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Equinor

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Radioactive Waste Management Ltd

Jack Richardson
University of Birmingham

Anna Szolucha & Rachel Brown
Newcastle University

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BGS

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Communicating Geoscience: Building Public Interest and Promoting Inclusive Dialogue

4 September 2018

The Geological Society, Burlington House, Piccadilly, London



PROGRAMME AND ABSTRACT VOLUME

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Communicating Geoscience: Building Public Interest and Promoting Inclusive Dialogue

4 September 2018

The Geological Society

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PROGRAMME

CONFERENCE PROGRAMME

8:00	Registration and Refreshments
9:00	Welcome Conference Convenors
Session 1: Geoscience and Society	
9:10	KEYNOTE: Selling the Earth: geologists as marketers in an organisational rethinking of geoscience communication Iain Stewart & Victoria Hurth, <i>University of Plymouth</i>
9:40	Making geoscience pop: challenging preconceptions through engaging communication Laura Roberts, <i>Petrotechnical Data Systems Ltd</i>
10:00	Geoscience Communication: from Pupils to Engineers Stephanie Zihms, <i>Heriot-Watt University</i>
10:20	Refreshment Break
Session 2: Communication in Industry Case Studies	
10:50	KEYNOTE: Northern latitudes and evolving attitudes: 40 years in the Barents Sea Lisa Rebora, <i>Equinor</i>
11:20	Engaging with Indigenous Communities during petroleum exploration campaigns – experiences from Central America Philipp Essl, <i>Essl & Associates Ltd</i> & John Argent, <i>Sound Energy PLC</i>
11:40	Deep geological disposal of radioactive waste: obtaining and retaining public consent Jonathan Turner, <i>Radioactive Waste Management</i>
12:00	Lunch Break
Session 3: Informing Industry through Research	
12:40	KEYNOTE: The Effective Communication of Challenging Geoscientific Messages John Underhill, <i>Heriot-Watt University</i>
13:10	Letting off steam: introducing new geothermal technology into community narratives in Cornwall Hazel Gibson, <i>University of Plymouth</i>
13:30	Communicating Geoscience – the shale gas experience of the BGS Clive Mitchell, <i>British Geological Survey</i>
13:50	Communicating Geoscience: ReFINE as a case study Rachel Brown, <i>Newcastle University</i> & Anna Szolucha, <i>University of Bergen and the Polish Academy of Sciences</i>
14:10	Refreshment Break
Session 4: Tools for Public Engagement	
14:40	KEYNOTE: Geo-what? Jen Roberts, <i>University of Strathclyde</i>
15:10	The Conversation: turning scientists into journalists Stephen Harris, <i>The Conversation</i>
15:30	Why Blog? The benefits of the written word for science communication Jan Freedman, <i>Plymouth Museums, Galleries, Archives</i>
15:50	YouTube: a Gateway to Public Engagement

Communicating Geoscience: Building Public Interest and Promoting Inclusive Dialogue

	Jack Richardson, <i>University of Birmingham</i>
16:10	Panel Set Up
16:20	Discussion Panel
	Chair: Jen Roberts, <i>University of Strathclyde</i> Panel: Philipp Essl, <i>Essl & Associates Ltd</i> Hazel Gibson, <i>University of Plymouth</i> Clive Mitchell, <i>British Geological Survey</i>
17:00	Drinks Reception and Networking

Lower Library	
Display	North Sea core – a unique vehicle to communicate our geological history Henk Kombrink, Lloyd's Register and Aberdeen Director for the PESGB
Posters	"Geocontroversies" A selection of energy related articles to encourage discussion on how petroleum geoscience is represented and communicated to the public via the news media

Oral Presentation Abstracts (Presentation order)

KEYNOTE: Selling the Earth: geologists as marketers in an organisational rethinking of geoscience communication

Iain Stewart¹, Victoria Hurth²

¹*Sustainable Earth Institute, University of Plymouth*

²*Business School, University of Plymouth*

A critical challenge for scientists is how best to communicate to the wider public sphere their knowledge of Earth's natural resources and their understanding of the planetary boundaries within which humanity must operate. Against this backdrop, geoscientists are being encouraged to more effectively convey their technical expertise to non-technical audiences, and are increasingly engaging with the lay public about their work. The bulk of this public engagement activity emphasises the translation of geoscientific knowledge into the public and policy realm, yet this 'knowledge deficit' model has now been largely deemed ineffective by communication practitioners. Instead, the prevailing science communication paradigm has shifted away from designing one-way transfers of matters of scientific fact towards developing two-way dialogues around matters of popular concern – an approach in which scientists are reflexive and the public and other key stakeholders are active participants. In planning for and navigating through this new communications landscape, we explore how emerging sustainable business marketing paradigms offer potential new frames for 'selling' Planet Earth.

