BSG British Society for Geomorphology

DECEMBER 2025

NEWSLETTER

An ephemeral canyon, Tenerife, Spain - Edwin Baynes

Edited by: Erin Harvey and Jayesh Mukherjee


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“Geomorphology - take a moment to behold” - Elizabeth Orr

Message from the BSG President

Let me start with a big 'thank you' to everyone in Leeds who organised and managed our excellent Annual Meeting in September. The scientific sessions, ancillary events, and celebrations to mark ESPL's 50th anniversary were very busy and of excellent quality. The whole week felt lively and exciting, with wonderful engagement and effort from a diverse group of active academic and professional geomorphologists, including at the inaugural 'Meet the Fellows' event, which will now become an annual fixture. Meetings of this quality are the key to keeping our Society thriving. Lifetime Awards were made to the core ESPL team, Prof. Mike Kirkby, Fiona Kirkby and Prof. Stuart Lane, and two new Fellows were announced, Professors Paul Carling and Malcolm Newson. Fellows are members of the Society who have made significant contributions to the advancement of geomorphology through, for example, research publications, professional practice, or influential pedagogy. With that in mind, I would welcome suggestions for new Fellows at any time, noting that there is an upcoming deadline for receiving nominations of 31 December 2025 (instructions on the website: **BSG Fellows - British Society of Geomorphology**). Please consider nominating someone who you feel is deserving, noting that your nominations are the primary means of driving greater diversity in the Fellowship.

Against that very positive end to the Summer, the Autumn has been tinged with deep sadness at the death of BSG Fellow, Prof. Joanna Bullard, after a sudden and short illness. Please find a full obituary for Jo later in this Newsletter. The obituary highlights many of her contributions and accolades, and the fact that much of Jo's time was spent in service and support of others. Messages of kindness and love therefore came from across the world when people learned of her illness. She was able to read or hear many of them and know what she meant to many friends and colleagues. Jo fitted a lot in, with a surprising menagerie of hobbies and pastimes that complemented her academic excellence; she made stained glass artwork for each of my kids when they were born, and entertained Loughborough colleagues with her felt making, sailing and other stories. She was a wonderful colleague and human being, whose contributions to aeolian geomorphology, to the Society and ESPL, to Geography more widely, and to many individuals, will be sorely missed and deeply mourned.

Professor Stephen Rice
BSG President
Manchester Metropolitan University

Credit: Anindya Majhi
Chhattisgarh, India

Message from the Executive Committee

It's a privilege to be writing this message as the new Chair of the BSG. Firstly, I think it only fair to extend my huge thanks to Annie Ockelford (outgoing chair) for leaving the society in such good shape. Secondly, its important to recognise the time and effort of all the volunteers who sit on the Executive Committee and across the Society's sub-committees. Without them, the Society would not continue to function. Thank you.

Reflecting on our annual meeting in Leeds, it was fantastic to see such enthusiasm and engagement across our discipline. The range of talks and posters on offer was a true testament to the power of geomorphology and its vital role in the modern world as we continue to face a range of global crises. The meeting that was put on by Jonathan Carrivick and the team at Leeds was superb, so a huge thank you to you all for you hard work. I am sure that next year's meeting in Lincoln will follow suit.

As we turn our attention to the future, the Exec Committee will look to strengthen and grow our position as an internationally recognised Society dedicated to advancing the science of geomorphology. Over the past few weeks, I have held discussion with the International Association of Geomorphologists, the European Geosciences Union and the Geological Society of America to explore ways in which we can jointly develop, promote and offer short courses, meetings and events. On top of this we continue to engage with UK organisations, with joint events being planned with the RGS and continued engagement with the GA and GSL. Across all these discussions, I have been struck at just how well respected the BSG is, a testament to the strength and importance of the research and geomorphological practice all our members are doing.

This excellence is something we should celebrate, and as it is that time of year that we ask for nominations for our annual awards, I urge you to consider nominating colleagues whom you would like to see recognised for the contribution to geomorphology. This year will also see the inaugural Lynne Frostick Outreach Award, for outstanding contribution in geomorphology outreach, education and engagement over a sustained period. If you know someone who deserves recognition for their outreach, please nominate them.

Finally, we were all truly saddened to hear about the loss of Prof. Jo Bullard. Jo was always a friendly, smiley face at BSG events. She was a valuable source of advice to many, especially those starting out in their career, and a true epitome of the values we as a community uphold. As a Fellow and former Chair of the Society, she will be remembered with fondness and love. Our thoughts are with her family, friends and colleagues.

Dr Chris Hackney
BSG Chair
Newcastle University

Annual Conference 2025: Leeds

In September, the University of Leeds was delighted to welcome over 130 delegates in person and 5 online for the Annual Conference of the British Society for Geomorphology. The conference was held in central Leeds at Cloth Hall Court for convenience to those travelling and for the facilities within. Many people commented favourably about the food! The main conference proceedings began with workshops organised and facilitated by the BSG Postgraduate Forum and the BSG Committee for Professional Geomorphologists, before two and a half days of scientific sessions.

