ViPs NEWSLETTER

NO. 5: JULY 2021

WELCOME

Welcome to the fifth ViPs newsletter. ViPs is now a little over one year old!

As the academic year of 2020-2021 comes to an end we have taken the opportunity reflect on the structure and organisation of ViPs, and report on a range of activities and initiatives. This edition contains updates, 'offers' and additional features.

Importantly we are also going to move over to a JISC mailing list and therefore you will be required to sign up to ViPs to stay involved, keep up to date and enjoy future editions of the newsletter. **More details to follow.**

We hope you enjoy this bumper summer edition!

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VIPS STRUCTURE UPDATE

Following discussions at the ViPs workshop in June and at the Coordinating Group, we have decided to revise the structure of the ViPs project. There will now be three working groups:

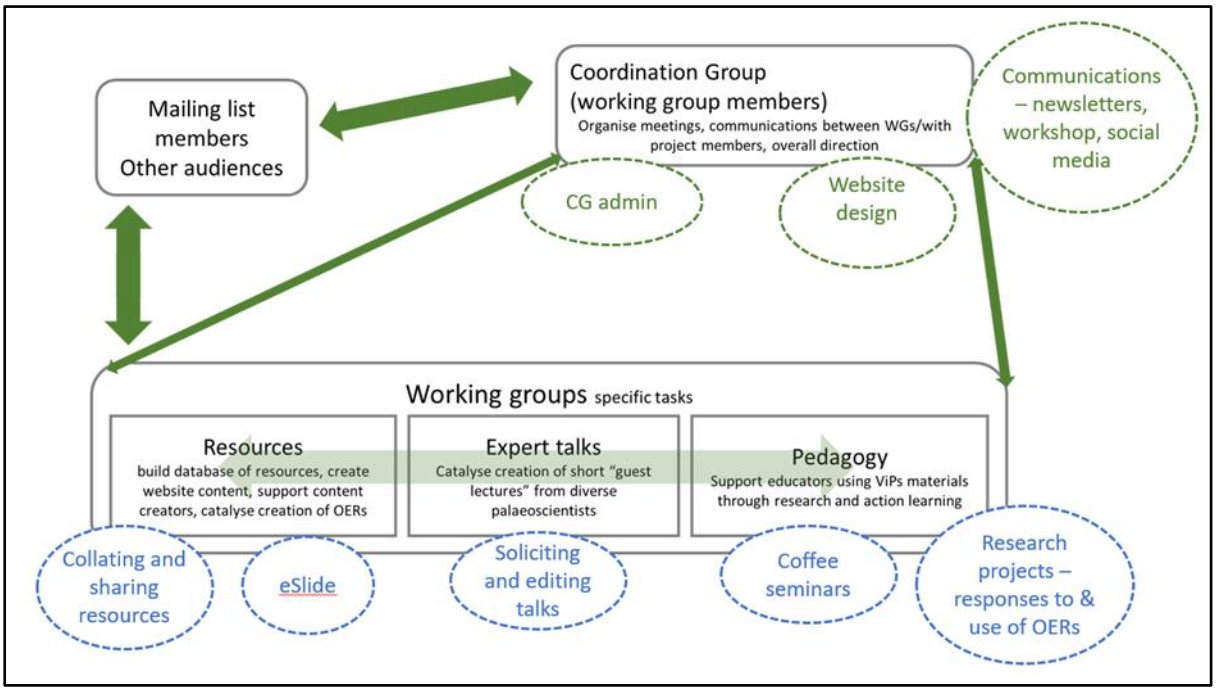
1. **RESOURCES** (current coordinator – Liz Hurrell) focuses on collating existing resources, writing content for the website, supporting content creators and catalysing the creation of online resources particularly for fieldwork and practical work.

2. **EXPERT TALKS** (current coordinator – Danni Pearce) focuses on supporting the recording of short video talks from a wide range of palaeoscientists.

3. **PEDAGOGY** (current coordinator – Karen Bacon) focuses on supporting the use of ViPs materials and on leading research into learning and pedagogies in the palaeosciences.

The **COORDINATING GROUP** (current coordinator – Jane Bunting, membership = all working group active members) exists to coordinate cross-ViPs activities such as designing and maintaining the website, editing and sending out newsletters, ensuring ViPs is represented at various research meetings and running workshops, along with all other aspects of communicating with a wider audience beyond the active working group members.

