

British Society for Geomorphology

Outreach and Education Strategy 2019-2021

The purpose of the Outreach and Education Sub-Committee (OESC) is to support the Society to achieve its overarching strategy through promoting the Society and the science of geomorphology to the public and at all levels of education.

The BSG's Statement of Strategy 2018-2022 is –

The BSG, as the professional British organisation for geomorphologists, will advance the science of geomorphology, and provide a community and services for those involved in teaching, research or practice in geomorphology. It will continue to foster excellence and seek increased support for geomorphology through five main strands:

1. The promotion of geomorphological research through supporting the community by sponsoring co-operative and pump-priming research projects and the publication of the results of such research, training of early-career researchers and postgraduates, and supporting and organizing focused meetings and workshops. The BSG also aims to maintain and strengthen research partnerships, specifically through links with the Geological Society and the Royal Geographical Society (RGS-IBG), and enhance our co-operation on an international stage, with European and other international organizations, and with the IAG.
2. The promotion of educational activities and the wider public understanding of the science of geomorphology and its contribution to society, its presence in schools, by the preparation and dissemination of training and teaching materials, and the organization of conferences and courses and of related outreach activities.
3. The promotion of professional geomorphology by supporting the accreditation of geomorphologists via the CGeog (Geomorph) and other routes, the organization of workshops and conferences for practising geomorphologists, and the development of geomorphological guidance in relation to practice and policy.
4. The strengthening of the Society's Financial base so that it can better carry out 1-3, and ensure resilience of the Society in the coming decades.
5. The provision of communications in appropriate formats, for both members and the wider public, in relation to 1-3 and to further ensure 4.

The BSG strategy in regards to education is –

Schools

- Increase awareness of Geomorphology amongst school teachers, and provide teaching materials that may be used in class
- Increase teacher membership of the BSG
- Seek to develop and inspire a new generation of geomorphologists

University Undergraduates

- Promote the study of geomorphology as part of undergraduate degree courses
- Hold an annual competition for the best British undergraduate dissertation, through the Marjorie Sweeting Prize

University Postgraduates

- Provide training in the form of an annual workshop for postgraduates
- Provide funding for conference support and postgraduate fieldwork
- Promote participation by postgraduates in the AGM

Public

- Through use of the media, improve the public understanding of geomorphology and its relevance to society
- Support the participation of BSG members in public engagement events such as Cheltenham Science Festival to communicate our research more widely

Challenges for Communicating Geomorphology

The Communicating Geomorphology Working Group (2015-2017) was established in response to concern amongst the geomorphology community about the consequences of a downturn in the visibility of the discipline. Of particular note is the decline in the use of the term in academic literature, and the eschewing of the term in educational material even when that material is covering major geomorphic principals.

This particular issue highlighted is the lack of distinctiveness of geomorphology as a discipline, with many researchers also identifying as belonging to another discipline. The most popular was geology, but also included terms such as geoscience, geography, quaternary, sedimentology, glaciology and hydrology. This presents an issue communicating geomorphology widely too, as many events of interest to the public and media would also come under these wider descriptions – e.g., erosion as a result of a flood is geomorphology but also hydrology, with the latter term have a wider public understanding.

This lack of distinctiveness was also observed within the UK REF Impact Case Studies for 2014. Out of 85 submitted in Geography, Environmental Studies and Archaeology, 40 covered topics relating to geomorphology but the term was used in just 17. Many journals do not list geomorphology in their descriptions and opt for alternatives (eg, earth system processes). The American Geoscience Union does not have a Geomorphology section at all.

Ultimately, the Working Group concluded that science that could be described as geomorphology was prominent and impactful, yet the term geomorphology itself was not, and the responsibility of raising its profile lay with the community. The BSG and the OESC should be leading this.

The second major issue facing our discipline is the pathway through education. In recent years there has been a decline in the amount of geomorphology taught within schools as less schools are opting to teach Physical Geography. In 2018 the number of students opting for A-Level Geography dropped by 11 %. This can be attributed to schools wishing to avoid teaching field work, an essential skill of Physical Geography and geomorphology topics, because of the cost and complexity in delivering such teaching. This will lead to a reduction in the number of students opting to study Physical Geography at A-Level and consequently at Undergraduate level.

