

Home Counties North Regional Group

Newsletter - Issue No. 7 – May 2020

Welcome from Newsletter Editor – Zuzana Lednarova

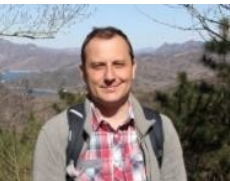
WELCOME to the seventh edition of the Newsletter of the Home Counties North Regional Group. This newsletter was prepared by most of the members of the committee, each contributing their input based on the lectures, events, seminars, and weekend visits which they have been a part of. This newsletter presents a brief overview of the past events organized by the committee in 2019/2020, and also presents a quick glance at upcoming events, which were planned for the rest of the year. However, as this newsletter is being published during the Covid-19 pandemic, we would also like to update you on the committee, and our plans for the future. Many changes have occurred within the committee since 2018, therefore apologies for the long gap between the last newsletter, Issue No. 6 (June 2018), and this newsletter issue. The committee Chair of the committee remains as John Wong, the Secretary as Rudy Domzalski, and the Treasurer as Mick McCullough. Additionally, Karoly Pesztranszki as Web Administrator and Publicity Coordinator, and myself as Newsletter Editor.

HCNRG Officers 2019/20

Chair: John Wong has a BSc in Geology (University of London) and MSc in Analysis of Geoscience Data, including computer modelling (Kingston University). He also studied Masters degrees in Petroleum Geology and Geophysics at Greenwich University and Sedimentology at University of London. John has worked in the oil and gas industry as Development Geologist and Consultant Geoscientist. He is the Field Officer for the Amateur Geological Society (AGS, based in Finchley, north London) since 2007 and has organised/led more than 80 non-repeated monthly field trips for that group and he was the Events Organiser for the Bedfordshire Geology Group from 2008 to 2010. John has a passion for vertebrate palaeontology; and geoarchaeology of Hertfordshire and medieval battlefield geology are amongst his many leisure research interests in geology.



Secretary: Rudy Domzalski is a geophysicist with experience in archaeology as well as the petroleum industry. He started his career as an archaeologist excavating and applying geophysical surveys on sites in the UK. Following further studies at UCL and Imperial College he became a Petroleum Geophysicist where he processed seismic maps for oil and gas exploration. He keeps his knowledge of Geology and Geophysics up to date by going on fieldtrips and conferences around the world



Treasurer: Michael McCullough got his M Phil from Camborne School of Mines in 1976. He is a Chartered geologist, scrutineer and Chartership Committee member. He has worked for Wimpey Laboratories as a field geophysicist, Exploration Consultants, Pentex and Marathon Oil as Senior Geophysicist in the oil industry and as consultant senior geophysicist since 1995 for both seismic interpretation and client representative on VSP and site surveys. During downturns in the oil industry, he has been an associate of M & M Geophysical for geotechnical geophysics and part owner of Blue Diamond Drilling, a geotechnical drilling company and spent several years as second driller and site geologist.



Web Administrator and Publicity Coordinator: Karoly Pesztranszki has a BSc in Geology (University of London) and an MSc in Engineering Geology (University of Portsmouth). Since finishing his studies in 2018, Karoly has been working as a graduate geotechnical engineer at RSK Environmental Ltd. Karoly has a passion for geology, astronomy and various engineering subjects and he is keen on attending lectures and field trips as part of his personal and professional development. He also enjoys undertaking various engineering related online courses. Karoly joined the HCNRG Committee in May 2018.



Newsletter Editor: Zuzana Lednarova is currently working as a geotechnical engineer, and has a BSc in Geology (Imperial College London), and an MSc in Engineering Geology (University of Portsmouth). To date, Suzie has had the opportunity to work in numerous locations around England, familiarizing herself with the Wealden Basin, the London Basin, and also areas around Bedfordshire, Birmingham, and Leicester. Suzie is highly interested in the geological subject and enjoys attending lectures and seminars, as well as travelling around the world and visiting geologically famous landmarks/sites.