NOTES:

Making geoscience pop: challenging preconceptions through engaging communication

Laura Roberts

Petrotechnical Data Systems Ltd

Volcanoes, earthquakes and dinosaurs aren't the only thing going for the geosciences, despite what Hollywood, the media and the Friends franchise might have the general public believe. Across the board, the geosciences have a very important, and yet hugely underrated, impact on our everyday lives; arguably, none more so than the energy industry.

In this presentation I'll draw on a number of examples from my time as EGU's Communication Officer, as well as my work with Geology for Global Development and as Marketing Manager of PDS Group's Ava portfolio, to highlight how effective and engaging communication can challenge preconceptions people might have about a given sector, as well as bringing to the fore science that would otherwise go unnoticed.

NOTES:

Geoscience Communication: from Pupils to Engineers

Stephanie Zihms

Heriot-Watt University

Effective (geo)science communication is all about finding a common language and the ability to relate a story to the audience. This means identifying which approach works best – firstly it is important to understand which communication method works best for the communicator, and secondly which audiences will, or can be reached by the chosen communication pathway.

In my 5 years' experience communicating geoscience, I engaged with a variety of audiences including engaging with pupils attending Science Week, the general public at outreach events or via social media, and colleagues and peers in seminars and at conferences to industry sponsors and funding agencies. As such, I have had to vary my communication strategy to fit the scientific message and the target audiences.

Each communication pathway and each audience requires a unique approach that is largely dependent on language, which can lead to its own challenges and misconceptions. Being able to find a common language – verbal or non-verbal – is key to communicating effectively. In this talk I will focus on 4 communication pathways to give examples and showcase different approaches to geoscience communication:

1. Native language
2. Social media
3. Being in public
4. Industry sponsor meeting

NOTES:

KEYNOTE: Northern latitudes and evolving attitudes: 40 years in the Barents Sea

Lisa Rebora

Equinor

The Barents Sea, in the Norwegian and Russian Arctic, is one of the largest expanses of continental shelf in the world. Since the early 1980s, the industry has drilled over 130 wells in the Barents Sea in a bid to unlock the potential of a still relatively underexplored basin. Discoveries such as Johan Castberg and Wisting in recent years have provided a strong impetus to explore, whilst at the same time, opposition from environmentalists and politicians has increased both domestically and at a global level.

This talk will address the drivers for meeting future energy demand. It will speak to the need to engage more widely in developing a shared understanding of the fundamentals of operating and producing hydrocarbons in the region, and it will look at the impact of exploration for society against a backdrop of changing sentiments.

NOTES:

**Engaging with Indigenous Communities during petroleum exploration campaigns –
experiences from Central America**

Philipp Essl¹, John Argent²

¹*Sustainability Consultant, Essl & Associates Ltd.*

²*Exploration Manager, Sound Energy PLC*

Petroleum exploration campaigns ranging from geophysical surveying to exploration drilling are frequently socially sensitive undertakings where operations come into contact with communities. Concerns over negative environmental and social impacts from such operations, as well as expectations for broader socio-economic development benefits among impacted communities represent a significant challenge for companies to successfully achieve and maintain their social license to operate.

This is particularly acute when operations take place in socio-politically complex environments, where prior negative experiences and perceptions of the industry, or a lack of public trust in regulatory institutions may undermine public belief in companies' willingness or the authorities' ability to manage such negative impacts. A lack of technical understanding of petroleum exploration campaigns paired with under investment in education can further complicate companies' efforts to inform and consult with potentially impacted communities as well as building mutual trust.

Exploring for resources in indigenous territories adds additional layers of complexity and challenge to a company's efforts to obtain support and consent from Indigenous communities for its operations. Against a history of Indigenous People's marginalisation and discrimination, Indigenous People's rights are now recognised under international law (e.g. ILO Convention 169) and to be respected by international companies (as per IFC Performance Standards, UN Guiding Principles on Business and Human Rights, etc.). However, relationships between Indigenous communities and Governments often remain strained, leaving companies in a challenging place to simultaneously respect Indigenous People's rights, maintain effective government relations, and pursue business interest and operations.

This talk explores the nature of such challenges – and how they can be tackled – in the context of an exploration project offshore in Central America. Both speakers will share their direct experiences from working on this project from an exploration/asset management and social performance/human rights perspective.