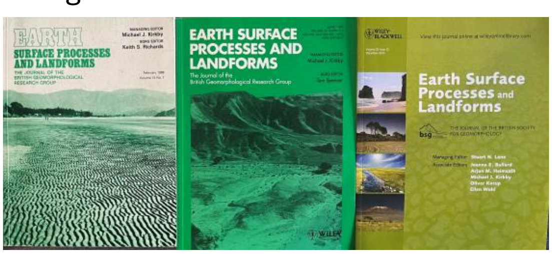
The seven oral sessions and 40 posters really showcased the incredible breadth and diversity of geomorphology, in terms of physical environments, research approaches, interdisciplinary links, and novel applications of emerging technologies and methods. Throughout the oral sessions we also had the opportunity to celebrate the 2025 BSG Medal and Award winners.

The conference featured the third Cuchlaine King Symposium, on the topic of '50 years of change in geomorphic systems' with invited speakers highlighting the real-time pace of changes occurring in glaciated landscapes, and controls on the persistence and preservation of glacial activity in landscapes.

The Special Issue in Earth Surface Processes and Landforms associated with the Symposium **remains open for submissions**, and we would like to encourage you to share your work here.

Alongside the scientific sessions, the BSG conference provided an excellent opportunity for networking and socialising amongst delegates bringing early career, established, professional and amateur geomorphologists together in a sociable setting. The Frost reception, supported by Wiley to celebrate the 50th anniversary of the journal Earth Surface Processes and Landforms, was held in Merchants Hall and 70 delegates enjoyed the Conference dinner and Awards ceremony held in The Royal Armouries. Other stand-out memories include the goody bag/merchandise, and the utterly engaging guided walk around central Leeds, the River Aire and the Flood Alleviation Scheme.

The local organising committee in the School of Geography, University of Leeds, would like to thank all who attending the 2025 BSG Annual Conference. Presenting your work, networking, had an energised buzz and that made the conference highly successful!



Professor Jonathan Carrivick
BSG Conference Organisation Committee
University of Leeds

Postgraduate News

Your Postgraduate Forum Committee

The current ***PGR representatives*** in various sub-comms/working groups are: ED&I – Siddha (QMUL), Professional – Varsha (Ulster), Research – Tom (Manchester), Outreach & Education - Ayyappadas (Oxford), Website Officer – Adam (QMUL) and Communications Officer – Jayesh (Aber).

Postgraduate Activity

- The new PGR cohort will be welcomed at the ***41st*** annual Windsor Workshop 2025 at Cumberland Lodge, Windsor, UK from 1-4 December 2025.
- We have launched our **webinar series** Geomorph Talks: Methods, Models & More (GT-M3). This series aims to provide postgraduate students, early career researchers, and the wider geoscience community with insights into key applications and methodological approaches in geomorphology.
- A PGR/ECR workshop was conducted at the Leeds BSG conference on "**Stick or Twist - where do I see myself working as a geomorphologist in the future?**" by Dr Ellie Highwood and Dr Catherine Souch.
- The PG Forum committee members have also been busy attending and working in the UK and abroad:
- Adam, Siddha and Jayesh attended the BSG AGM at Leeds and presented their respective PhD research works.
- Adam went to the Flood Modeller 2025 conference.
- Magdalena completed a summer field work at some European avalanche sites and presented a poster at the International Mountain Conference (IMC) in Innsbruck, Austria (September 2025).
- Varsha completed her research work at Caltech (USA) as a visiting doctoral researcher. One can read her recent **PGR Blog** post on Are Recent Gullies on Mars Formed by Water?

*Some important **upcoming*** conferences – EGU 2026 & QRA ADM 2026.

We are always open to new members eager to help represent student voices within the BSG and to assist in planning and hosting postgraduate events. If you are interested in joining, feel free to reach out at bsgpostgrads@gmail.com or scan the QR code. For any ***website related queries***, please contact our Website Officer **Adam Hartley** at a.t.hartley@qmul.ac.uk.

Follow us at:

Instagram: bsgpostgrads

Facebook: BSG Postgraduates

Jayesh Mukherjee
Aberystwyth University
Postgraduate Forum Chair
jam169@aber.ac.uk


Adam


Shashi


Jayesh

ECR workshop 2025

Outreach and Education News

At the RGS-IBG annual conference in August, Dr Hywel Griffiths (Aberystwyth University) and Dr Caroline Clason (Durham University) organised a BSG-sponsored session on 'Art-Science Collaborations in the Geosciences' bringing together geomorphologists and other geoscientists and artists. Two sessions were held, comprised of 10 talks on subjects ranging from river science engagement to comic books and glaciology to geodiversity. It is hoped that some of the papers will be published in the near future.