CONTENTS	PAGE
<u><i>Welcome from Newsletter Editor – Zuzana Lednarova</i></u>	1
<u><i>Note from the Chair – John Wong</i></u>	4
<u><i>Meetings 2020 (January – April)</i></u>	6 - 9
1. PLATINUM - It's Mineralogy, Extraction and Applications by Dr Bruce Rimmer – <i>report by Zuzana Lednarova</i>	6
2. Early Career Geologist Award 2020 (Day of Finals) – <i>report by Rudy Domzalski</i>	8
3. HCNRG Workshop by John Wong: Location and distribution predictions of draa, megadunes, rhourds, and simple/complex/compound dunes in ancient and present day endorheic basins and exorheic basins. Endorheic desert lake formation and human settlements, and some unmapped desert archaeology – <i>reports by Kwame Ofori and Adam Dawson</i>	9
<u><i>Meetings 2019 (October – December)</i></u>	- 11 - 14
Emmer Green Chalk Mine Visit – <i>report by Karoly Pesztranszki and Zuzana Lednarova</i>	11
An introduction to Bedfordshire's Geology by Beverly Fowlston – <i>reports by John Wong and Henrietta Flynn</i>	12
Geology Quiz Night – <i>report by Mick McCullough</i>	13
HCNRRG workshop by John Wong: Behind-the-scenes workshop at Angela Marmot Centre in the Natural History Museum, London 'Impactites and Shock Metamorphism Mineral specimens' - hosted/fascinated by Robin Hansen and Austin Woodbridge – <i>report by Zuzana Lednarova</i>	14
<u><i>Future Meetings of the Home Counties North Regional Group 2020</i></u>	15
Future Venue Areas	15
COVID-19 Update: Postponing of Future Meetings	15
<u><i>Note from The Editor – Zuzana Lednarova</i></u>	16

Note from the Chair – John Wong.

Hello HCNRG members,

On this relatively quiet Easter weekend in the unprecedented time of corona virus, my best wishes to all of you and your families, keep well and stay safe.

Unfortunately, this year's AGM, which was planned for April, has had to be postponed until government guidelines permit group meetings to take place again. The HCNRG lectures arranged for April and May 2020 are also cancelled but we hope to rearrange these for later in the year.

I am pleased to report that HCNRG have had a successful 2019 in delivering evening lectures (with external speakers and HCNRG member speaker), field meetings, daytime workshops, and a geoscience quiz evening.

My profound thanks go to the dedicated and supportive HCNRG Committee members and also to all the HCNRG members supporting the HCNRG events to date.

At the 2019 AGM I pointed out that the HCNRG Committee have no reservations in engaging with our members; it is our duty and obligation to find out and deliver what the committee can do for the members not to ask what the members can do for the committee as a precondition. Over the past years, the majority of HCNRG lectures have been held in the historical core area venues of central Hertfordshire (St Albans, Hatfield, Hemel Hempstead), plus Brunel University in Uxbridge, Open University in Milton Keynes, and Burlington House in London.

I said at the 2019 AGM that we would look for new lecture venues gradually and especially away from the historical core area in order to benefit more HCNRG members as well as lessen our dependence on a very small number of venue choices. Last year we delivered evening lectures at the University of Hertfordshire and at Husborne Crawley in north Bedfordshire for the first time. At the Husborne Crawley venue, we had a large turnout with predominantly members living in Northamptonshire and Bedfordshire (first time for many of these members attending HCNRG lectures); members also travelled from east and north London, western Buckinghamshire, and northeast Hertfordshire for an interesting lecture on 'An Introduction to the Geology of Bedfordshire' and to meet members of the HCNRG.

The February 2020 lecture held in Harpenden saw a record number of members come from Harpenden, with others travelling from Luton (by train), from Central Bedfordshire District, and from London. Again, it was the first time for many of these members attending a HCNRG lecture.

The lectures arranged for April 2020 lecture in Ware, Eastern Hertfordshire and May 2020 in High Wycombe, west Buckinghamshire have been postponed to later in the year (hopefully). Other possible new lecture venues in Northamptonshire, east and north London, and western Essex are being examined.

Some of you may heard about I intended to lead a one-day field trip to Mersea Island by coach in the spring of this year but this has also had to be postponed.