This latter point is more difficult to address as it is an issue borne out of the squeeze of resources available to schools, and not an issue of the understanding of the discipline and its importance to global issues and society.

Opportunities for Communicating Geomorphology

Whilst there are challenges, there are clearly opportunities. The Communicating Geomorphology Working Group conclude that science which could be described as geomorphology was prominent, for example 47 % of REF Impact Case Studies in 2014 in the relevant Unit 17 concerned examples of geomorphology. Geomorphology can be found at the heart of many of the most pressing global environmental issues, be it flooding, plastics, food security, or glacial retreat.

This is also being recognised by Industry, with the numbers of engineers employed specifically as Geomorphologists increasing. The growth and interest has been such that the Society formed the Professional Geomorphology and Practise Sub-Committee to represent the needs of members from Industry. The increase in employment opportunities for geomorphologists is out of step with the reduction in the number A-Level students opting for related subjects.

What can we do?

The BSG is a small and somewhat niche group. As identified previously, many of our members also have interests within other learned societies. The OESC is a small Sub-Committee, with just a Chair, Secretary and Postgraduate Representative as full-time members, and has a small annual budget of £8.5k which is likely to be reduced in the future. This limits what can be achieved and OESC must be selective and strategic in its approach going forward.

Previously OESC has acted to lead exhibits at Festival, such as Cheltenham Science Festival and the NERC showcase UnEarthed. Such activity requires immense resources from the budget (often the significant proportion of the annual budget for a single event) and from the Committee. OESC has also sought to produce teaching and curriculum materials for schools from within itself, and again this is a large investment of time from members of OESC who are also probably not best placed to produce pedagogical materials for schools.

The focus will be instead be on encouraging and equipping members to produce their own exhibits and produce their own resources (to be shared). This will be achieved through a more focussed use of the current Outreach grant, and establishing new ways to reward members performing such activities.

The one thing we can do as OESC and as a wider Society (and community) is shout about geomorphology with greater enthusiasm and gusto. The role geomorphology has on some of the most pressing global issues should be particularly promoted with greater vigour.

Suggested Actions

- Create a School Education Officer position within OESC to support/lead the work with schools
- Develop a Communicating Geomorphology Chapter within the Geomorphological Techniques publication
- Start an Geomorphology Education Resources publication using the Geomorphological Techniques model
- Geomorphology of the Anthropocene Special issue is ESPL to highlight geomorphology's role on pressing global issues
- Work with Media Officer to push "Geomorphology: The Science of the Anthropocene" campaign alongside ESPL special issue
- Establish a pool of volunteers willing to help at geomorphology-related events

Terms of reference for the BSG Outreach and Education Committee

Key role

The BSG Outreach and Education Committee shall promote and develop aspects of Society business that link it to the wider world, including the promotion of the understanding of geomorphology amongst the general public, but with a particular focus on secondary and tertiary level education.

Reporting

The BSG Outreach and Education Committee will report to the Executive Committee. Reports will also be sent to the Publications Committee, the Committee for Professional Geomorphology and Practice and the Research Committee when appropriate.

Terms of reference

The Committee shall:

- act as the link to external professional bodies such as the Royal Geographical Society (with the Institute of British Geographers), the Geographical Association and The Geological Society of London;
- support education in geomorphology, working, where appropriate, with partner agencies and organisations; supporting geomorphology in secondary and higher education;
- support and encourage the development, promotion and dissemination of educational resources and workshops through the *Geomorphology Educational Resources* publication and contributions to *Geomorphological Techniques*
- administer such funds for Outreach and Education activities as may be allocated by the Executive Committee
- decide on the recipient of the Marjorie Sweeting Award for the best undergraduate dissertation in geomorphology;
- forward regular reports to the Executive Committee and Annual General Meeting;
- consider matters that, from time to time, may be referred by the Executive Committee.