At the BSG annual conference in Leeds in September, it was agreed to establish the Lynne Frostick award as a new award in outreach and education alongside our established research-related awards. The award recognises Professor Frostick's significant contribution to raising the profile of geomorphology in communities such as engineering and flood risk management. The award is to recognise individuals who have made an outstanding contribution in geomorphology outreach, education and engagement over a sustained period. The winner will receive the Medal and be invited to give their award lecture at the annual conference. Please consider making a nomination via the process outlined here by the 31st of December.

Also at the conference in September, Sophie Snowball was awarded the Marjorie Sweeting Award for the best undergraduate dissertation in geomorphology, and gave an excellent talk based on their thesis, undertaken while studying at Newcastle University. Adam Wright also gave an excellent talk on work undertaken while studying at the University of Sussex, which was highly commended in this year's competition. Congratulations again both.

Finally, Dr Kathryn Adamson (Manchester Metropolitan University) was elected as chair of the Education and Outreach committee at the annual conference in Leeds – thanks Kathryn and best wishes!

Dr Hywel Griffiths (hmg@aber.ac.uk)
BSG Outreach Chair
Aberystwyth University

Credit: Mary Bourke
Rosslare Strand, Ireland

Research Committee

We’ve had a lot of change in the Research Committee over the last 12 months, so I’d like to introduce you to everyone involved in supporting the Society’s research activities, reviewing grants and award nominations, and providing oversight of the Fellowship process:

- Vice-Chair: Emma Shuttleworth, University of Manchester
- Ordinary Secretary: Catherine Sanders, University of Lincoln
- Awards Officer: Jeff Warburton, Durham University
- Grants Officer: Natasha Wallum, University of Oxford
- Reports Officer: Josh Wolstenholme, Loughborough University
- Co-opted member: Andy Russell, Newcastle University
- Postgrad rep: Tom Mair, University of Manchester

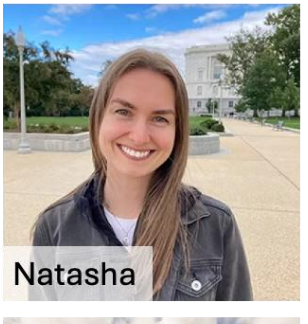
Huge thanks to our outgoing members (Vice-chair Lucy Clarke, Grants Officer Seb Pitman, Awards Officer Steve Derby, Co-opted member Christopher Darvill, and Postgrad rep Aaditya Kapil) for all of their valuable contributions during their time on the Committee.

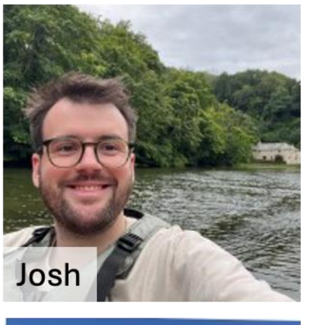
Grant funding

Two grant rounds are held every year and we awarded £41,500 in 2024/25. Congratulations to our successful grant holders! You can see a full list of recent successful applicants here to inspire your own applications. We have just met to review the Sep 2025 submissions, and we’ll open the Feb 2026 round soon. You can find out about all of our grants and how to apply here.

Awards

Our 2025 Award winners were celebrated at the 2025 annual meeting in Leeds. Well-deserved congratulations to all! You can find out more about our Awards, including citations for the 2025 winners and how to nominate here. Nominations for 2026 are open until midnight on 31st December. Our Awards are so important for recognising the amazing geomorphological research of the Society’s membership, so if you know someone who would be a worthy recipient, **please take the time to nominate** them.





Dr Emma Shuttleworth
BSG Research Committee Chair
The University of Manchester

Committee for Professional Geomorphology

The committee has said a sad farewell to Mattie Biddulph who has done a fantastic job as Chair over the past five years, she has been instrumental in raising the profile of professional and applied Geomorphology within the BSG and the whole sector – Thank you Mattie!

Professional Geomorphologists workshop. 'Soil to sea thinking: the emerging strategic application of geomorphology.'
This year's workshop at the conference in Leeds examined the development of applied geomorphology as a discipline over the past 50 years, followed by a lively group discussion about what the next 50 years may hold. We were thrilled to have Prof Janet Hooke share her experience of key milestones such as the use of coastal sediment budgets to underpin Shoreline Management Plans in England and Wales, and the growth in prominence of river restoration as a driver of applied fluvial geomorphology. The group discussion covered many different themes, including the challenges we face in ensuring a sufficient pipeline of trained geomorphologists to meet the growing demand in industry, driven by factors such as the increasing need for strategic application of geomorphology to manage hazards associated with climate change and support large-scale spatial and environmental planning. The discussion served as an excellent icebreaker to launch the conference and offered valuable guidance to the CPG regarding potential mechanisms for supporting the development of future applied geomorphologists.