Elsewhere in this newsletter you will find lots of information about different ways to get involved, either as one-off contributions to projects or by taking on a specific project or role and joining a working group.



Revised structure of the ViPs project. Rectangular boxes indicate ongoing groups, dashed circles indicate projects (not all current projects are shown for brevity).

WAYS TO GET INVOLVED WITH VIPS

There are several ways to get involved with ViPs – read on to find out more:

USER: join our mailing list to get a newsletter every three months, find out about workshops and coffee morning seminars. You will also receive notifications as soon as updates to the resources spreadsheet are released. We really like hearing from users through our surveys, seminars and workshops – it's good to hear how ViPs is being used and what the community needs.

CONTRIBUTOR: on top of user activities, contributors can share resources as they create them (either permanent links or as inspiration – see our contribution request elsewhere in this newsletter), offer to lead at a coffee morning seminar or respond to calls for one-off things like recording an expert talk (see below), or contributing to the *e*Slide resource (see call below).

WORKING GROUP MEMBER: working group members join ViPs for a longer period, planning to work consistently with others in a working group and contributing to one or more projects.

With ViPs now a year old, and our move to a new mailing list, this is a good time to review the membership of our various working groups and projects. We would love to have more

active participants so that we can both get on faster with current projects and add more projects to the year's plans. If you are interested in taking an active role in developing resources, pedagogy, short talks or other areas of the project, please get in touch with the relevant working group. This is also a good time to take stock of existing commitments - if you are currently a member of a working group, but are not really able to spare the time for meetings and actively contributing to a project or projects, or want to leave one project and move to another, now would be a good time to step back (and cut down on the number of emails you receive from ViPs) or to change your role. Please get in contact with the relevant working group coordinator or the core group coordinator to discuss your involvement!

Please remember that we very much aspire to be an open, welcoming community – if you're not actively teaching palaeosciences, but your role involves supporting undergraduate or taught post-graduate students through technical training, short courses, demonstrating or GTA-ing, you hope to be more involved in palaeoscience teaching later in your career, or you just have an interest in outreach and sharing your knowledge of the palaeosciences, we would love for you to contribute!

Here's a list of current projects and project ideas (which currently lack champions so someone wanting to get more involved might like to adopt one of those projects):

Current projects

Website redesign: includes a new community section, improving the public facing section, and building in a web-based search tool to make it much easier to use the resource database. Project led by Des and Danni, thanks to the QRA for funding to allow us to buy the professional form of WordPress. This project group is complete for the moment.

Pedagogic research: we currently have a project underway looking at how academics responded to the pivot online, and other projects planned. If anyone is interested in developing a new project, finding partners for a project idea, offering to lead a coffee morning seminar, or just interested in joining a "community of practice" group in palaeoscience pedagogy for the next academic year, contact the Pedagogy Working Group via Karen Bacon (karen.bacon@nuigalway.ie).

Collating existing resources: we continue to add existing resources to the master spreadsheet as we find them – searching for resources in specific gap areas, checking links, providing academic-viewpoint reviews of resources, and pushing more releases of new versions of the resource spreadsheet are all necessary tasks which are not a huge time commitment, but do need to be done regularly. This is also a space where **work experience** projects for students can be easily defined

Project ideas

We have lots of ideas which don't currently have a champion, but have been suggested at ViPs meeting. We would love to welcome new, active members who are able to contribute

a little time to get some of these projects moving, or existing projects moving faster - or to get other ideas we haven't thought of going. Here are a few of those things!

i) a **photo gallery** of CC licensed palaeo-related images - needs someone to choose the platform (Wikimedia? Flickr?), set it up, and solicit material. Contact the Resource working group if interested.

ii) a **"toolshed" - web site sectio**n listing a wide range of free/cheap online teaching tools where people could add reviews, tips, examples, offer to chat etc. - needs caretakers to set it up, keep it tidy, and encourage contributions. Contact the Resource working group if interested.

iii) collecting **biographies of diverse palaeoscientists** as short videos, autobiographical or interview blog posts etc. Contact the Expert Talks or Resources working groups if interested.

iv) setting up a semi-regular **blog within the ViPs website** with contributions from meeting reports, think pieces and feeding into social media would be a way to help build the ViPs profile. Contact the Expert Talks or Coordination groups if interested.

Get in touch if you can adopt a project idea and get involved in ViPs – we need your support!

