subscriptions are credited in the period to which they relate. No provision is made for arrears.
- Sales of publications are credited in the period to which they relate.
- All other income is credited when received.
- The gross income from investments and bank interest received during the year has been apportioned to the various funds in the ratio of their opening balances, together with net gains (losses) on investments.

(d) Resources expended
Expenditure is recognised on an accrual basis as liability is incurred and includes VAT.
- Charitable expenditure comprises those costs incurred by the charity in the delivery of its activities to its beneficiaries.
- Governance costs comprise those costs associated with meeting the constitutional and statutory requirements of the charity and include the independent examiner’s fee (£540) and costs linked to the strategic management of the charity.
- All costs are allocated between the expenditure categories of the Statement of Financial Activities on a basis designed to reflect the use of the resource.
2. Geoconservation Groups
Lothian and Borders GeoConservation, Stirling and Clackmannan RIGS and Tayside Geodiversity are constituted as committees of the Society, but have their own office-bearers and bank accounts. Their financial results are included in these accounts.

3. Excursions
Particulars of the Society's excursions etc are as follows:-

<table>
<thead>
<tr>
<th></th>
<th>2011 / 12</th>
<th></th>
<th>2010 / 11</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>£</td>
<td>£</td>
<td>£</td>
</tr>
<tr>
<td>Day Excursions</td>
<td>1,235</td>
<td>877</td>
<td>1,604</td>
<td>893</td>
</tr>
<tr>
<td>Weekend Excursion</td>
<td>429</td>
<td>690</td>
<td>265</td>
<td>210</td>
</tr>
<tr>
<td>Long Excursion</td>
<td>13,196</td>
<td>13,219</td>
<td>13,537</td>
<td>13,906</td>
</tr>
<tr>
<td>Fellows' Night</td>
<td>186</td>
<td>197</td>
<td>98</td>
<td>98</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>£15,046</strong></td>
<td><strong>£14,983</strong></td>
<td><strong>£15,504</strong></td>
<td><strong>£15,107</strong></td>
</tr>
</tbody>
</table>

4. Publications
Sales and the cost of sales comprise:

<table>
<thead>
<tr>
<th></th>
<th>2011/12</th>
<th></th>
<th>2010/11</th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>£</td>
<td>£</td>
<td></td>
<td>£</td>
</tr>
<tr>
<td><strong>Sales</strong></td>
<td>£4,832</td>
<td></td>
<td>£7,197</td>
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<tr>
<td>Cost of Sales</td>
<td>2,645</td>
<td></td>
<td>4,037</td>
<td></td>
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<tr>
<td>Depreciation</td>
<td>432</td>
<td></td>
<td></td>
<td>-</td>
</tr>
<tr>
<td><strong>Total cost of Sales</strong></td>
<td>£3,077</td>
<td></td>
<td>£4,037</td>
<td></td>
</tr>
</tbody>
</table>

Stocks of publications have been valued at the lower of cost and net realisable value after making due allowance for obsolete and slow-moving items. Older stocks have now been fully depreciated and the more recent Rum, Moine and NWH Guides are being written off at the greater of 20% pa or pro rata to Sales.

5. Investments
Analysis of Movements of Investments

<table>
<thead>
<tr>
<th></th>
<th>£</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrying value (market value) at beginning of year</td>
<td>66,512</td>
</tr>
<tr>
<td>Add: Additions to Investments at cost</td>
<td>13,560</td>
</tr>
<tr>
<td>Less: Disposals at carrying value</td>
<td>-13,089</td>
</tr>
<tr>
<td>Add: Net gain on revaluation</td>
<td>2,846</td>
</tr>
<tr>
<td>Carrying value (market value) at end of year</td>
<td><strong>£69,829</strong></td>
</tr>
</tbody>
</table>

Note - Net loss realised during the year
- Gain on revaluation 2,846
Net gain on Investments £2,812

<table>
<thead>
<tr>
<th>Description</th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provision for production of RIGS leaflets</td>
<td>£</td>
<td>£285</td>
</tr>
<tr>
<td>Loan by Chairman of S&amp;C RIGS Group</td>
<td>2,180</td>
<td>2,180</td>
</tr>
<tr>
<td>National Museum of Scotland</td>
<td>1,717</td>
<td>-</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>2,798</td>
<td>2,747</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>£6,695</strong></td>
<td><strong>£5,212</strong></td>
</tr>
</tbody>
</table>

7. Trustee Remuneration and Related Party Transactions

No members of Council received any remuneration during the year. Costs incurred in entertaining lecturers after the public lectures (£450) were refunded to 4 members of Council, and other costs totalling £1,056 incurred on behalf of the Society were refunded to 7 members of Council.