Upcoming Seminars:
Wednesday 3rd December 13:00 – 14:00 – Dr Martin Mergili 'Turning the view - landslides as geosystem services' **[Join the meeting now]** (Meeting ID: 396 397 630 344 09 Passcode: G6tD3k2V)

To see more upcoming seminars, and past seminar recordings please visit our section on the BSG website - Seminars, Training and Networking Events - British Society of Geomorphology

Do you want more information, or do you have any ideas or suggestions?
If you would like any more information about the BSG CPG, or want to raise an idea, then please get in touch with the committee chair or secretary (details below).

Chair of the BSG Committee for Professional Geomorphologists:
Matthew Hemsworth: matthew.hemsworth@jbaconsulting.com
Secretary of the BSG Committee for Professional Geomorphologists:
Oliver Grant: oliver.grant@environment-agency.gov.uk

BSG Windsor Workshop 40th Anniversary

The BSG Windsor Workshop PhD Training event was held at Cumberland Lodge, Windsor Great Park on 2-5 December 2024. There were 20 attendees who were all within the first year of their PhD, who had joined us from four different countries across Europe and 16 different institutions. This year we were again supported by the International Association of Geomorphologists who provided funding to support attendance for three non-UK students from Europe.

The workshop was run by Lucy Clarke (Nottingham Trent University), John Wainwright (Durham University), Emma Shuttleworth (University of Manchester) and Joanne Old (Environment Agency). External speakers also included Annie Ockelford (BSG Chair), Jayesh Mukerjee (BSG PGR Forum Chair), Eleanore Miles (Atkins Realis) and Stuart Lane (Editor ESPL). Sessions covered the principles of a PhD, philosophy of research, project planning and time management, publications, careers and an introduction to coding to support research, as well as a session provided by the venue on Ethics and two opportunities for the students to present their PhD work to the group. Feedback from the attendees was overwhelmingly positive, with some useful suggestions that will be incorporated into this years workshop.

The venue has been booked for the BSG Windsor Workshop 2025 on Mon 01 – Thu 04 December 2025 – we hope to see many of you there!

Dr Lucy Clarke
BSG Windsor Workshop Team
Nottingham Trent University




ESPL Research Highlight: Dr Jana Eichel

Why sediments matter for mountain biogeomorphology?

Mountain slopes are not only steep and geomorphologically active, but also home to diverse vegetation communities adapted to their challenging conditions. Previous research in 'mountain biogeomorphology' found close relationships and feedbacks between geomorphic processes, landforms and plant communities**. But what about the sediments?** They get transported, make up landforms and form the base for plant and soil development. Do they matter for biogeomorphic feedbacks, and, if yes, which sediment properties matter most and how can we measure them best?

In summer 2022, Masters student Philipp Gewalt set out to unravel the role of sediments for mountain biogeomorphic feedbacks, conducting detailed sedimentological analyses across debris flow, rock glacier, moraine and solifluction slopes in Valais, Switzerland. Combining sediment data with vegetation and geomorphic data, our multivariate statistical analyses revealed **two key findings:**

(1) Sediment properties, geomorphic processes and species composition are closely related in mountains. **If biogeomorphic feedbacks can happen appears to depend on both sediment properties and geomorphic activity**, with possible textural 'establishment' and 'engineering thresholds' related to grain size distributions (Figure 1). Our study suggests that sediment properties matter most where geomorphic activity is low or absent.

(2) Sediment texture with median grain sizes for **coarse (> 2 mm)** and **fine (≤ 2 mm) sediments**, as well as **sediment chemistry (bulk Fe, Ca)** and linked **soil properties (TOC and N concentrations)** are the **most important sedimentological properties** in our high mountain biogeomorphic system. By gathering and processing sedimentological and linked soil data throughout all stages of a project (Figure 2), sedimentological observations can be efficiently included into mountain biogeomorphic research.

Our results provide directions for future research, including the identification of (1) a distinct grain size threshold above which sediment properties become more important than geomorphic processes and (2) process-related intensity thresholds below which sediment properties become more important than geomorphic processes. Thereby, a 'textural feedback window', analogous to the geomorphic activity-based 'biogeomorphic feedback window' (Eichel et al. 2016, ESPL) could be defined, improving e.g. our understanding of climate change impacts on moving mountain slopes and shifting mountain plants

You can read the full article here: https://onlinelibrary.wiley.com/doi/epdf/10.1002/esp.70179