INVITATION TO SHARE RESOURCES

Many of us will have written new teaching resources this year as part of surviving blended/online learning; want to share these resources with others through ViPs?

There are two mechanisms for sharing materials – if you have produced a **resource which you consider finished** and which you would like to share more widely - a video of lab processes or a seminar you gave, a virtual field visit, an online activity – then we would be delighted to either add your link to the ViPs catalogue or to host the material on the ViPs website as well as list it. Please fill out our form here:

https://wordpress.com/page/virtualpalaeoscience.wordpress.com/370

or email m.j.bunting@hull.ac.uk

If you have produced less polished materials, but think they could still be valuable to others, as a starting point or as inspiration for options with their own content (haven't we all found ourselves too stressed to be creative at different points this year?), then we also have a **community sharing space.** This is a secure folder on box at the University of Hull – there is an Excel sheet for contributors to add notes about materials, and all sorts of materials can be shared. If you'd like to add material, please email m.j.bunting@hull.ac.uk and I will give

you editorial and uploading rights on the folder. You can view and download the couple of items that are in there now at this link:

https://universityofhull.box.com/s/rafafmn4b9bks9so51dbgbsidhvh967m

LOOKING FOR COVID-SAFE WORK EXPERIENCE PROJECTS FOR UNDERGRADS?

Our current resource spreadsheet was quality checked and student-view reviews were added by undergraduates on intern schemes. Subsequently, a work experience student has helped the website redesign project. Within the scope of current ViPs projects, there are a wider variety of administrative, writing and content creation activities which could be packaged up for students needing work experience for a module. For example, from working at a microscope to collect images for eSlide to fully remote activities from their own computers writing reviews, conducting and writing up interviews about palaeoscience careers or researching the biography and back catalogue of a palaeoscientist.

ViPs is a multi-institution project, so work experience students can be assigned an external "client" from a different university to work with on their project, and also attend coordinating group and/or working group meetings as appropriate, so that they get a more varied experience than they would if they just did a task for an academic in their own department.

To discuss this option further, contact Jane Bunting (m.j.bunting@hull.ac.uk) or Liz Hurrell (EHurrell@uclan.ac.uk) to discuss the options.

*e*SLIDE NEEDS YOUR HELP!

***e*Slide is an online tool for microfossil identification and virtual microscopy whose development provides a key ViPs resource.**

This year we have used it to teach online pollen and foraminifera practicals using a range of case studies:

- an interglacial sequence
- vegetation change associated with crannog occupation in Scotland
- pre- and post-colonial vegetation transition in southern Australia
- sea-level change in NE England.

Now *e*Slide needs your help in a number of ways:

First, we need people to help develop additional case studies using *e*Slide's existing pollen and foraminfera images.

Second, we need people to help generate images and case studies for other proxies (e.g., diatoms, ostracodes).

Third, we hope to write a short paper on *e*Slide and its use in the virtual classroom for a special edition of *Frontiers in Ecology & Evolution* on teaching palaeoscience. For this we need to know how *e*Slide is being used in the classroom to improve our understanding of how students interact with *e*Slide.

If you can help to develop *e*Slide, contribute material, want to contribute to the paper then please contact: Stephen.Juggins@ncl.ac.uk or M.J.Bunting@hull.ac.uk

VIPS COFFEE MORNINGS: SUMMING UP THE YEAR TEACHING (MORE OR LESS) ONLINE

These events have run throughout the year as short meeting to share virtual teaching experiences, swap ideas for online techniques or just to get things off your chest!

Eileen Tisdall (University of Stirling) has pulled together this collection of reflections from the final meeting this academic year.

In the final Coffee Morning of the academic year was a moment to look back at what we had all achieved in this year of all years. There was a wide-ranging discussion around the positives from the year, but also time was spent thinking about some of the longer-term concerns. These concerns ranged from lack of student engagement, which became more evident over the year and how to maintain some form of community online especially in group work. There were concerns about the amount of time students did or did not spend working through online resources and the balance between providing enough resources and overwhelming students. Many felt that the expectation in a number of institutions that all teaching could be delivered in small 10 minute or less chunks would not help the development of skills required for students to progress as independent and lifelong learners.