No trustee or other person related to the charity had any personal interest in any contract or transaction entered into by the charity during the year.

8. Restricted Funds

Endowment Funds
The purpose of the Clough Memorial Fund is to provide a medal annually to a geologist whose original work has materially increased the knowledge of the geology of Scotland and the North of England, and to award grants for fieldwork. Three grants were made from the Clough Fund during the year.

The Mykura Fund is to support field work in Scotland. One grant was made during the year.

Sponsored Projects
The Society sponsors a number of special projects and invites donations specifically to fund them. Current projects are the provision of kits of rock specimens for use as teaching aids in schools, and the production and publication of leaflets describing the geology of locations of geological interest in and around Edinburgh.

Accounting
The gross income from investments and bank interest received during the year, together with net gains (losses) on disposal or revaluation of investments, has been apportioned to the various Endowment funds in the ratio of their opening balances.

The assets of the Society have been apportioned to the various Endowment funds in the ratio of their closing balances.

The Sponsored Projects funds carried forward are held in cash.
### Restricted Funds - continued

<table>
<thead>
<tr>
<th></th>
<th>Unrestricted Funds</th>
<th>Endowment Funds</th>
<th>Sponsored Projects</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>£</td>
<td>£</td>
<td>£</td>
<td>£</td>
</tr>
<tr>
<td>Investment income</td>
<td>2,011</td>
<td>568</td>
<td>177</td>
<td>2,756</td>
</tr>
<tr>
<td>Gift Aid</td>
<td>1,271</td>
<td></td>
<td>500</td>
<td>1,771</td>
</tr>
<tr>
<td>Sponsored Projects</td>
<td></td>
<td>2,050</td>
<td></td>
<td>2,050</td>
</tr>
<tr>
<td>Other incoming resources</td>
<td>29,270</td>
<td></td>
<td></td>
<td>29,270</td>
</tr>
<tr>
<td><strong>Total incoming resources</strong></td>
<td><strong>£32,552</strong></td>
<td><strong>£568</strong></td>
<td><strong>£177</strong></td>
<td><strong>£2,550</strong></td>
</tr>
<tr>
<td>Grants and Awards</td>
<td>233</td>
<td>408</td>
<td></td>
<td>641</td>
</tr>
<tr>
<td>Sponsored Projects</td>
<td>1,000</td>
<td></td>
<td>2,376</td>
<td>3,376</td>
</tr>
<tr>
<td>Other outgoing resources</td>
<td>27,321</td>
<td></td>
<td></td>
<td>27,321</td>
</tr>
<tr>
<td><strong>Total outgoing resources</strong></td>
<td><strong>£28,554</strong></td>
<td><strong>£408</strong></td>
<td><strong>£0</strong></td>
<td><strong>£2,376</strong></td>
</tr>
<tr>
<td>Gain on investments</td>
<td>2,052</td>
<td>579</td>
<td>181</td>
<td>2,812</td>
</tr>
<tr>
<td><strong>Net movement in Funds</strong></td>
<td><strong>£6,050</strong></td>
<td><strong>£739</strong></td>
<td><strong>£358</strong></td>
<td><strong>£174</strong></td>
</tr>
<tr>
<td>Funds brought forward</td>
<td>£61,405</td>
<td>£17,328</td>
<td>£5,404</td>
<td>£4,687</td>
</tr>
<tr>
<td><strong>Funds carried forward</strong></td>
<td><strong>£67,455</strong></td>
<td><strong>£18,067</strong></td>
<td><strong>£5,762</strong></td>
<td><strong>£4,861</strong></td>
</tr>
</tbody>
</table>

**represented by:**

<table>
<thead>
<tr>
<th></th>
<th>£</th>
<th>£</th>
<th>£</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Investments</td>
<td>51,600</td>
<td>13,821</td>
<td>4,408</td>
<td>69,829</td>
</tr>
<tr>
<td>Current assets</td>
<td>22,550</td>
<td>4,246</td>
<td>1,354</td>
<td>33,011</td>
</tr>
<tr>
<td>less - Current liabilities</td>
<td>-6,695</td>
<td></td>
<td></td>
<td>-6,695</td>
</tr>
<tr>
<td><strong>Net assets</strong></td>
<td><strong>£67,455</strong></td>
<td><strong>£18,067</strong></td>
<td><strong>£5,762</strong></td>
<td><strong>£4,861</strong></td>
</tr>
</tbody>
</table>
Obituaries - compiled by Ian Jackson.