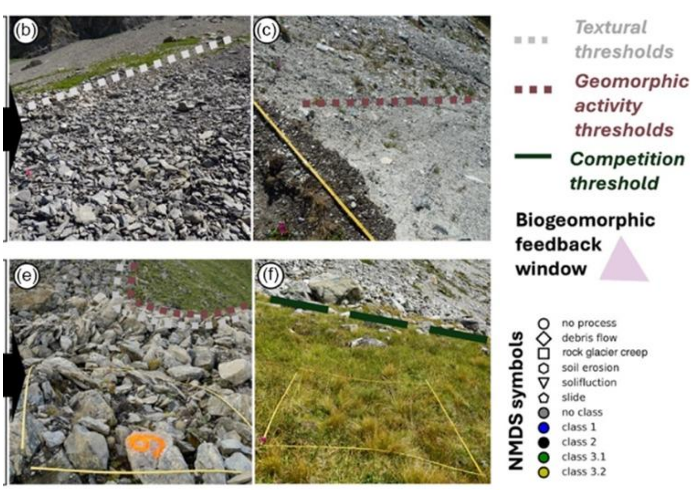


Figure 1: *Sediment texture and geomorphic activity control biogeomorphic feedbacks on mountain slopes.*

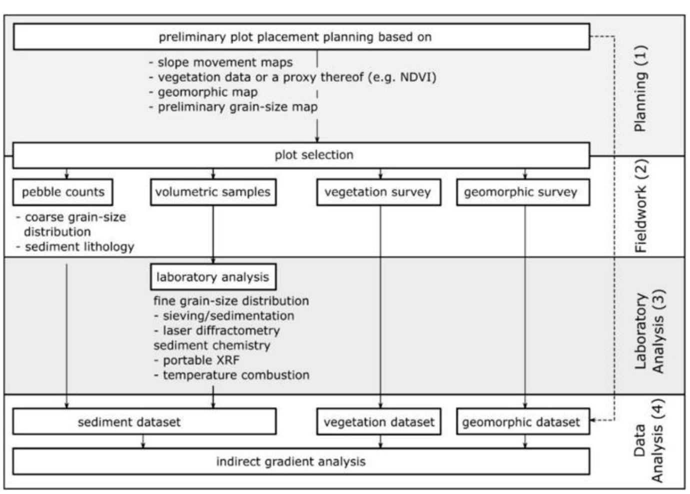


Figure 2: *Our workflow for the standardized inclusion of sediment properties into mountain biogeomorphic research.*

Quantifying the Form-Flow-Saltation Dynamics of Aeolian Sand Ripples

Prof. Joanna Nield, Dr Matthew Baddock and Prof. Giles Wiggs

In fieldwork spanning 10 years and two continents we uncover how changes in wind speed or wind direction modify aeolian ripple morphology and migration rates. Pushing terrestrial laser scanning (TLS) to its limits, we are also able to decipher small differences in saltation dynamics occurring at the micro-scale of stoss and lee slopes on aeolian ripples, in agreement with model and wind tunnel predictions (Figure 1). Ripples are ubiquitous on any sandy windblown surface and their fundamental nature is nicely illustrated by the variety of grants that have supported this investigation, where the ripples themselves may not always have been the main focus of any given study but were always influential. For instance, ripple movement adds additional sediment transport over dune brinks to initiate avalanches, while their form changes the behaviour of sediment transport as grains saltate over contrasting surfaces that can aid in the development of protodunes.

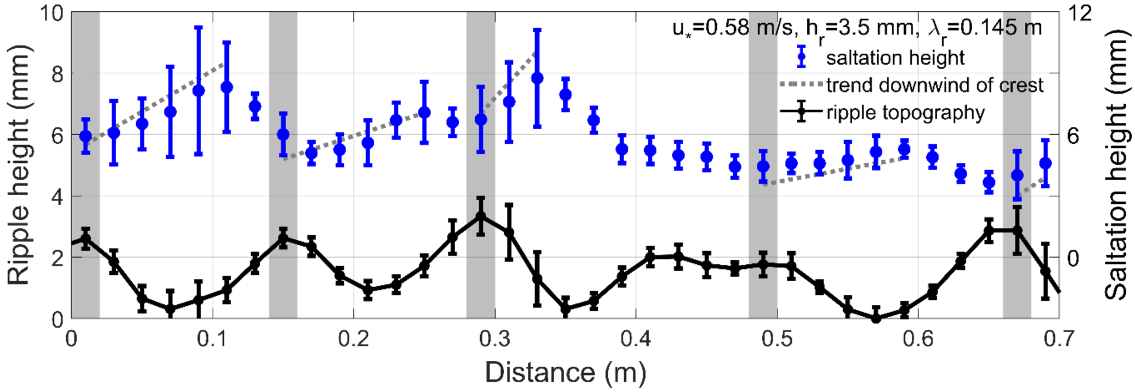


Figure 1: *Estimate of instantaneous saltation height over ripple stoss and lee slopes, where h_r is mean ripple height and λ_r is mean ripple wavelength. Shaded areas indicate ripple crests.*

Along the way there have been many memorable field campaigns, from the logistics of estimating the number of potatoes and onions required for wild camping on the remote Skeleton Coast of Namibia to the challenge of installing several hundred kilograms of equipment kilometres along a creek bed at 2600 m altitude without the use of wheels (sleds come in handy on rippled sand it turns out, though occasional snowfalls to bury ripples are less helpful; Figure 2). Ultimately our research has discovered that whilst under typical wind conditions there is a linear relationship between ripple migration rate and wind speed, under strong winds this relationship becomes more nonlinear (Figure 3), likely as the sand transport transitions towards a collision regime. In terms of adjustment times, ripple migration is the first behaviour to adjust to changes in wind speed, followed by ripple height, wavelength and orientation. We also find that ripples are slower to adjust to reductions in wind speed relative to increases in wind speed. This hysteresis effect has implications in remote environments such as Mars where ripple morphometrics are used to indicate wind conditions.