Key Annual Dates

January – Deadline for Outreach Grants

March – Committee Meeting; Assess Outreach Grants

May – Executive Committee Meeting

July – Advertise Outreach Grants; Advertise Marjorie Sweeting Award

September – Annual Meeting; Deadline for Outreach Grants; Deadline for Marjorie Sweeting Award

October – Committee Meeting; Assess Outreach Grants; Assess Marjorie Sweeting Award

November – Advertise Outreach Grants;

Membership

Title	Role	Tasks
Vice-Chair	Acting as Chair of the Outreach and Education Committee and also being a member of the Society Executive Committee (elected by members at the AGM).	<p>A trustee of the BSG as a member of the Executive Committee, as the Society is a registered charity</p> <p>Attend Executive Committee meeting (3 per year)</p> <p>Evaluate and decide on submissions to the Outreach and Education grant</p> <p>Evaluate and decide on submissions to the Majorie Sweeting prize</p> <p>Oversee proposals and submissions to <i>Geomorphological Techniques</i> relevant to public engagement, liaising with Secretary of the Communications and Publications Committee</p> <p>Oversee proposals to <i>Geomorphology Educational Resources</i>, liaising with the Secretary of the Communications and Publications Committee</p> <p>Oversee the development and implementation of a Schools' strategy to promote Geomorphology as part of Primary, Secondary, and A-level education</p> <p>Oversee ad hoc opportunities for outreach as they arise, liaising with appropriate members of the Society</p> <p>Liaise with Report and Media Officer in promotion of Outreach and Education activity</p>
Ordinary Member	Acting as Secretary of the Outreach and Education Committee and also being a member of the Society Executive Committee (elected by members at the AGM).	<p>A trustee of the BSG as a member of the Executive Committee, as the Society is a registered charity</p> <p>Attend Executive Committee meeting (3 per year) if Chair is unable to</p> <p>Organise, attend, and take minutes for the Outreach and Education Sub-Committee meetings (2 per year)</p> <p>Evaluate on submissions to the Outreach and Education grant, and feedback to applicants</p>

		Evaluate on submissions to the Marjorie Sweeting prize, and feedback to applicants
Committee Member	Acting as School Education Officer (co-opted by the Society Executive Committee upon the recommendation of the Outreach and Education Committee Chair).	Attend the Outreach and Education Sub-Committee meetings (2 per year) Develop and implement a Schools' strategy to promote Geomorphology as part of Primary, Secondary, and A-level education Promote Society membership with Teachers Provide updates to the Outreach and Education Sub-Committee on relevant uptake of subjects at GCSE and A-level, and on relevant changes to curricula Editor of <i>Geomorphology Educational Resources</i> publication Liaise with the Committee Members for the Royal Geographical Society and the Geographical Association, plus members of other Committees such as the Report and Media Officer and Members Officer, to achieve above tasks
Committee Member	Acting as Windsor Workshop Coordinator responsible for the overall running of the annual postgraduate Windsor Workshop (elected by members at the AGM).	Invited to attend the Outreach and Education Sub-Committee meetings (2 per year) Organise the annual Windsor Workshop Provide a report on the Windsor Workshop to the Outreach and Education Sub-Committee
Committee member from the Royal Geographical Society	Responsible for developing links to schools and colleges, and for hosting educational resources on the Royal Geographical Society website (co-opted by the Society Executive Committee upon the recommendation of the Outreach and Education Committee Chair).	Invited to attend meetings of the Outreach and Educational Sub-Committee (2 per year) Represent interests of the Royal Geographical Society Provide comment on proposals and submissions to <i>Geomorphology Educational Resources</i>
Committee member from the Geographical Association	Responsible for developing links to teachers and for hosting educational resources on the Geographical Association website (co-opted by the	Invited to attend meetings of the Outreach and Educational Sub-Committee (2 per year) Represent interests of the Geographical Association

	Society Executive Committee upon the recommendation of the Outreach Committee Chair).	Provide comment on proposals and submissions to <i>Geomorphology Educational Resources</i>
Postgraduate member	(elected by the postgraduate members of the Society).	Attend the Outreach and Education Sub-Committee meetings (2 per year) Report on Postgraduate activity relevant to outreach and education Represent the interests of Postgraduate members
Ex officio member	Honorary Secretary	
Ex Officio member	Honorary Treasurer	