On the other hand, the necessity of moving everything online meant that many took this unexpected opportunity to review their teaching, to reflect on what was being taught and how. It was recognised that, with many using new technologies and online methods of delivery for the first time, there were going to be glitches (but not as many as was initially feared!). On reflection many felt that, although occasionally painful, this review was worth it, giving a greater confidence to be more critical and to change what was not working. There were also some positive thoughts around the idea that, with a greater variety of teaching methods and not being tied to timeslots regimented as 50 minutes, there was room to be more creative and flexible in how content and skills were delivered. It was also a chance to think about how important face to face teaching is and how this time can be maximised, perhaps not 'wasted' in the normal lecture format. Importantly, there was a

recognition that the use of online materials across all teaching had led to noticeably increased inclusivity for students who would normally struggle to engage.

There was also the necessity redesign many 'traditional' assignments in particular exams, with a move to more authentic and work real assignments. Many felt that the move to online 'take at home exams' or seen papers still needs more careful thought, but that, on balance, this was considered to be a positive outcome.

The move to field and lab teaching online led to some very creative resources being developed. Again, for many there was a concern that, with the rapid adaptation of new technology, although impressive, there were elements missing which meant it was the same as *actual* field and lab teaching. Planning, with timed events as if a day out in the field or a lab session and setting small completable tasks was successful in maintaining engagement and prevented students from being overwhelmed. However, some felt that there needed to be more management of expectations around what could be achieved with the technology available to most teaching staff; often simpler was better! However, amongst everyone there was a real desire to keep these newly created resources, these would be redeveloped (to improve the quality), split the resources into smaller tasks/skills, used as resources to prepare students before they go into the field/lab or to support consolidation and progression of skills post field and lab work. The amount of discussion around this aspect of online teaching, and how to keep it, is something I think we will return to!

VIPS GUEST LECTURES – VISIT THE COLLECTION AND CONTRIBUTE

Danni Pearce (WG4) has put together some examples from of this growing collection:

Visit our YouTube channel: Virtual Palaeosciences

This is a resource that has frequently been requested. **However, we need your contributions as five to15 min talks!**

Videos can be on a particular technique or your own research area. In particular, we would love to hear from you if you could contribute aeolian and glacial topics, or modelling with geological proxies – but all topics are welcome!

Examples:

- **Dr Stefan Engels on Chironomids**

https://www.youtube.com/watch?v=b93fH4E0DUo

- **Professor Alessio Rovere**, database of interglacial sea level proxies. He gave an excellent EGU talk and allowed ViPS to include it on our YT channel.

https://www.youtube.com/watch?v=J0sWgTitokQ

- **Drs Matt Finkenbinder and Jonathan Dean on Lakes and isotopes**

https://www.youtube.com/watch?v=8dSqKlY4_sM

https://www.youtube.com/watch?v=z0YjZLz1xlY

Get in touch with Danni for further information, to get your video uploaded and start sharing your expertise at danni.pearce@nmbu.no

SPECIAL FEATURE: HOW TO CREATE A VIRTUAL (GEOGRAPHY) FIELDCOURSE

Peter Morgan (Laboratory Manager) in Geography and Environmental Science at the University of Southampton reflects on the challenges the pandemic has caused us all.

One of the biggest in our BSc Geography teaching at Southampton was how to give students the fieldwork tuition that is a core element of the course, and integral to the subject. Indeed, we began to wonder if there would be enough letters in the alphabet for the various versions of our plan necessitated by the ever-changing situation and guidance. Given the dynamic situation we decided only a virtual fieldcourse would give us something that was deliverable under any lockdown scenario and so we put our resources into developing one.

Normally we take our second-year students to Tenerife, but we quickly realised we didn't have sufficient data from project work there for students to work on remotely. Somewhere we did have a wealth of data for was Namibia, where course convenor Dr Jo Nield has done extensive fieldwork. Looks like a plan!

With the support of colleagues around the world interested in drylands, and willing to share their data, photographs and videos, and to provide guest lectures and talks we were able to build our course content. The course consisted of a virtual trip with 360-degree panoramas at several sites in Namibia. This was supported by synchronous and asynchronous online sessions, with lectures and group work. Latterly we were able to offer some face to face tuition in field techniques on campus as restrictions eased. We even attempted to create the social interaction opportunities often enjoyed in fieldwork with a virtual safari and Namibia Quiz.