Both the field meeting to the Emmer Green chalk mine and the behind-the-scenes tour and workshop on Impactites at the Natural History Museum in 2019 were oversubscribed. I have discussed with my contacts at both establishments to arrange second visits, hopefully these will take place in the early autumn of this year.

My big thank you to RSK/Director Jon Bailey and Soil Consultants/ Director Stuart Wagstaff for their generous sponsorships to the HCNRG, grateful appreciated.

My big thank you also go to Dr Ilias Karapanos and Affinity Water Limited for hosting the 2019 HCNRG AGM, with lots of food and drinks, and his extensive and informative lecture; Dr Timothy

Sands and University of Hertfordshire for hosting two HCNRG lectures and providing refreshments and nice cakes; Director Jonathan Bailey and RSK for hosting a HCNRG lecture with refreshments and also nice biscuits. Last and not least, my thank you to the Geological Society for providing lecture as well as workshops venue at Burlington House.

It is a great pleasure and privilege to me to serve the HCNRG members in sharing my knowledge in geology by leading 24 non-repeated HCNRG field trips and workshops from 2014 to date, I am touched by the support of many HCNRG members and my big thank you to all the HCNRG members retrospectively who have written excellent reports of the field trips I led. They are in chronological order as follow–

In Newsletter issue 2 -

Dr David Brook OBE, Paul Garner

In Newsletter issue 3 –

Dr David Brook OBE, Tom Powell, Mick McCullough

In Newsletter issue 4 –

Mick McCullough, Dr David Brook OBE (two reports), Richard Trounson, Andy Tyler (two reports)

In Newsletter issue 5 –

Richard Trounson, Dr David Brook OBE (three reports)

In Newsletter issue 6 –

Matthew Rust, Mick McCullough, Stuart Wagstaff (two reports)

I am delighted to report to you that the Regional Groups Committee Service Recognition Certificate awarded to Dr David Brook OBE was approved by the then Vice President for Regional Groups in autumn 2018. The certificate was produced at Burlington House and signed by Nick Rogers the President and Richard Hughes the Executive Secretary; Dr David Brook was not at the HCNRG 2019 AGM, the Certificate has been posted to Dr Brook soon after the AGM.

Zuzana Lednarova, who was co-opted onto the HCNRG Committee in the summer of 2019, has kindly agreed to be the HCNRG Newsletter Editor; she will be relocated to a new job in the west country in the latter part of April 2020 and I wish her every success in her career and my big thank you to her for being a supportive, resourceful and committed committee member.

My thanks also go to all the contributors assisting Zuzana with this newsletter. Of course, a very very special thank you to Zuzana for producing this newsletter.

I would also thank Dr David Brook OBE (former elected Chair of HCNRG), for your continued encouragement to me and your support to the HCNRG, which is gratefully appreciated.

Finally, I urge HCNRG members to take care and stay safe and I wish you all good health, and every success in your career and things you do.

John Wong

Meetings of the Home Counties North Regional Group (January – April 2020)

1. Lecture by Dr Bruce Rimmer

PLATINUM - It's Mineralogy, Extraction and Applications

Harpenden Town Council Park Hall

19th February 2020



Figure 1: Photo of Dr. Bruce Rimmer

A lecture focused on platinum group elements was delivered by Dr. Bruce Rimmer in a community hall in Harpenden. The lecture focused on the rare metal, platinum. Dr. Rimmer had previously worked at a Canadian multinational company involved in the mining and extraction of nickel, copper and precious metals. His early career was spent developing new refining processes and he later moved on to operations and business management and headed up within the precious metal refinery at Inco. The lecture is summarised below.

The platinum group elements (PGE) represent six precious metallic elements located in the d-block of the periodic table. They comprise the chalcophile elements osmium, iridium, ruthenium, rhodium, platinum, and palladium. The PGE can be further subdivided into iridium-group PGE (IPGEs: Os, Ir, Ru), and palladium-group PGE (PPGEs: Rh, Pt, Pd) based on their behaviour during geological processes such as melting and crystallisation. The PGE are valuable commodities due to their applications in modern technology.

Two world famous platinum sources (mines) were covered in the lecture; the Bushveld Complex of Africa, and the Sudbury Igneous Complex of Canada. Additionally, the lecture covered how PGE concentrate in Earth's crust, as well as the extraction and refining processes required to achieve the highest metal grade.