NOTES:

Deep geological disposal of radioactive waste: obtaining and retaining public consent

Jonathan P Turner

Radioactive Waste Management

Preparations for undertaking one of UK's largest ever environmental projects are advancing rapidly. RWM is a public sector delivery body tasked with disposing of Britain's higher activity radioactive waste. The safest and most secure way to deal with higher activity waste is to emplace it in a highly engineered subsurface facility, or geological disposal facility (GDF), providing containment of radionuclides and isolation of the nuclear material from humans and surface processes. Like any subsurface infrastructure development, delivering a GDF requires suitable surface and geological characteristics – not the *perfect* geology – and a willing community (the 'social licence to operate'). It is possibly uniquely challenged by the need for sustained public consent and very long timescales, both in terms of GDF programme duration and the geological timescale (100k.y. to 1 million years) of the post-closure safety case.

Obtaining and retaining the trust of a willing community through the lifecycle of this >100-year programme is a particular challenge. The case is made especially difficult by the strongly negative public perception of nuclear technologies and the absence of high-profile advocates for geological disposal. These factors are amplified by lack of understanding, and even mistrust, among sections of society as to how the subsurface is managed (e.g. fracking). However RWM has learned from the mistakes of failed UK site selection attempts in the past, and continues to benefit from the experiences of overseas waste management organisations.

There is no obvious panacea but adherence to the following broad principles will maximise the chances of success.

Professional – in all its dealings with stakeholders, and in all its outreach activities and products, RWM needs to project a strong image of the 'competent developer' that understands its mission, the context within which it operates, and the real concerns of the general public. Examples will be shown of some of the public-facing materials being produced to support National Geological Screening such as videos, 'UK3D' block models, virtual reality visualizations.

Responsible – like any major infrastructure programme, HSE (health, safety and environment) performance will be the highest priority but it is perhaps especially important to GDF delivery where a sceptical public would rightly ask "How can I trust them to dispose of hazardous waste if they can't even...?"

Accessible and transparent – from the outset of site selection a commitment to sharing information interactively across the diverse range of RWM's many stakeholders, 'from schoolchildren to cabinet ministers', and ensuring that all voices are heard, will help build understanding and trust; independent sources of information like the Geological Society and British Geological Survey will be especially important here.

Learning – RWM needs to be clear that in a programme with this degree of complexity and longevity, its understanding of how it will deliver a GDF will constantly evolve alongside that of partner community(ies).

NOTES:

KEYNOTE: The Effective Communication of Challenging Geoscientific Messages

John R. Underhill

*University Chief Scientist & Shell Chair of Exploration Geoscience, Heriot-Watt University,
Edinburgh, Scotland, UK*

It has become the prerogative of scientists to try and effectively communicate key outputs that result from their studies, something that is now recognised in the evaluation of research projects through the Research Excellence Framework (REF), where Impact Cases now count for 25% of the scores. It is especially important to provide clear and reliable messaging when they affect people or may influence policymakers, be that through their impact for social well-being, economic prosperity or for general education. As the outcomes of the research may challenge the accepted norm, publication and communication of the results can be viewed as controversial and attract wider media attention.

The purpose of this paper is to provide a personal experience that discusses lessons learnt from and consequences of research work that has challenged the prevailing view. The talk will focus upon the media-attention given to the following exemplars: the search for Ancient Ithaca; the genesis of the Silverpit Crater; and the geological challenges associated with Shale Gas extraction and Carbon Storage in the UK, all of which led to intense media interest. As well as discussing the scientific basis for the research outcomes, the presentation will provide insights into the competing agendas and discuss the way in which the science was portrayed by different media outlets. In so doing, the talk will draw upon archive footage from TV and newspapers as well as the publications in peer-reviewed journals, all of which now form a hugely more significant part of the academic mix than was the case a few years ago.

NOTES:

Letting off steam: introducing new geothermal technology into community narratives in Cornwall

Hazel Gibson

Sustainable Earth Institute, University of Plymouth

The development and deployment of novel geological technologies in industry often raise anxiety in the public sphere. New technologies are intrinsically unfamiliar, not only to the public, but also to other technical specialists in the field. This can focus conflict and uncertainty around issues that may not actually be problematic, or obscure other issues that may actually warrant closer inspection. An example of an emergent geo-technology that has received little attention in the public or general technical spheres is the introduction of Enhanced Geothermal Systems (EGS) power in the UK. In 2018, a project testing the viability of deep geothermal heat and power began in Cornwall, England, and is likely to face contested issues of public perception that have confronted other novel geological technologies, such as Carbon Capture and Storage and hydraulic fracturing.

As a relative newcomer to the deep geological technologies mix in the UK, EGS benefits from being fairly unknown and thus avoiding major negative connotations, but also being a renewable energy resource and therefore generally perceived to be popular. Managing deep geothermal's debut into society is something that must be done carefully and it is essential that the public is a central partner in this introduction. The United Downs Deep Geothermal Power project just outside Redruth in Cornwall is providing the perfect opportunity to explore public perceptions of geothermal power and how those perceptions influence effective communication between different stakeholders.

