

Chat digest from the ViPs workshop, May 27th 2020

Notes from the coordinating group in blue italics

VR Glaciers Talk – Des McDougall

Comments from users of VR Glaciers

“I used VR glaciers, with very kind input from Des, in the first week or two of UK lockdown for a urgent final year field class replacement (for Leeds Geology and Geog-Geol students). The students seemed to really enjoy the experience and it was super helpful - can fully recommend.” Natasha Barlow

“Yes this is an excellent resource. I used to replace a few geomorphology fieldtrips and found students very excited to explore these landscapes.” Matt Finkenbinder

Other points

- Questions about the time, resources and equipment (camera, software etc.) needed to produce a resource like this were answered in the talk.
- It was suggested that a document which would walk anybody through how to take a set of photos all the way through to loading them into a VR environment would be useful.
- This is also useful for training in field sketching and for pre-fieldwork practice.
- Value for students who can't afford field trips or don't have the mobility to take full part – and enthusiasm for developing versions for a wider range of landscapes e.g. South Africa

CoPol talk – Jane Bunting

Comments from users of CoPol

“I used eSlide this year for a final year micropalaeo course (pre-Covid) for a short intro to pollen. Again, recommended.” Natasha Barlow

“I've been trying this out. It's easy to use for an instructor and gets as close to real pollen analysis without a microscope as is possible” Eline van Asperen

“I've used CoPol for the last 7-8 years. It is brilliant!” Peter Ryan

Other points

- Is it open access? *Contact Jane directly on m.j.bunting@hull.ac.uk for a link – I'm trying to get it added to my institutional repository but that's taking time.*
- Lots of suggestions for other applications in microscope work too – tephra, diatoms, foraminifera, chironomids, testate amoebae, ostracoda, pollen datasets from other regions e.g. New Zealand, South Africa, Australia, stomata, fungal spores, Cladocera, beetles, more pollen types...
- Question about how long this took to set up – *I don't actually remember, sorry*
- Do students access it through a browser or are there other requirements? *It's designed for PC, so doesn't always work on Macs. Students can download from university storage or a*

memory stick, or Hull's IT team have added it to the student image for our department so they can use it on any on campus computer

- Comments about the potential value as preliminary training to enable students to make the most of microscope time - *that is the purpose we first planned for it actually*
- Could we rewrite this into an R package? Would make it more cross-platform
- Could we use it for plant id, or is that a step too far? *I think that would need to be a different package*
- Could CoPol be used for micromorphology? *I think that would need to be a different package*

Understanding pollen source areas

Jane Bunting commented: *I also have teaching materials using pollen dispersal and deposition models (HUMPOL - they can build their own vegetation mosaic, design a sampling strategy, and see what the pollen signal looks like from different places) to help students understand how pollen records reflect the landscape, if anyone is interested? Used them with third years before*

Anne-Birgitte Neilsen: *"I already use Humpol in teaching. Great way to introduce pollen dispersal etc"*.

Positive answers from others – we'll look into this this summer!

Bonify talk – Canan Cakirlar

A paper about Bonify is available: <https://link.springer.com/article/10.1007/s12520-019-00898-1>

And the website is here: <http://digitalbones.eu/>

Other points

- Opens up a collection with no physical distancing issues!
- Important point that AR is limited by technology and cost
 - Although there are options which can be used on phones...
- Website is very effective
- Opportunity to increase multidisciplinary of palaeo teaching
- Great for open days, outreach in museums etc.
- Is there scope to add hominid remains? (particularly useful for teaching). Or lithics?
Some answers to this question are recorded in the audio.

Reports from breakout groups (I've just kept here the points that weren't made on the breakout group reports submitted so far or where points have more detail here – see separate document for more information from those groups)

Practical matters related to the resources and project organisation

- Need to think carefully about duplication of work/effort with other groups e.g. RGS doing virtual fieldwork. *Des is a member of the RGS working group so we will hopefully have good communication!*
- Working group to develop website (template for submitting resources; decide on audience -- different access for educators and students?).

- Two working groups for fieldtrips (one for virtual fieldtrips; one for individual fieldtrips, where students go to their local landscape and record thoughts).
- would be great if all material is easily accessible/searchable so individuals can compile to make bespoke courses for teaching specialisms.
- Perhaps can make interactive practicals and could include students in building these resources e.g. searching for images etc as part of the resource.
- some kind of buddy system to ensure working across expertise - so linking people with the tech skills to people with data (e.g. microfossil images). Some of way connecting people who have written the software and used the software before, to those who are keen to try it out.
- Opportunities to bring people together to work on projects that combine teaching, pedagogy and research.
- Making sure it's easy to contribute to the website
- How to make resources advice would be good

Resources wishlist and suggestions

- also have geochemistry as priority
- Resource on how to log sediment cores (description, photo – zoom-able, ability to zoom-in, interactive – multi-layer, see plant macrofossils. [needs some coordination – core extraction, photography. OR do people have existing cores? Integrate into virtual field trips?]
- Would love to see development of non-northern hemisphere examples e.g. from Latin America, Africa
- Virtual guest lectures would be fab! (lots of comments about this) – topics specifically mentioned include dating – OSL, 14C etc. – and maybe short lab tours. Introductions to topics as well as to methods. Matt Finkenbinder says he already has 14C video! Helen said *“I take students out and show them various tree types and then tell them about the history of the tree via a few classic pollen diagrams, so stand under the tree and tell a story about Holocene history so they can connect and visualise during later lectures examining pollen diagrams. They get everything from a brief taxonomy and id to a holocene history - easy to do even on a phone camera over the summer”*
- Making sure we list generic free software, critical for students who no longer have access to on campus resources. E.g. PolPal (excel pollen diagram plotter), Inkscape

Pedagogical aspects

- how to replicate the hands on lab experience (rather than students just watching us do something)
- Difficult re recreate the learning value of students turning up in the field in the wrong gear, but a short video on field safety.
- ideas for how to use resources within teaching environment e.g. engaging students through appropriate assessments.
- A graduate employability dimension (e.g. students develop resources).
- Really important to approach resources with equality, diversity and inclusion in mind. Some students may not have access to good internet connection or tech to allow engagement with complex or resource-intensive software