One key challenge to teaching virtually was gauging how well the students were able to engage with the online asynchronous materials as the course progressed. Thankfully the quality of their coursework now suggests that engagement was good and the teaching materials provided allowed our students to obtain the programme learning outcomes. Student feedback was also positive:

"I loved this module, the content was really interesting and the Namibian landscape made it better as it's so different from anywhere I've been before."

"I liked how interactive it was. I could really get a feel for the landscape. I also have a much greater idea of how different projects are planned and undertaken, and how certain equipment is used."

"Thank you so much for all the effort put into this module. I thoroughly enjoyed it and was a great substitution for real fieldwork."

Course convenor Jo Nield and colleagues have created this "the making of" video to explain and reflect on our work, as we think ahead to what might be possible in the next academic year.

INTEGRATED QUATERNARY GEOCHRONOLOGY FACILITY – A FOLLOW UP TO THE RECENT STOP PRESS

You may have recently received a 'Stop the Press' from regarding a statement of community support to the Natural Environments Research Council (NERC). I wanted to say many thanks to you for a fantastic response to this. I also wanted to add some context and lay out possible future options.

Simon Blockley, Centre for Quaternary Research, Geography RHUL,
simon.blockley@rhul.ac.uk

The 'Stop the Press' came from me as part of attempt by myself and colleagues in several institutions to survey the potential for support across the wider palaeo community for an improved chronological service. Our vision to NERC was an integrated facility providing Quaternary Geochronology across multiple laboratories, with central coordination. NERC has for many decades recognised the importance of dating and supports services covering most isotope decay methods (e.g., 14C, U-series, Ar/Ar), but these only date very specific sites. While I recognise fully that it is great that there is support for these particular isotope-based techniques, there are a number of reasons why we hope we can find ways of adding to the provision. The first reason is that while really important, these techniques only cover specific time-windows and are only suitable for certain types of record. For example if you work on very recent lake records to understand aspects of the Anthropocene, or arid environments, or archaeological sites older than ~50,000 BP. This, secondly, means that if you work in these areas it can be difficult to prime new grants or if you are an ECR to develop your project.

Recent advances in geochronology are now critical in many areas from archaeology to marine, terrestrial and freshwater science. These involve dating using: (a) isotopic dating methods (^{210}Pb, ^{137}Cs) for young sediments; (b) Luminescence dating of in the time range ~10 years to ~500,000 years; (c) analyses of annual layers in tree rings and lake varves; (d) palaeomagnetic records from marine and terrestrial archives, that allow correlation with dated polarity reversals, geomagnetic excursions, and palaeointensity and palaeosecular

variations; (e) tephrochronology, and cryptotephra, for dating and correlation of sediments across all time frames above. I find these tools very exciting, both for dating different records, but also for integrating with methods such as ^{14}C or Ar/Ar. My own main interest is integrating chronologies to improve the reliability and precision of our records. I do this through tephrochronology among other approaches and this I think gives me the perspective to see the potential for a larger more integrated chronological facility. This would require the broad collaboration between a number of centres and the clear need and interest from across the community. Having pulled together a statement to NERC it was apparent that there was clearly both, and this is very exciting.

So what next? If the idea is successful with NERC there is the possibility of a formal call around the establishment of a new facility for providing integration and new provision across these dating methods and adding them to those important techniques funded by NERC. If that is the case, I will probably be writing to you all again to keep you updated on progress. But what if the bid is not successful? I think, having seen the level of interest and support across the community, we should not leave things there. We need to think of new ways of promoting the importance of support for broader a broader chronological focus, especially for ECR's. One option is to try to find small pots of money for collaborative and integrated dating approaches. As a tephra person for example we now know there is the potential to find important tephra across many of the timescales discussed above and I would welcome a discussion with any interested researcher around how we could test the potential of this particular approach. This is especially exciting if it can be integrated with an already established chronology form a different technique. I also wonder if there is potential for a new research network that can bring together specialists in different dating techniques and users of those techniques. I would very much welcome the thoughts of the ViP community.

We hope you enjoyed ViPs Newsletter 5. The Editor thinks that the additional contributions really added to this edition – thank you. **Hint**: he would welcome hearing from your too – get in touch with anything ViPs relevant for the next Newsletter in October.

We made it to the end (almost) of the 2020-2021 academic year – well done! Hope you have a great summer and perhaps even manage some fieldwork (an idea for a piece for the next Newsletter?)

Simon M Hutchinson, ViPs Newsletter Editor (on behalf of the ViPs Coordinating Group)

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