Firstly, the series of geological processes responsible for the presence of concentrated PGE at Earth's surface was outlined. Mineral deposits rich in PGE occur in different geological settings and often possess a diverse assemblage of platinum group minerals or PGM. Most commonly, PGE are associated with mafic and ultramafic rocks. When a mafic-ultramafic magma becomes saturated in sulphur during differentiation and/or contamination, it attains sulphide saturation, whereby droplets of immiscible sulphide melt segregate. Due to their chalcophile behaviour, the PGE partition into the sulphide droplets, which may then concentrate to form a PGE-enriched ore deposit. Thus, PGM are found amongst common sulphide minerals including pyrrhotite, pentlandite (nickel ore), chalcopyrite (copper ore), and pyrite.

The first discovery of platinum in the Bushveld Complex was recorded in 1923. In 1925, the commercial production of platinum had begun. The Bushveld Complex is the largest layered mafic intrusion in the world. Throughout geological time, tilting and erosion of the area, the outcrops of the Transvaal Basin have been exposed - which have been dated at approximately 2.65–2.05 Ga (Neoproterozoic–Palaeoproterozoic). The complex is host to three world-class PGE layers or 'reefs', including the Platreef, the UG2 Reef, and the Merensky Reef, which combined contain approximately 90% of the world's known PGE reserves. The thickness portion of the Merensky Reef is between 30 to 100 cm. In addition to these platinum and palladium rich PGE reefs, the Bushveld Complex also

contains the world's largest reserves of osmium, iridium, rhodium, and ruthenium, as well as iron, tin, chromium, titanium, and vanadium.

The second PGE deposit discussed was the Sudbury Igneous Complex in Ontario, Canada. The complex is ~ 62 km in length, 30 km wide, and 15 km deep. The complex is thought to represent a meteorite impact that occurred ~ 1.85 billion years ago in the Palaeoproterozoic era, making it the third largest and one of the oldest known impact craters on Earth. When the meteorite collided with the ground, the large impact crater filled with magma containing nickel, copper, PGE, gold, and other metals. Platinum was discovered in the Sudbury district in 1885 and large-scale commercial production from this nickel-copper mine began in 1919.



Figure 2: Sample of a polished ultramafic host rock containing PGM, as brought in by Dr Rimmer.

Other significant sources of world PGE production are the Norilsk-Talnakh nickel mines in Russia and the Stillwater project in USA.

The processes of extraction of PGE from mined sulphide ores was also described by Dr. Rimmer. Mined ore is crushed and subjected to froth flotation to separate the sulphide minerals from rejected tailings. The mixed base metal-PGE sulphides are concentrated to a matte in a smelting furnace, which is leached to remove the base metals. Finally the individual PGE are separated in high purity by a complex series of hydrometallurgical stages. The extraction of platinum and palladium is an expensive and labour-intensive process. Therefore, only ores sufficiently enriched in PGE can be economically mined.

Platinum and palladium have unique catalytic properties and find application in automobile exhausts, fuel cells, and for many chemical and pharmaceutical products.

Also demand for platinum is growing in the medical industry, where it is used in pacemakers, aural and retinal implants, and anti-cancer properties in drugs.

Market prices for individual PGEs' are high and can vary according to demand. Although there are ample reserves of PGE, principally in South Africa, the long processing times mean that supply cannot always match demand.

I would like to give my thanks to Dr Rimmer for presenting such an interesting lecture, and for proofreading this report.

Report by Zuzana Lednarova

2. Early Career Geologist Award 2020

Burlington House, London

20th February 2020 (Day of Finals)

This event is to recognise the work of Early Career Geologists with less than 10 years' experience. Once an email is sent out inviting participants, there is a Regional Heat to select the finalist who will represent our region at Burlington House. It is a good opportunity for Early Career Geologists to showcase their work, network with fellow geoscientists and practice presenting as well as public speaking.

In 2020 the Home Counties North Regional Group was contacted by Oliver Dabson to enter the competition. Oliver has previously won the President's Award from the Geological Society and has presented in conferences around the world as well as writing several papers.