NOTES:

Communicating Geoscience – the shale gas experience of the BGS

Clive Mitchell

Head of Corporate Communications & Publications, British Geological Survey

Prior to 2011, communication of BGS science was relatively straightforward. A significant part of our time was, and still is, taken up with earthquakes and other natural hazard events such as volcanic eruptions, landslides and sinkholes. On the 1st April 2011 a 2.3 magnitude earthquake occurred near Blackpool. The routine seismic alert for this relatively small earthquake was not particularly remarkable. It was only afterwards that the link was made with hydraulic fracturing ('fracking'). The reverberations of this small earthquake are still being felt today; BGS had entered into the whole new world of shale gas research.

The recent swarm of earthquakes in Surrey is the most recent example of where our monitoring work has attracted public interest. The 1st of April saw the first earthquake to be detected by modern instruments in the county (the last record was from 1551). Local concerns were immediately raised as there is considerable interest in developing oil and gas resources in Surrey. The BGS response was to install seismometers to determine the depth and location of the earthquake swarm with greater accuracy. It has also enabled the BGS to provide more information to local communities and also to explain, via the media, how earthquakes occur and the work of the BGS seismic monitoring network

Since 2011, the BGS has been a key part of the public debate around shale gas and it seems we have been referred to in virtually every media story on shale gas. In large part, this is due to BGS studies on shale gas and oil resources in the UK, including the Bowland Shale in central England, as well as resources in the Weald Basin, Wales, the Midland Valley of Scotland and the Wessex area. In 2014, a £31 million project, now known as UK Geoenergy Observatories, was announced which will create world-class, subsurface energy-research test centres in Cheshire and Glasgow. In 2015, partly in response to public concern for the potential impact of shale gas operations, the BGS started the Environmental Baseline Monitoring project in the Fylde, Lancashire and the Vale of Pickering, North Yorkshire.

The UK Government, industry, regulators, local authorities and local communities are now much more attuned to the shale gas research of the BGS, particularly our monitoring in areas where shale gas development is proposed. As a consequence, the BGS is much more alert and responsive to local concerns. We host community engagement events to help answer the questions and concerns of local residents on the monitoring work being carried out by BGS projects. This direct community engagement is very different to the public engagement that BGS staff are familiar with as part of BGS open days and science festivals. It is new to many BGS scientists who have found it to some of the most challenging and rewarding experiences of their BGS careers.

This presentation will cover the shale gas communication experience of the BGS since 2011. In particular, it will consider how as a public sector organisation we manage to provide impartial, objective geoscientific evidence for the good of society given the pressures surrounding the development of shale gas in the UK.

NOTES:

Communicating Geoscience: ReFINE as a case study: A joint presentation between

Rachel Brown¹, Anna Szolucha²

¹*Newcastle University*

²*University of Bergen and the Polish Academy of Sciences*

Fracking has been a controversial issue in the UK since the first attempted hydraulic fracturing operation in Lancashire in 2011. In this talk Rachel will introduce the ReFINE research project, a global independent research consortium, which was set up in 2012 to answer questions of public concern regarding the potential environmental and social impacts of fracking. She will summarise ReFINE's communication strategies, which have been adopted to deliver effective communication with a range of stakeholders; and how we have addressed challenges from stakeholders over the years. Anna - as a researcher not affiliated with the ReFINE project - will provide an independent assessment of the project's communication and engagement strategy by contextualising its reception by local communities as well as its impact on decision-making. Anna will also highlight lessons that can still be learnt when it comes to engaging with the public about the controversial subject of fracking.

NOTES:

KEYNOTE: Geo-what?

Jen Roberts

University of Strathclyde

This conference addresses a fascinating field, and one of increasing importance. Modern society is underpinned by the use of subsurface geological resources, whether it be the extraction of mineral resources, the use of groundwater resources, subsurface infrastructure such as sewerage and transport tunnels, energy storage, or waste disposal (e.g. waste water, CO₂ or radioactive waste). For the majority of adults living in the UK, the 'georesources' beneath our feet are invisible and rarely thought about. Until a radwaste facility is proposed in their neighbourhood. Or a company lodges planning application to drill an exploration well where they walk the dog. Or there is rumour of it, at least. For the general public, engineering the subsurface presents complex, uncertain, ambiguous, unfamiliar and multi-faceted risks. Current decision making processes and drivers for innovation tend not to account for or reflect these perceived risks, nor the moral or ethical questions that they stir up. This has led to high-profile coverage of a range of geological engineering or energy proposals, propelled energy and the subsurface into the spotlight, and opened the gates of the field of geoscience communication. In my talk I will reflect on the learnings from several pioneering research projects that I have contributed to which have aimed to reduce the social impact of developments, and to communicate – or broker communications between – publics, experts and developers. I will consider how process, language, 'expertise', and on the ground activity can enhance how we communicate geoscience, and, ultimately, affect the future of our georesources.