During the year we recorded with the greatest regret the deaths of Life Fellows, Mr Innes Lumsden, Dr Roy MacGregor and Dr Isles Strachan, of Ordinary Fellows, Dr Gordon Biggar, Dr Arthur Cruickshank and Mr Ronald MacLean, and of Senior Fellows, Miss Dorothy Forrester, Dr Donald Smith, Mr Robert Sutherland and Mr Stan Wood.

Gordon McLaren Biggar, one of the UK’s foremost experimental petrologists, obtained his PhD in 1962 from the University of Leeds under Peter Wyllie for phase equilibrium studies of apatites. He was subsequently recruited by Prof (later Sir) Fred Stewart to the Grant Institute of Geology in October 1965 (joining the Society in the 1965-6 session), to carry out high pressure and high temperature mineral studies in a newly established laboratory. For the next 30 years at the Grant, Gordon conducted pure research on a diverse and sometimes eclectic range of topics. In the early 1970s, he worked closely with Mike O’Hara experimenting on lunar basalt samples specially provided by NASA; in the late 1970s with a succession of research students, the focus changed to investigations into various pyroxene minerals, and later to parental magmas of the Bushveld Complex (layered intrusion) and Karoo tholeiites. As befitted a prolific author of over 55 scientific papers, Gordon was also a meticulous editor of the Scottish Journal of Geology from 1983 to 1989. He retired as a Lecturer from the Grant Institute on 30th September 1995 and died at Fushiebridge on 3rd October 2011; my thanks to Godfrey Fitton for his help.

Arthur Richard Ivor Cruickshank was born in Kenya (on 29th March 1932) but schooled in Scotland, and after graduating in 1957 with Zoology Honours from Edinburgh University, he subsequently completed a doctorate at the University of Cambridge on the Triassic plant-eating dicynodont reptile, *Tetragonias*. Returning to Edinburgh, he taught zoology at both the University and Napier Technical College, before moving in 1967 to the University of the Witwatersrand, Johannesburg, as Assistant Director of the palaeontological institute; he continued his dicynodont studies but later turned to the evolution of early archosaurs and dinosaur origins. In 1978, influenced by the unstable politics in South Africa, Arthur once more returned to Edinburgh, joining the Society in the 1979-80 session, and *inter alia* undertook tutoring for the Open University. In 1985, the family moved to Hinckley, Leicestershire, and Arthur obtained honorary research posts at both Leicester Museum and the University of Leicester, investigating Jurassic plesiosaurs. In 2006, the family moved to the Borders where Arthur died, aged 79, on 4th December 2011. Longer obituaries are hosted at repository.nms.ac.uk (search on “Cruickshank”); thanks to Mike Taylor.

Dorothy Laidlaw Forrester, of Dean Village in Edinburgh, joined the Society in the 1980-81 session and regularly attended both the winter lectures and summer excursions; she was a long-standing member of the East of
Scotland Branch of the OUGS, to whom she latterly donated her geological books and maps. She died, aged 90, on 31st May 2012. A past winner of the annual Christmas Social quizzes of the 1990s, Dorothy’s keen brain and sharp mind had, much earlier, been harnessed in the national interest in WWII when, as a staff sergeant in the Auxiliary Territorial Service, she worked at Bletchley Park in the SIXTA Group (No 6 Intelligence School and Traffic Analysis) of Block G as a log reader and traffic analyst (see bletchleypark.org.uk/content/hist/history/RollofHonour.rhtm; thanks to David McMahon and Caroline Paterson for the link).

**George Innes Lumsden**, the last internally appointed Director of the British Geological Survey, died in Oxford, aged 86 on 4th September 2012. His management rise was rapid: he became District Geologist of the South Lowlands Unit in 1970, Assistant Director for the Land Survey of Scotland and Northern Ireland in 1980, was Deputy Director from 1982 to 1985 and finally Director from 1985 to August 1987, before tending an early resignation. Innes was born in Peterculter on 27th June 1926, graduating from the University of Aberdeen with a BSc in physics in 1947 and Honours Geology in 1949, and joining the Geological Survey of Great Britain in Edinburgh later that year. His early years revolved around coalfield work in the Douglas, Canonbie and Ayrshire coalfields. In 1951, he started the resurvey of the Langholm sheet and was senior author of the resulting memoir; one notable outcome was his planning and logging of the Archerbeck Borehole in 1957-8, at that time the deepest cored borehole in Britain. Later, in middle management, he became immersed in committee work.