The Home Counties North Regional Group want to thank RSK for hosting the regional heat on the 16th January in their office in Hemel Hempstead. We are very grateful for the support RSK has given to events such as these. In the regional heat, Oliver Dabson gave us a great presentation, on the work he did with LiDAR (the abstract of his presentation can be found underneath).

Oliver went through to the Finals at Burlington House which was held on the 20th February. Unfortunately, he wasn't awarded as the winner, however he did brilliantly well as stated by three judges.

A copy of the original abstract Oliver Dabson sent me in order to participate in the ECGA is below:

Eye in the sky: using advanced aerial datasets in the assessment of coastal cliff geohazards in Dawlish, UK

The last few years have seen the widespread commercial availability of aerial datasets such as LiDAR and Unmanned Aerial Systems (UAS). Combining of these data can produce 3D models with centimetric resolution and accuracy for sites covering several square kilometres. The geo-engineering community has been exploring the use of these systems for collecting data in environments where it may be hazardous or impossible to use more conventional means. Advantages have already been identified, which include cost, ease of survey in terms of access, rapid acquisition of data and repeatability, and reduction in the number of personnel directly exposed to geological hazards during site visits. As such, the tools continue to be an exciting resource to explore.

At Dawlish, UK, weathering and erosion of the sea cliffs has resulted in numerous serious slope failures, with some notable examples over the last decade which were the focus of national media attention. This poses significant risk to Network Rail's Western Route: a stretch of rail engineered by Brunel in 1840, situated at the foot of these cliffs. CH2M was commissioned by Network Rail to explore options for improving the resilience of the line, but vegetation and access constraints meant that sections of the cliff were difficult or impossible to access during site visits. As such, this paper describes the use of aerial datasets to capture and assess this system. We find that the technology offers new insight to the site, allowing for finer-resolution mapping and interpretation of sub-vertical and heavily vegetated cliffs. This has been an important tool in a wider assessment of the site, and the survey has supplemented recommendations on how to best manage the coastal asset in order to ensure the operation of a safe and reliable railway.

3. HCNRG Workshop with John Wong: Location and distribution predictions of draa, megadunes, rhoursds, and simple/complex/compound dunes in ancient and present day endorheic basins and exorheic basins.

Endorheic desert lake formation and human settlements, and some unmapped desert archaeology.

Burlington House, London

4th March 2020

Report by Kwame Ofori - Dunes Workshop, 4th March 2020

As part of the Home Counties North Regional Group varied programme of geology related activities and events, John Wong ran a workshop on Dunes during 4th March at the Geological Society offices at Burlington House.

The workshop delineated global desert locations as generally between latitudes 10 to 30 degrees either side of the equator and cover between 20 and 25 per cent of the world surface. There are a variety of dunes in deserts with varying slip faces or none, but generally conditioned by the prevailing wind directions. Barchans, barchanoids and transverse dunes have single slipfaces and are formed by the influence of unidirectional wind. There are others, like parabolic and blowout dunes also formed by unidirectional wind but influenced by some vegetation. Other dunes, such as dome dunes, star dunes, and lineal dunes are affected by multi wind direction, some seasonal but can be more frequent. We worked through how the usually, texturally mature, well sorted and rounded sands saltate by wind power in the process of dune formation. The common types, the barchans and balchanoids have gently sloping windward side, with a crescent shape in the opposite direction.

John had prepared very well, with volumes of sample papers and aerial photographs of some of the major desert dunes such as those of the Badain Jaran Desert of north China and the Namib of southwest Africa.

We were made aware that deserts are associated with occasional rainfalls. Such rain can be torrential and lead to flash flooding. However, in most cases, these waters do not run into oceans but into inland water basins called Endorheic Basins. Such basins may be sources of evaporate minerals.

In the course of the workshop, we also learned of a prevailing desert environment during the Permian in Britain, resulting in major seif draa which covered the North East of the country. We learned that they lay uncomformably with the carboniferous coal measures in County Durham and the North.

To round off the day, John had arranged for a tour of The Geological Society Library conducted by the chief librarian. Not only were we shown the visible library and its contents and the Fellows reading room, but we were also taken through to the maps room, where copies of all the geological maps are kept.