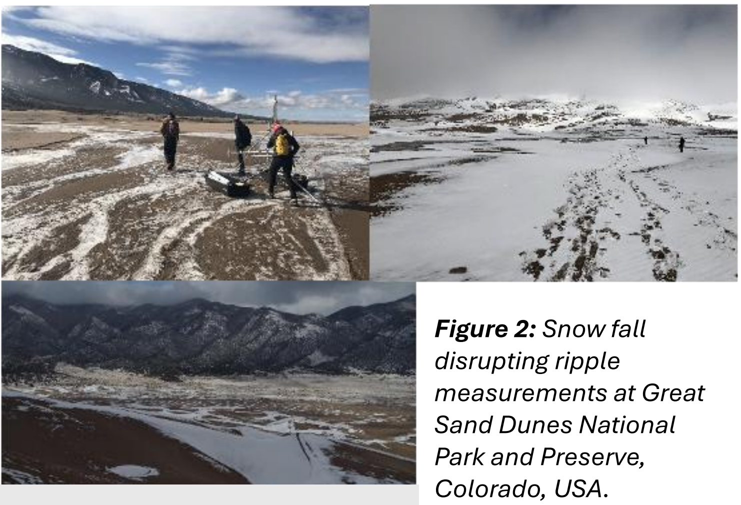


Figure 2: *Snow fall disrupting ripple measurements at Great Sand Dunes National Park and Preserve, Colorado, USA.*

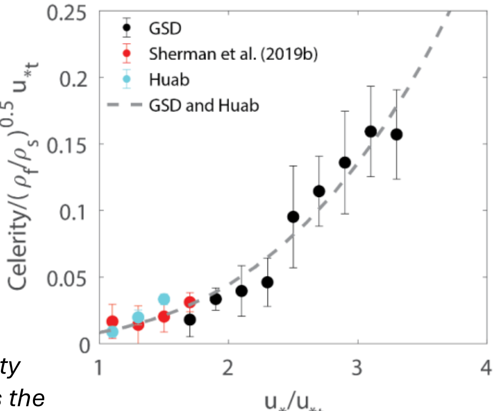


Figure 3: *Normalised relationship between ripple celerity (migration rate) and shear velocity (u_*), where u_{*t} is shear velocity threshold, ρ_f is the air density, and, ρ_s is the sediment density. Data plotted is from Great Sand Dunes National Park and Preserve (GSD), USA, Huab Valley, Skeleton Coast National Park, Namibia and data published in Sherman et al. (2019).*

Read the full article.

Art Competition - Now Open!

It's time once again to look through those holiday snaps, those fieldwork photos, and those stunning drawings of geomorphology as we launch the BSG Art Competition 2025. As usual, the Communications and Publications Committee along with the Vice-Chair of the Outreach Committee will form the judging panel who will reward the best photo with a £100 prize. We will also be offering £50 for the two best runner up photos.

The rules are pretty simple: you can submit a maximum of two photographs/artworks and **MUST** be registered as a BSG member (you can do this on our website - see page 2 for a link). Submissions will be received through BlueSky, Facebook, Instagram and, for the first time**, LinkedIn**, but **will only be counted if they tag the BSG in their post and use the hashtag #BSGAC25.** Failure to do so will unfortunately mean you will not be entered into the competition. The submission deadline is **9th January 2026 at 23:59 UTC.**

For some inspiration, you can check out last year's top two entries from Saraswati Thapa and Stephen Tooth

A full list of terms and conditions can be found here:

1) The theme of the BSG art competition is geomorphology and is open to individual interpretation.

*2) Entrants can submit up to two images through either the BSG Facebook account, Twitter feed, or via Instagram by tagging @BSGeomorphology /@bsg-geomorph. **ALL ENTRIES MUST USE THE HASHTAG #BSGAC25 to be considered**. The BSG may subsequently contact entrants to supply a high resolution copy of the photograph.*

3) The competition is open to all up-to-date members of the British Society for Geomorphology (non-members' entries will be disqualified).

4) Each entry should be marked with where the photograph was taken.

5) The competition closes at 23.59 on Friday 9th January 2026 (UTC).