In his post-Survey career until 1999, he chaired scientific recruitment boards firstly for the Civil Service Commission and later the Ministry of Defence. From c.1985 until 2002, as a participant Director of WEGS (Western European Geological Surveys) and latterly as the Honorary Chairman, Innes actively fostered Europe-wide and inter-Survey co-operation, an achievement of which was his compilation and editorship of the 1992 volume *Geology and the Environment in Western Europe*. He joined the Society in the 1950-51 session, serving two stints as an Ordinary Member of Council in 1953-56 and 1964-67 and leading three Society excursions. Additional details in *The Scotsman* obituary, 14/9/2012.

**Alexander Roy MacGregor**, President of the Society from 1977 to 1979, died at St Andrews on 15th August 2012. Spanning 30 years from 1968, he led a grand total of 21 Society excursions, including Long Excursions to Islay and to Mull. He joined the Society in the 1964-65 session, served as an Ordinary member of Council from 1973-76, and was an editor of the *Scottish Journal of Geology* from 1974-79. Roy was a co-author of the Society booklet, *Assynt The Geologists’ Mecca*, having earlier been alerted
to the geological significance of the Inchnadamph Hotel visitors’ book by Isles Strachan.

His first degree, from Glasgow University in 1953, had been interrupted by National Service, and was followed by a Master’s at McGill University in Canada in 1954 and a PhD at Cambridge awarded in 1957. Roy was appointed as Lecturer in Geology at the University of St Andrews in 1956, where his primary teaching was stratigraphy and palaeontology; in the early days of North Sea exploration, he added hydrocarbon geology and its economics to the syllabus. He was a Senior Lecturer for 22 years from 1969, and then Associate until 1995, when he finally retired. The pages of the three editions (1968, 1973, 1996) of his popular Fife and Angus excursion guide, each with a different publisher, were graced with his pen and ink sketches; his painting hobby was pursued vigorously during retirement. My thanks to Richard Batchelor for career details.

Although born in Southsea on 23rd August 1925, Ronald George MacLean attended schools in Scotland before going up to Trinity College, Oxford, where his undergraduate days from 1943-49 were twice interrupted by service with the Fleet Air Arm. He graduated in Geology in 1949 and immediately joined the Anglo-Iranian Oil Company (BP from 1954 onwards) exploring in Persia, southern Europe, Africa and Trinidad. One non-oil discovery he made was the crash site of a WWII American bomber Lady be Good in the Libyan desert; the crew had survived at least 8 days and their harrowing story has been the subject of a film, and also published in books and on websites. Ronnie left BP in 1967 to direct geological UN projects in Poland and Chile, and in the late 1970s established his own London-based geological consultancy. After retiring and moving back to Scotland, he joined the Society in the 1985-86 session. Away from geology, he actively researched the history of the clan MacLean and was Treasurer of their Association in the 2000s. He died in Edinburgh aged 86 on 5th April 2012 (see geolsoc.org.uk/page11897.html, for a longer obituary).

Donald Ian Smith had a lifelong career as a field geologist with the British Geological Survey in Scotland. Immediately after completing his PhD thesis at the University of Edinburgh on Centre 3 of the Ardnamurchan Central Complex, he was appointed to the then Scottish Highlands District of the Survey in Edinburgh in 1957. In his early career Donald was engaged on the primary survey of the Moine succession across the undivided Loch Eil (1958-63) and Cluanie (1963-69) sheets. In 1970 alongside Doug Fettes, he started the regional structural survey of the Outer Hebrides, integrating the results of earlier PhD theses - mostly from Imperial College students - with a rapid primary survey of the intervening terrain; he was a co-author of the subsequent memoir. From 1976 to 1982, he supervised the contract mapping with the University of Liverpool of the Great Glen Fault. Donald was author and co-author of several influential papers on the structure and
stratigraphy (especially Moinian) of the West Highland. His extensive regional knowledge was utilised in advisory work over many years, particularly in pumped storage schemes for the North of Scotland Hydro-Electric Board, and the A9 upgrade for the Scottish Development Department. Donald joined the Society in the 1957-58 session, serving as an Ordinary Member of Council from 1961-61 and also leading two Society field excursions; after retirement from the Survey in the early 1990s, he later moved to Blairgowrie and died at Perth on 27th May 2012.