Review by Adam Dawson

I have to admit that until recently, I was one of those people who couldn't tell the difference between a barchan and a parabolic blowout, and definitely couldn't identify the main endorheic basins of remotest China.

But all that changed on 4th March this year, when I attended the "Dunes" workshop organised by John Wong at Burlington House. A good group of Home Counties North Regional Group members attended this half day event, where John talked us through the processes of dune formation, both in the geological past and in the present day. We were challenged to predict how factors including wind direction and strength, sand depth and vegetation could all affect dune morphology and chronology.

Dunes, it turns out, are not only important features of modern desert areas, but when overlain by subsequent sedimentary deposits, can become important host reservoirs for natural gas. The Rotliegende Formation in north east Britain is an excellent example of one such large scale dune structure, or draa.

The session finished with an exploration of the modern-day dune structures in the Tarim region of north western China. This large endorheic (i.e. having no outflow to the sea) basin, about the size of Germany, is highly desertified, though hosts a surprising number of oases, clearly visible in satellite imagery. The lakes form as trapped water flowing from surrounding mountain ranges emerges among the dunes, where it creates novel geological and ecological environments, unique in the world.

So all in all, a highly worthwhile afternoon, and I hope Home Counties North Regional Group will organise more like it in the future.

Oh, and by the way in case you were wondering, a barchan is a crescent-shaped dune with the "tails" heading downwind, whereas a "parabolic blowout" is like a barchan turned inside out, with the "arms" anchored upwind by vegetation.

2019 – Summary of Some Previous Meetings (October – December 2019)

Emmer Green Chalk Mine Visit

Emmer Green, Reading

19th October 2019



Figure 3: Inside the Emmer Green Chalk Mine – regular bands of flint are observed throughout the mine.

These chalk mines are located in Emmer Green, the northernmost suburb of Reading, forming vast underground tunnels situated approximately 20m underground.

The mine visit chief instructor gave a talk on the history of the mine, John Wong gave an introduction on the local geology bedrock and superficial deposits, and he handed out a set of five coloured geology maps to the HCNRG participants.

Everyone who had a chance to visit was lowered into the mine through a rope and a harness. To exit the mine, the group had to climb out using the ladder – one by one.

The chalk mines are within the Seaford Chalk Formation (Upper Cretaceous in age), which is overlain by the Lambeth Group. Walking around the mines, geological faults and evidence of displacement was observed within the bedding and the presence of slickensides. As well as this being a geologically wonderful trip, we have also learnt that these mines were used by British soldiers during World War II (WWII) as underground bunkers where they hid. This is evidenced by the presence of old newspapers, diaries, and memorabilia dated from



Figure 4: Published extracts dated from WWII found within the vast tunnels of the mine.

WWII. The visit to the Emmer Green Chalk Mine was definitely a very exciting and insightful day.

There was a large interest within the members of the HCNRG, however the number of attendees had to be limited due to the nature of the event. As the event was oversubscribed, it has been agreed by the committee that a further visit to the mine will be arranged in the future.

Report by Karoly Pesztranszki and Zuzana Lednarova



Figure 5: Slickensides observed on the left chalk block.



Figure 6: A fault line observed within the mine. Displacement can be seen in the offset of the flint band.

Lecture by Beverley Fowlston MSc FGS

An introduction to Bedfordshire's Geology

Husborne Crawley Reading Room, Husborne Crawley, Bedfordshire

Wednesday 13th November 2019

Beverley Fowlston is an amateur geologist with an interest in all Earth Sciences. She has worked for Bedfordshire Geology Group since it began in 2004 and having lived in Bedfordshire for all but the 3 years she was at University, she has gained good level of local geological knowledge which she would like to pass on to others. She gained her BSc at Durham University and her MSc at The Open University.

This presentation gave an overview of Bedfordshire's geology from the Jurassic to the Cretaceous with a look at how Bedfordshire's geology has shaped not just it's landscape but it's people and habitats. Also, included were the work of Bedfordshire Geology Group and how this small band of volunteers is showing the people of Bedfordshire what a wonderful and varied landscape is right on their doorstep. Husborne Crawley is a new HCNRG lecture venue, we have HCNRG members travelled to attend this lecture from Amersham, Bedford, Harpenden, High Wycombe, Hitchin, Luton, Milton Keynes, Northampton, Towcester, Watford, and Isle of Dogs area in east London.