NOTES:

The Conversation: turning scientists into journalists

Stephen Harris

The Conversation

The Conversation is a news analysis and opinion website whose articles that are read over 12m a month by members of the general public but whose articles are written entirely by academics. Science editor Stephen Harris will explain how the site's team of editors help academic authors produce articles that are attention-grabbing, interesting and easy to understand for a non-academic audience.

NOTES:

Why Blog? The benefits of the written word for science communication

Jan Freedman

Curator of Natural History, Plymouth Museums, Galleries, Archives

Blogs today reach millions of people across the globe and have a larger reach than public talks and events. With more and more people reading blogs, they are becoming one of the main methods of science communication. For companies in industry this can provide an excellent method of promoting your work to the general public. You know the science behind closed doors. And you can make it accessible, share it, dispel myths, correct fake news, and promote public projects you are working on.

This talk will use the blog *Twilight Beasts* as a guide to develop your own successful blog. *Twilight Beasts* is a blog run by three people, which focuses on Pleistocene fauna. I will share what we have learnt in the three years we have been active. Blogs can not only provide interesting background stories to your projects, but also open up communication to a much wider audience.

NOTES:

YouTube: a Gateway to Public Engagement

Jack Richardson

University of Birmingham

Abstract: As an early career researcher, the primary focus is to add a meaningful piece of work to science. There are a lot of skills to learn along the way including, but not exclusively, communicating science to varied audiences. YouTube and social media give people the ability to communicate to global audiences with their own voice. In recent years this ability has not always been used to aid scientific fact. The internet is a platform which gives businesses and institutions the opportunity to directly share information with the public. Having an online presence is the norm and “influencer marketing” is becoming more prevalent. Learning to garner real engagements from views and impressions online is becoming an ever more important metric when trying to find voices which the public really trust. Through case study examples I hope to reveal how social media platforms can be used to start a conversation and then to develop meaningful two-way engagements.

NOTES:

Lower Library Display

Communicating Geoscience: Building Public Interest and Promoting Inclusive Dialogue

North Sea core – a unique vehicle to communicate our geological history

Henk Kombrick

Lloyd's Register, Aberdeen Director PESGB

With more and more oil and gas fields reaching the end of their lives across various parts of the UK Continental Shelf, the rock cores collected from the reservoirs and other intervals are being disposed of by the operators. The PESGB Council thought this presented a unique opportunity to obtain some of these cores, since the operators are often very willing to donate material. The cores tell us about the geological history of the North Sea and also provide a perfect vehicle to explain the elements of the petroleum system. The PESGB has therefore put together a collection of cores from a variety of classical North Sea reservoirs, seals and source rocks which greatly facilitates communicating (petroleum) geology whilst also allowing people to acquire some of Britain's geological legacy.



Burlington House Fire Safety Information

If you hear the Alarm

Alarm Bells are situated throughout the building and will ring continuously for an evacuation. Do not stop to collect your personal belongings.

Leave the building via the nearest and safest exit or the exit that you are advised to by the Fire Marshal on that floor.

Fire Exits from the Geological Society Conference Rooms

Lower Library:

Exit via main reception onto Piccadilly, or via staff entrance onto the courtyard.

Lecture Theatre

Exit at front of theatre (by screen) onto Courtyard or via side door out to Piccadilly entrance or via the doors that link to the Lower Library and to the staff entrance.

Main Piccadilly Entrance

Straight out door and walk around to the Courtyard.

Close the doors when leaving a room. **DO NOT SWITCH OFF THE LIGHTS.**

Assemble in the Courtyard in front of the Royal Academy, outside the Royal Astronomical Society. Event organizers should report as soon as possible to the nearest Fire Marshal on whether all event participants have been safely evacuated.

Please do not re-enter the building except when you are advised that it is safe to do so by the Fire Brigade.

First Aid

All accidents should be reported to Reception and First Aid assistance will be provided if necessary.