6) All entries will be judged by the members of the BSG Communications and Publications Sub-Committee plus the Vice Chair of the Outreach Committee. They will shortlist the top three images and select their favourite entry; the winner will receive a prize of £100 and two runners up prizes of £50 will be awarded to the other two shortlisted entries. All three will appear in the BSG biannual newsletter. Our decision is final and no correspondence will be entered into. The prize is non- transferable, non-refundable and non-changeable. Competition winners will, in the first instance, be contacted through the Bluesky, LinkedIn, Instagram, or Facebook accounts with which they submitted their entries or via email.

7) All entries must be the original work of the entrant and must not infringe the rights of any other party. The entrants must be the sole owner of the copyright in all images entered and must have gained permission of any people featured in their entries. Further, entrants must not have breached any laws when taking photographs.

8) Entrants will retain copyright in the photographs that they submit. By entering the competition all entrants grant the BSG the right to use the images on publicity material for the society and on the BSG website and social media sites. No fees will be payable for any of the above uses.

9) By entering, entrants will be deemed to have agreed to be bound by these rules and the BSG reserves the right to exclude any entry from the competition at any time and in its absolute discretion if the BSG has reason to believe that an entrant has breached these rules.

50 Years of Change in Geomorphic Systems:
Celebrating the 50th Volume of *Earth Surface Processes and Landforms*

Submission Deadline: Thursday, 31 December 2026

In 1976, the year in which *Earth Surface Processes and Landforms (ESPL)* was first published, the wider geosciences community was presented with a seminal paper that emphasized how relatively small changes in astronomically driven solar forcing could, through feedbacks, drive major climate change (Hays et al., 1976). This year was also in the middle of a period of rapid rethinking of the relationships between humans and climate, away from discussions regarding an impending Ice Age and towards the first recognition that human activities can cause rapid global warming. At around the time *ESPL* (then *ESP*) was accepting its first submissions, Manabe and Wetherald (1975) published the first 3D global model, predicting that for a doubling of atmospheric CO_2 would lead to a 2°C increase in temperature. We know today that their predictions were remarkably accurate for such an early model.

But what does this mean for geomorphology? Over this 50 year period, geomorphology has also come to recognize the extent to which humans now impact Earth surface processes and the landforms they shape. Studies of human impacts on coastal processes, soil erosion, aeolian sediment production and transport, river form and process, are all now routinely found in the journal. The discipline of geomorphology has perhaps been more reticent in thinking through how rapid climate change might influence geomorphic processes, a point we made in an Editorial more than 10 years ago (Lane, 2013). One of the hypotheses for such reticence follows from the dominant but local impacts of human activities, ones readily measured at the relatively small spatial-scales and often relatively short timescales, palaeo studies aside, that allow geomorphological fieldwork. The scaling-up of such measurements to global-scale signals, characteristic of other kinds of climate change impact studies, is challenging due to data availability; the difficulty of separating local signals from larger-scale signals; the confounding effects of direct human activities upon climate change signals; and the technical challenges for numerical models that must represent highly non-linear systems, dominated by feedbacks.

With *ESPL* in the midst of its 50th Volume, this is changing. The era of "big data" is reflected in radical developments of high-resolution measurement systems and equally novel ways of harnessing artificial intelligence to access and to analyse the massive volumes of global data now available. We may be at the cusp of a revolution in the ability of geomorphology to contribute to global debates regarding how human activities are impacting Earth surface processes over decadal timescales. This revolution is not just about measuring today or reconstructing change over the last 50 years. It is also about being able to separate the changes we are seeing today from natural variability in the past, and new ways in which we can reconstruct geomorphological processes extending back into times before humans were significantly modifying their environment.

To celebrate the 50th anniversary, *ESPL* is publishing a special issue dedicated to the ways in which human activities, direct and indirect, are driving changes in Earth surface processes and the landforms that they create, often beyond what is found in the historical record.

Submit to the special issue here

Professor Joanna Bullard 1969 - 2025

It with great sadness that we announce the death of Joanna Elizabeth Bullard, Professor of Physical Geography at Loughborough University, during the early hours of 27 October 2025. Jo passed away peacefully in Leicester Royal Infirmary after a short illness at the age of 56.

Jo studied for her undergraduate degree in Geography at the University of Edinburgh between 1987 and 1991. She then moved to the University of Sheffield in 1991 to undertake her PhD on the morphological variation of linear sand dunes in the southwest Kalahari and their relationship with environmental parameters, which was awarded in 1994. Her first academic post was as a Lecturer in Geography at Keele University (1994-1998), after which she moved to the Department of Geography at Loughborough University in 1998, gaining a personal Chair in 2011. Jo also held the honorary position of Adjunct Professor in Atmospheric Research, Griffith University, Australia from 2004-2016.