Beverley's lecture was very informative and entertaining, the display of Bedfordshire local fossil and rock specimens were excellent, our members took home leaflets promoting the geology of Bedfordshire published by the BGG. We all felt very welcoming and enjoyed the hospitality of the Bedfordshire Geology Group members, not to mention there were plenty serving of refreshments and exchanging ample of valuable geology information.

Below is an article taken from the Bedfordshire Geology Group Autumn Newsletter November 2019.

Report by John Wong

BGG talk to the Geological Society

Wednesday November 13th 2019

By Henrietta Flynn (BGG Newsletter Editor)

We had an excellent turnout of around 25 Geological Society members at our BGG talk on the Geology of Bedfordshire, given by Bev Fowlston. We assembled at the Husborne Crawley Reading Rooms with the GS members coming from the Home Counties North Region Group (HCNRG) which stretches from north of the Thames to Northamptonshire. The Geological Society is the oldest national geological society in the world with more than 12,000 Fellows and has its HQ in Burlington House, Piccadilly. The Home Counties North Region arranges talks and field trips organised by John Wong throughout this area. Bev's talk started with a general discussion of our major rock types and their distribution through the county. She gave an excellent presentation on how the geology has brought about the development of different industries from brick building and the coprolite industry to the bell pit mining of Fullers Earth. Bev talked extensively about the Greensand Ridge and informed the audience of BGG's considerable contribution to GCLP projects, showing them slides of the disability access facilities at Potton and the cleared exposures of sandstone faces at the RSPB sites at Sandy Warren Lodge Quarry. BGG displayed the full geological range of rocks exposed in our county, many of which stimulated interesting discussions amongst the group. We also distributed many of our publications and received very positive feedback from the GS members, many of whom come from academic backgrounds. John Wong brought along a near banquet of food, much appreciated by those who'd travelled a distance to get there. This was complimented by refreshments supplied by BGG volunteers.

Geology Quiz Night

Verulamium Museum, St Albans

6th December 2019

Held on Friday 6th December 2019 at the Verulamium museum in St Albans. Now in its third year, it was moved to a Friday and a later start time of 8.00 pm to see if a delayed start could attract a higher turnout, particularly as it was nearing Christmas and would be vying with other events. As the turnout was three teams, slightly better than previous years, it could be counted a success but the low numbers attending HCNRG events are still a worry.

The quiz comprises 40 geology based questions covering geography, geology, geotechnics, mining, engineering geology and general science, often picking the correct answer from a choice of three.

About a half to three quarters of the way through the quiz there is a break, where free pizzas and soft drinks are dispensed and there is a chance for members to mingle and chat.

After finishing the quiz and collating the scores, the winners were announced. The prize for the winning team was a bottle of wine for each person on a team (maximum of 6 per team). This was followed by some fun, dingbat, festive season questions, which were very well received.

From the feedback, those attending the quiz felt the questions were set at a good standard and thoroughly enjoyed the night. It is hoped to run such events in forthcoming years.

Report by Mick McCullough

Behind-the-scenes workshop at Angela Marmot Centre in the Natural History Museum, London

‘Impactites and Shock Metamorphism Mineral specimens’ - hosted/fascinated by Robin Hansen and Austin Woodbridge

Wednesday 18th December 2019

‘Impact Craters of Africa’ was one of the double workshops facilitated and presented by John Wong in October 2019 at the Geological Society in Burlington House. John felt that a follow up behind-the-scenes visit to the Natural History Museum, South Kensington, London, to see the impacted rock specimens that have not been on display to the general public would benefit the interested Home Counties North Regional Group members.

This workshop was very successful at the Natural History Museum with the excellent supervisions of Robin Hansen and Austin Woodbridge, as it was highly oversubscribed, John Wong will arrange another visit to the Natural History Museum later in 2020 for the members of the HCNRG.