Facilities

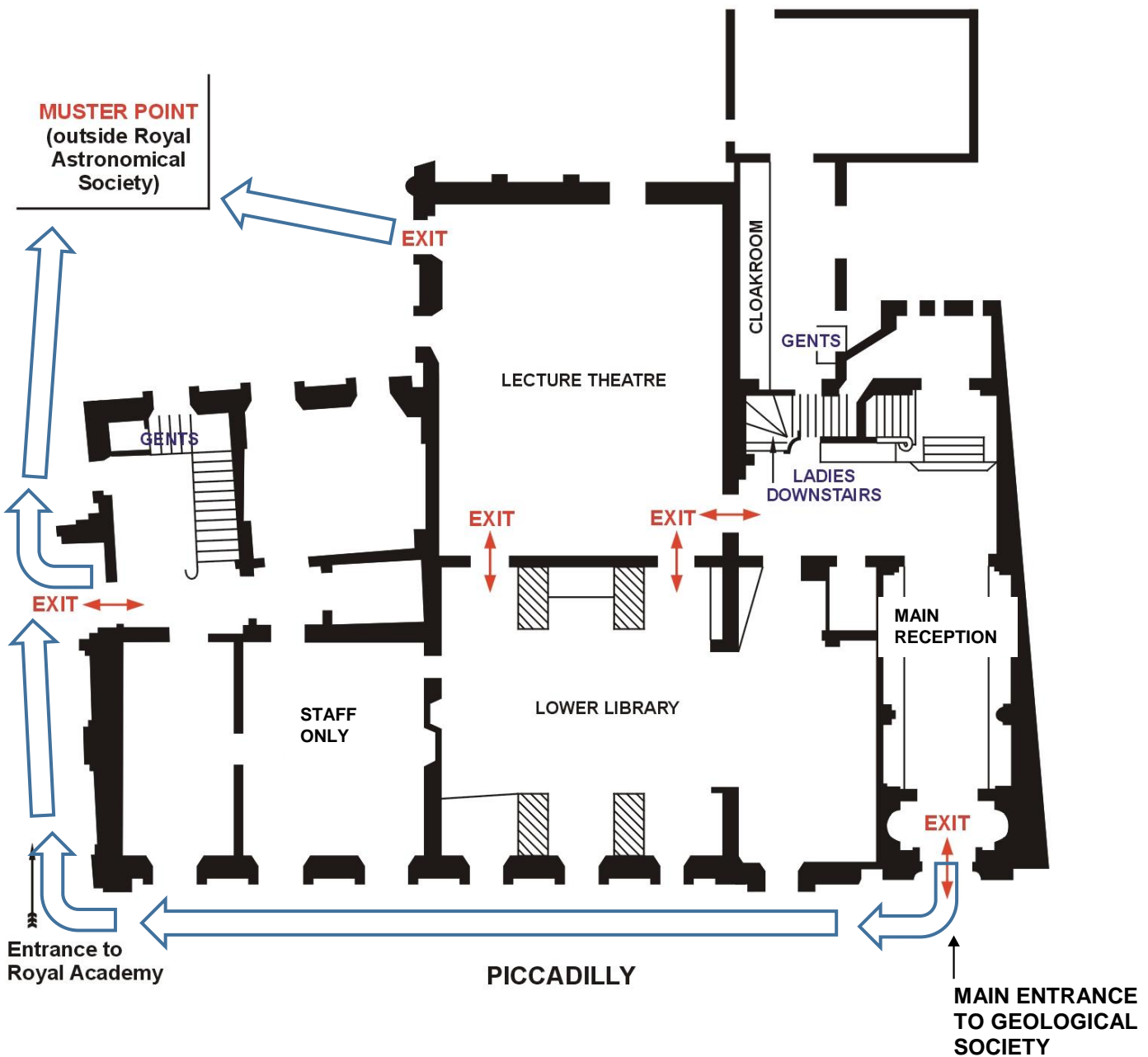
The ladies toilets are situated in the basement at the bottom of the staircase outside the Lecture Theatre.

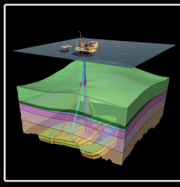
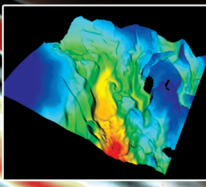
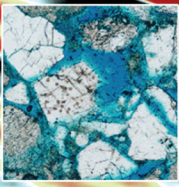
The Gents toilets are situated on the ground floor in the corridor leading to the Arthur Holmes Room.

The cloakroom is located along the corridor to the Arthur Holmes Room.