Isles Strachan, the internationally renowned graptolite expert died at Dundee aged 87 on January 18th 2012. He joined the Society in the 1950-51 session, and much later was the catalyst for the publication of the Society booklet *Assynt The geologists’ Mecca*. Isles was born in Loanhead on 12th March 1924, graduated from the University of Edinburgh in geology in 1946, followed in 1951 by a PhD from the University of Cambridge. Later that year he was appointed as Lecturer to the University of Birmingham, where he spent the remainder of his academic career (33 years) specialising in graptolites - their morphology, taxonomy and use in stratigraphy; the university later awarded him a DSc. In 1984, when he retired from Birmingham as a Senior Lecturer, he moved to the haven of St Andrews to pursue his graptolite research, and was immediately granted an honorary lectureship at the university. In addition to numerous papers on palaeontology and stratigraphy (where graptolite dating was crucial), Isles was sole author of two outstanding and oft-consulted Palaeontographical Society monographs on graptolites - the second published in 1996 in his retirement. A talented linguist (Russian, Chinese and Latin) and mathematician in his spare time, he also took a keen interest in the history of science (see also geolsoc.org.uk/page12159.html).

Robert Sutherland, of Buchlyvie Lodge, Buchlyvie, Stirlingshire, who was both a Writer to the Signet and a Notary Public, died aged 85, on 15th June 2012. He was a long-standing member of the Society, joining in the 1956-57 session and serving as an Ordinary Member of Council between 1957 and 1960. Born in 1926, he obtained degrees in Economic Science in 1951 and an LL.B in 1953 both from the University of Edinburgh. From 1955-1973 he was a principal partner in the law firm Stuart and Stuart W.S. in Edinburgh; he then left to become Senior Lecturer in Private Law at Glasgow University, finally retiring in 1990. Robert Sutherland was an Honorary Sheriff of Tayside, Central and Fife, a member of the Society of Antiquaries of Scotland, and in his spare time a student of Scandinavian language and literature (see also www.archives.lib.ed.ac.uk/polopoly/amspu.php?cat=Coll-1102).

Both outside and within geology, the commercial fossil hunter and freelance palaeontologist, Stanley Purdie Wood, fashioned a remarkably varied and productive life that culminated in arguably his greatest find in 2009. Born in
Edinburgh on 23rd December 1939, Stan left school in his mid-teens, completed a shipyard apprenticeship at Leith, served in the Merchant Navy as an engineer officer and worked for the engineering company, Brown Brothers. He then switched to selling insurance policies for the Prudential, but in 1968 began to take an interest in fossils. His first discoveries, reported in 1975, were notable new finds of elasmobranch sharks and actinopterygian fishes from the Wardie Oil Shales (Asbian).

Over the next 35 years, Stan made a series of remarkable and increasingly momentous tetrapod, fish and arthropod discoveries from Carboniferous rocks in the Midland Valley. In the late 1970’s, he recovered sparse and poorly preserved amphibians (including new species) from Viséan, Namurian and Westphalian strata including an opencast site at Cowdenbeath. The Cowdenbeath tetrapods formed the source material for student PhD’s at Newcastle University and Stan was employed there from 1976-79 as a Research Technician; during which time he obtained a science degree with the Open University. In 1980, he part-financed a multi-organizational re-excavation of the Foulden Fish Bed (early Courceyan) in Berwickshire which produced a diverse fish assemblage with several new species. In 1981, he directed a similar dig at Bearsden in the Manse Burn Formation (Pendleian), and found complete and exquisitely preserved sharks (including most spectacularly, Akmonistion zangerli, the “Bearsden shark”) and crustacea (e.g. Tealliocaris robusta).

In 1983, he set up a commercial business selling fossils from his Livingston workshop, and then in 1987 opened his Edinburgh shop, Mr Wood’s Fossils. In 1984, while refereeing a football match at Bathgate, he was struck by the curious limestone lithology in the stone wall surrounding the ground. On a hunch he purchased an adjacent stone wall for £25 from a farmer (!); a block therefrom, of the East Kirkton Limestone (Brigantian) yielded the temnospondyl amphibian, Balanerpeton woodi. Later that year, he leased and re-excavated the quarry at East Kirkton from which he unearthed the major scoop of ‘Lizzie’, Westlothiana lizziae, initially thought to be the world’s earliest reptile but later re-interpreted as an early amniote; the quarry also yielded permineralised plants and a unique arthropod fauna including large eurypterids, and a harvestman spider.

Stan moved to Selkirk in 2006, and in 2009 scored probably his greatest triumph in the Whiteadder River near Chirnside, discovering only the second tetrapod horizon locality in the world from “Romer’s Gap” (the fish-tetrapod transition); the richly fossiliferous Ballagan Formation horizon (Courceyan) is contemporaneous with Foulden and the tetrapods are as yet unnamed. Stan joined the Society in the 1982-83 session, and his Livingston workshops were visited on an evening excursion in 1984; he died at Selkirk on 9th September 2012, aged 72. For further information, the most comprehensive obituary is probably The Times, 15/9/2012.