Information below is taken from the flyer of John Wong’s workshop on ‘Impact Craters of Africa’ presented on 2nd October 2019 -

‘Many impact craters have been identified in Africa. Caused by the collisions of large meteorites or comets with the Earth, examples have been found in Algeria, Botswana, Chad, Democratic Republic of Congo, Egypt, Libya, Mauritania, Morocco, Namibia and the Republic of South Africa. Some of these impact craters have been designated as UNESCO World Heritage Sites.

The geological age of the impact craters in Africa ranges from Paleoproterozoic to Recent, with the oldest at 2.023 billion years and the youngest less than 2000 years old. The largest exposed impact crater on Earth is Vredefort Crater (recognised in the late 1990’s) in the Republic of South Africa. With an estimated original rim diameter of 300 kilometres (190 miles), it exceeds that of the buried, end-Cretaceous, Chicxulub Crater in Mexico, which has a diameter of 180 kilometres (110 miles).

The workshop will include the examination of geological maps, space imagery and aerial photographs.

It is expected that this workshop will be followed later by a behind-the-scenes guided tour at the Natural History Museum in South Kensington, London, to see specimens of impactites, including specimens include impactites from Vredefort Crater. John is in the process of confirming a date for this visit.’

Report by Zuzana Lednarova

Future Meetings of the Home Counties North Regional Group 2020

Future Venue Areas

In 2019, the Committee have agreed that John Wong will take on an additional role as lecture coordinator to arrange all the lectures, and spread out the lecture venues to cover all regions of the Home Counties North area (instead of only focused predominantly within the Hertfordshire area as in the past five years). John Wong looks forward to arranging a variety of interesting lecture subjects to cover general geoscience as well as professional geoscience.

COVID-19 Update : Postponing of Future Meetings

Please take note that the lectures planned for April 2020 ("*Microbes to Marrows and More*", presented by Jane Tubb) at the Ware Museum, and the lecture for May 2020 ("*Alien Volcanoes of the Solar System*", presented by Dr Paul Olver) in High Wycombe are postponed due to current virus epidemic and in accordance with the government guidelines. Please keep an eye on your emails, and check out the HCNRG events page for the most up to date Programme of Meetings for 2020.

Additionally, due to the current circumstances (and since March 2020), HCNRG 2020 AGM is postponed to later in 2020 as agreed by the HCNRG Committee. The chosen date for the AGM will be advertised to the HCNRG members when this has been confirmed.

Note from The Editor

The group is pleased to issue out this mini newsletter report, which summarises 2020 so far, and to also give you a glimpse of some of the past exciting events hosted by the HCNRG. We would like to apologise for the gap since the last issue (6), and this current issue, but hope to maintain regular newsletter issues in the near future.

We are pleased that our members of the HCNRG are actively attending the meetings organized by the committee, and are showing such an interest in the variety of geological subjects covered. This year we had one of our members enter the Early Geologists Career Award 2020, who went through to the Finals hosted at Burlington House. We enjoy seeing this from our members, and encourage all of our members to take part in such events.

In addition to this, we encourage our members to provide us with feedback on seminars, and short summary reports of the meetings which you have attended. This newsletter contains a mixture of reports written by the committee, as well as our members of the HCNRG. Therefore, if you would like to include one of your summaries/report of a meeting in the future, please let us know. Please take note that these do not have to be long or too comprehensive.

However, it is with great regret that we have had to postpone our future planned meetings due to the current epidemic. Therefore, we will keep you updated in the mean time, following the government guidelines, and inform you of our planned future events.

During this time, my circumstances have also changed, which means that I will no longer be able to attend many of the future meetings organized by the HCNRG. I would like to use this opportunity to thank John Wong, and the committee for organizing such a great variety of events, and I hope to stay in touch with the group. Although I will not be able to attend and summarise future meetings, I have decided that I will stay on as the Newsletter Editor. Therefore, it would be very helpful if you could provide us with a short write up of the meetings you attend so that I can construct the newsletter – building it like a puzzle. Should you wish to have your report included in the next newsletter, please inform the Chair, John Wong, of your intentions, and forward your article to me on my personal email (z.lednarova@gmail.com).

As a closing note, thank you for taking the time to read the newsletter, and I hope to hear from you all in the future, keeping me updated with future meetings.

Zuzana Lednarova