Ground Floor Plan of the Geological Society, Burlington House, Piccadilly

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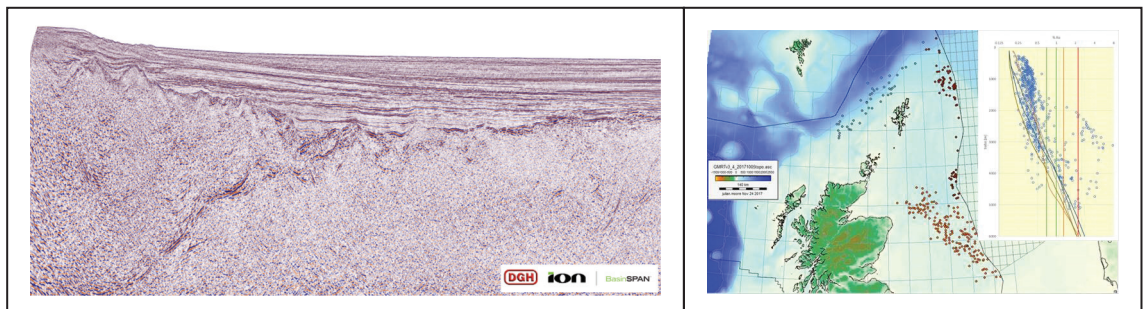


Registration now open

Interplay of heatflow, subsidence and continental break-up: a case study workshop

8-9 October 2018

The Geological Society, Burlington House, Piccadilly, London



In the past decade significant advances have been made in the understanding of the evolution of rifted margins. It has nonetheless proven difficult to match models of heatflow and subsidence during and after continental break-up with well data, seismic observations and field studies.

The aim of the meeting is to bring academia and industry together, particularly structural geologists and petroleum systems analysts with the aim of defining a common understanding of the data, models and challenges faced by the different disciplines interpreting and predicting structural evolution, heatflow and subsidence.

The workshop will take the form of keynote presentations followed by case studies in the following themes:

- Mechanisms of rifting and continental break-up
- Observations from borehole and high quality deep seismic data
- Challenges faced by petroleum systems analysts in applying models to real data.

The committee now invite submissions of case studies to supplement these themes and are particularly interested in examples where the current models do not adequately describe the observed data or examples where there are observed spatial and temporal variations in heat flow and subsidence along a continental margin. The case studies need to be data driven either seismic, wells or both. The workshop will also have dedicated break-out session where participants can discuss the issues outlined in the case studies, discuss potential solutions and then report back to the main meeting. We anticipate this workshop will be the impetus for cross-disciplinary research, follow-up workshops and a later conference.

The committee look forward to you joining us on the 8-9 October 2018 to participate in what promises to be an exciting and stimulating workshop.

For further information and registration please contact:

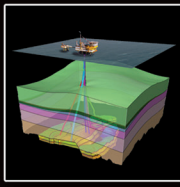
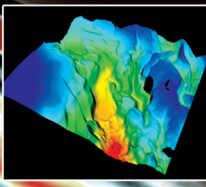
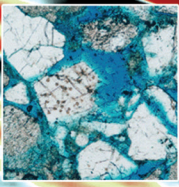
Sarah Woodcock, The Geological Society, Burlington House, Piccadilly, London W1J 0BG.
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Registration now open

The Geology of Fractured Reservoirs

24-25 October 2018

The Geological Society, Burlington House, Piccadilly, London



A large proportion of the world's oil and gas is produced from fractured reservoirs, with new discoveries continuing to be made and put into development. This conference will explore the many ways in which the geology of fractures is fundamental to the understanding of fluid flow in the subsurface, and hence to predicting and monitoring reservoir performance.

Fractured reservoirs are those in which fractures have caused a significant increase in total permeability. Carbonate reservoirs, tight sandstone reservoirs, basement reservoirs and shale reservoirs are all commonly fractured, and present significant challenges to petroleum geologists. The focus of these challenges, but not their significance, changes throughout a field's life-cycle from exploration to production. Many geothermal reservoirs are also fractured, and share common challenges. This meeting will highlight how multidisciplinary work is essential to develop an applicable understanding of the behaviour of fractured reservoirs.

Themed sessions to include:

- Fracture properties at micro and well scale – detection and characterisation
- Fracture properties at reservoir to basin scale – from outcrops to seismic to regional models
- The flow behaviour of fracture systems – the interaction of fluids, rocks and stress
- The integration of data, disciplines and insights – advancing our knowledge of fractured reservoirs

Field trip:

We are proposing to have a conference Field Trip, Fractured Zechstein carbonates of NE England, in conjunction with this conference. For more information, or to register please visit the conference website: <https://www.geolsoc.org.uk/PG-Fractured-Reservoirs> or contact Sarah.woodcock@geolsoc.org.uk

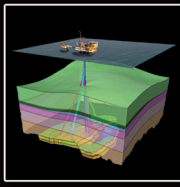
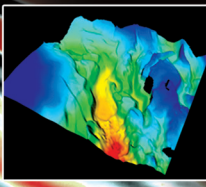
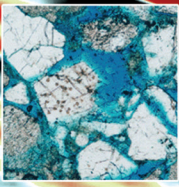
For further information please contact:

Sarah Woodcock, The Geological Society, Burlington House, Piccadilly, London W1J 0BG.
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Registration now open