Over the course of her career, Jo made ground-breaking contributions to geomorphology and to the wider teaching of geography, supported by significant funding from bodies including the NERC, the Leverhulme Trust and the Royal Society. Jo proudly referred to herself as an aeolian geomorphologist and it would not be an understatement to say that her research has re-shaped the way we think about wind as a geomorphic agent. Jo worked in an astonishing array of environments ranging from hot and cold deserts to temperate coastal zones. Although fieldwork was her passion, she also employed laboratory, modelling and remote-sensing methods to answer fundamental geomorphological questions.

Few people will be aware that Jo's first publication was a co-authored paper on iceberg toolmarks in the *Journal of Glaciology*. However, after this aberration, her work became decidedly windy. Jo's early focus was on understanding the influence of wind regimes in shaping desert dune patterns, through studies in the Kalahari, Namib and Simpson deserts. Her analyses of variations in dune activity in the Kalahari, in particular, provided key insights into the response of dunes to climate change and variability.

Jo published her first paper on dust in 2005, an experimental study of the release of iron oxides from natural dune sands by abrasion, starting a passion for dust that continued until her passing. Her research in this area focused on the dynamics of high-latitude, cold-climate dust sources – including field-based studies in Greenland and Iceland – revolutionising the way we think about high-latitude dust within the global dust cycle. Jo's 2016 study of 'High-latitude dust in the Earth system' in *Reviews of Geophysics* remains her most highly cited paper. She was instrumental in forming the High Latitude Dust in the Earth System research network in 2013 initiating collaborations to identify key research gaps that continue to this day.

Most recently, Jo's research focus shifted towards the transport and abrasion of microplastics by the wind. Jo was one of the first researchers to consider the impact of wind transport upon microplastic fluxes from soils and sediments; her 2021 paper in *Atmospheric Environment* had already received nearly 250 citations at the time of her death.

Professor Joanna Bullard 1969 - 2025

Jo's research was world-leading and recognised by her peers through a stellar array of awards and prizes. Her early promise was recognised in 2004 by the receipt of both the Gordon Warwick Award (presented by the British Society for Geomorphology) and the Philip Leverhulme Prize (Earth, Ocean and Atmospheric Sciences) for "significant advances in desert and near-desert environments". Her research leadership and standing was recognised by the award of Fellow of the British Society for Geomorphology in 2018. In 2021, Jo was presented with the internationally prestigious Ralph Alger Bagnold Medal by the European Geosciences Union "for sustained innovative, perceptive, and productive studies of arid-land geomorphology, aeolian processes, and dust in the Earth system, alongside outstanding community leadership"

In addition to her research talents, Jo was an outstanding academic citizen, taking on a number of significant leadership roles, including serving as President-Elect (2010-2014) and then President of the International Society of Aeolian Research (2014-2016) and as Vice-Chair (2013-2014) and Chair (2016-2020) of the British Society for Geomorphology. She was a passionate advocate for her discipline, serving as the first Chair of the Royal Geographical Society (with IBG) Geography Programmes Accreditation Panel (2016-2020), and as a member of the RGS-IBG Council (Expeditions and Fieldwork; 2017-2020) and RGS-IBG Professional Advisory Group (2019-2022). Jo also served on the editorial board of the journal *Geomorphology* (2004 onwards) and was Associate Editor for *Earth Surface Processes and Landforms* (2008-2013). She was the physical geography editor of the RGS:IBG Book Series (2006-2012) and most recently she had joined the editorial board of *The Geographical Journal* (2025).

At Loughborough University, Jo drove forward pedagogy as Associate Dean for Teaching (2014-2022), demonstrating significant leadership in coordinating the shift to online delivery during the COVID-19 pandemic. During this period, she was awarded Loughborough University Research-Informed Teaching Prize (2014) and then Principal Fellow of the Higher Education Academy (2016), the highest teaching-related accolade for a UK academic. Jo was awarded the Loughborough University Medal in 2025 'in recognition of her world leading research, her exemplary academic service with learned societies, her significant leadership and her passion for excellence in learning and teaching'.

Over the course of her career, Jo influenced the lives and careers of multiple generations of students and academics. She was an outstanding mentor, advocate and friend to her PhD students and postdocs, as well as to her many colleagues. This was evidenced by the shock and outpouring of love from around the world when her illness was discovered. If you worked with Jo, you knew that the science you were producing together would be of the highest calibre, but also that you had a supportive friend. Her passion for research, and particularly field research, was contagious. Literally weeks before her death she was supervising research students in Iceland and Scotland and working with collaborators in experimental wind tunnels in Canada. She was taken away whilst at the peak of her academic career and with so many scientific questions to answer. She will be sorely missed by many friends, colleagues and loved ones around the world and would also be delighted to know that we will honour her memory and contributions by doing what she did best; in Jo's words, "let's do some science".

Dr Annie Ockelford and Professor David Nash

Students measuring step-pools at Isle of Skye , UK - Rebecca Hodge