Operations Geoscience Adding Value

7-8 November 2018

The Geological Society, Burlington House, Piccadilly, London



The main focus will be on the value operations geoscientists deliver and the pivotal role they play via the following topics:

- **The value of learning lessons well** – what is a lesson?; how are lessons learned and managed (e.g. avoiding non productive/invisible lost time)?; practical examples of lessons with demonstrable change; personal willingness to share failure/sub optimal performance
- **Risks and safety of operations** – identifying, managing, communicating risks and planning contingencies effectively
- **Formation pressure and geomechanics** – sharing good practice, techniques and knowledge, prediction and detection methods
- **The value of managing and interpreting data** – effective data management for field life, examples of cross company collaboration

Overarching themes:

- Value of these themes to **well life cycle**
- Sharing real world **examples and case studies**
- Importance of **personal behavioural skills** throughout (leadership, communication, relationship building and influencing others)
- Share good practice, showcasing **innovative approaches and technologies**

We look forward to active participation from our colleagues across subsurface, drilling and engineering disciplines to significantly broaden the main conference themes.

There will be a parallel poster session in the library.

For further information and registration please contact:

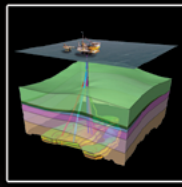
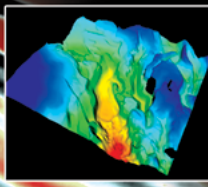
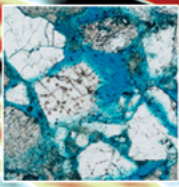
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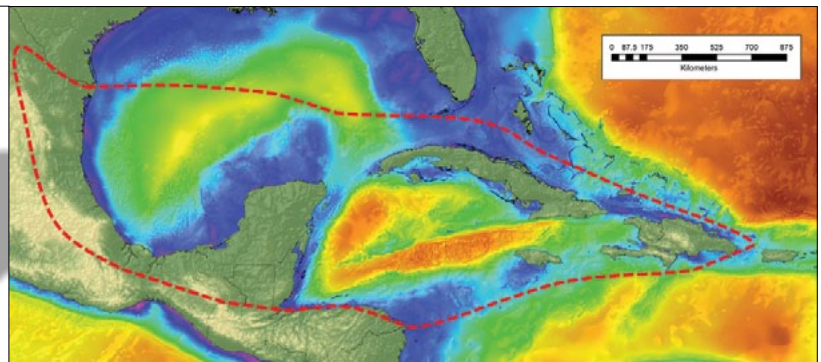
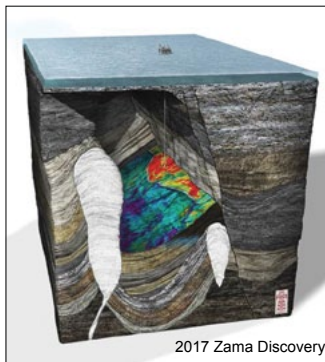


Call for Abstracts – Deadline: 30 November 2018

Petroleum Geology of Mexico and the Northern Caribbean

14-16 May 2019

The Geological Society, Burlington House, Piccadilly, London



The Gulf of Mexico is a world class prolific hydrocarbon system. As a result of recent energy reform the Mexican sector of this basin has been open to international companies for the first time through a series of competitive licence rounds. The first phase of drilling on these newly awarded permits has resulted in the discovery of giant hydrocarbon accumulations in the Mexican offshore sector. Geologically, the offshore and onshore basins of Mexico offer a diverse range of play types with multiple source / reservoir pairs and are characterised by complex tectonic evolution with associated halokinesis and shale tectonics.

More widely within the Northern Caribbean region, exploration activities are ongoing in several countries targeting both proven and frontier petroleum systems. Some of these play elements are potential extensions of the proven systems in Mexico. While geologically complex, these areas have the potential to emerge as major hydrocarbon basins.

This regional conference aims to bring together both academic and industry geoscientists together to discuss the current state of understanding of the geology and petroleum systems in these geologically complex, but prolific hydrocarbon basins.

The committee now invite submissions of abstracts along the following themes

- Regional Plate Tectonic Evolution
- Basins of Mexico and the Northern Caribbean
- Onshore Basins and the Laramide and Chiapas Fold Belt effects
- Petroleum Systems
- Exploration & Production History
- Neogene Clastic Depositional Systems
- Carbonate Depositional Systems
- Salt Tectonics
- Controls on hydrocarbon habitat – seal capacity
- Relevant GOM Analogues

Call for Abstracts:

Please submit talk or poster abstract to sarah.woodcock@geolsoc.org.uk by 30 November 2018.

For further information please contact:

Sarah Woodcock, The Geological Society, Burlington House, Piccadilly, London W1J 0BG.
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