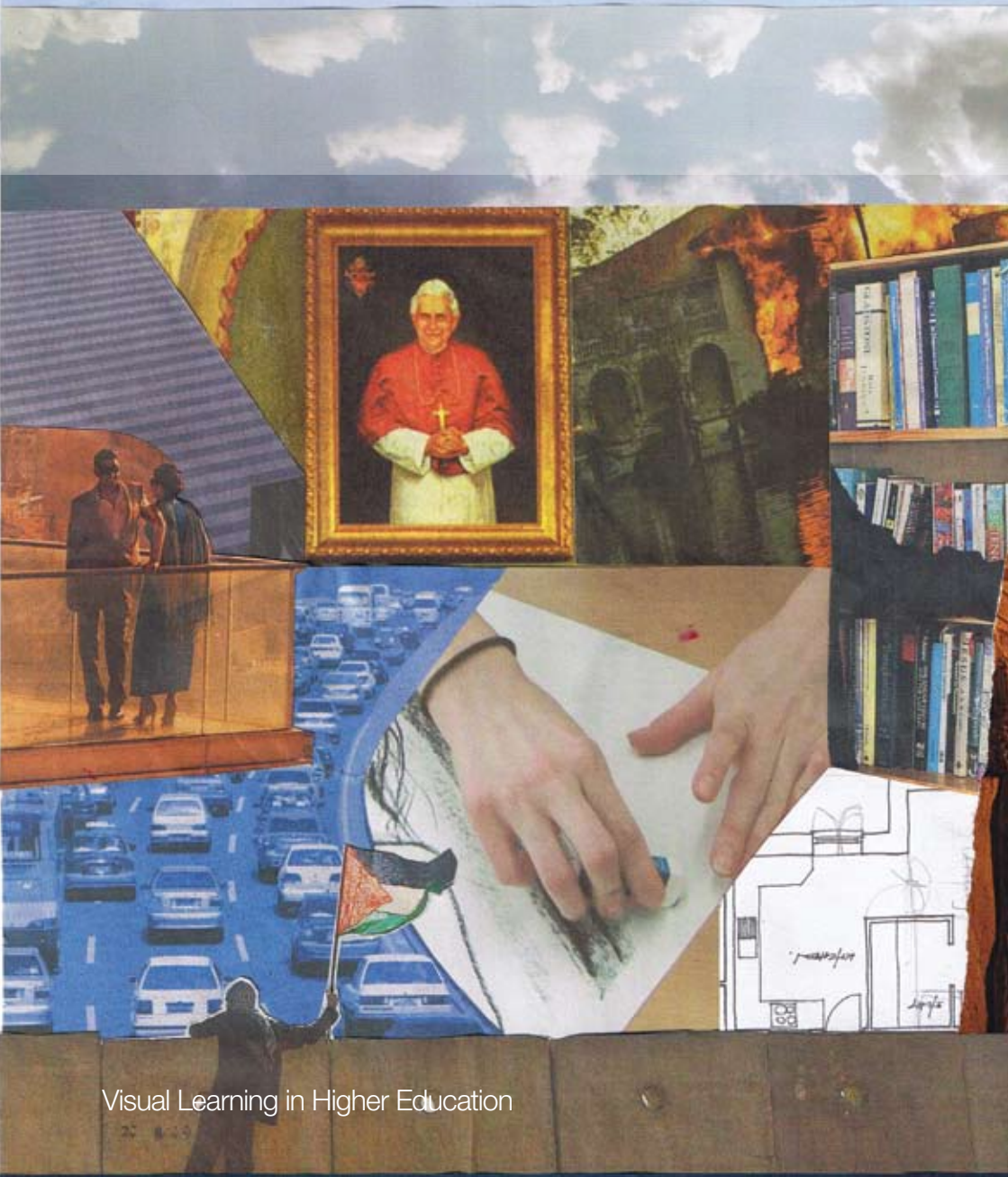


Drawing to Learn

Arts & Humanities

Pauline Ridley and Angela Rogers



Visual Learning in Higher Education

Drawing to Learn

Each of the booklets in this series is addressed to a broad cluster of disciplines and offers a brief introduction to the ways in which drawing and other visual methods may be used to support undergraduate and postgraduate learning and research. We hope the ideas and examples will encourage lecturers and supervisors to explore the possibilities in their own teaching. More resources, including downloadable materials and detailed guidance on the activities and approaches mentioned here, are available online at

www.brighton.ac.uk/visuallearning/drawing

About the authors

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Visual Learning in Higher Education “Drawing to Learn” is one of a number of publications and online resources developed through the LearnHigher Centre of Excellence in Teaching & Learning* to support the development of visual/spatial/tactile knowledge and skills in undergraduate and postgraduate education. These may include: observation and recording of visual data (for instance during field visits or in laboratories or clinical settings); evaluation and analysis of visual evidence; effective use and understanding of visual methods of communication and research. Further information and resources can be found at **www.brighton.ac.uk/visuallearning**

*74 Centres of Excellence in Teaching & Learning (CETLs) were funded by the Higher Education Funding Council for England (HEFCE) from 2005 to 2010. LearnHigher is now managed by the Association for Learning Development in Higher Education (ALDinHE).

For further information and resources for university staff and students on many other areas of learning development see **www.learnhigher.ac.uk**

First published in 2010 by the Centre for Learning & Teaching,
University of Brighton
Design and typeset by JacksonBone

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A CIP record for this book is available from the British Library
ISBN 978-1-905593-72-9

Series foreword: How can drawing support university study?

Drawing and other visual practices have an important role to play in every discipline – not just those with which these activities are usually associated.

Drawing helps to sharpen **observation** skills, a vital element in many subjects, and enables rapid and accurate recording of key data in almost any situation.

Equally, **conceptual drawing** and diagramming requires students to make explicit and tangible their understanding of abstract or complex ideas and processes. By doing so, it provides a basis for these to be discussed, explored and challenged – a powerful way to develop critical thinking and reinforce memory and understanding. Visual approaches can also be valuable in cross-cultural student groups where linguistic uncertainty could cause misunderstandings.

The ability of drawings and other visual images to provide a trigger for discussion and dialogue means they can be used to develop **communication** skills, to encourage students to reflect on their own experience, and to explore professional and personal goals and plan for development.

The potential of images to encode large amounts of information economically also serves an integrating function. Images are fundamentally analogic, triggering a web of associations with familiar domains.



Judy Martin

Analogic thinking and visualisation are recognised elements of higher order thinking and contribute to effective **problem solving skills** (Kaufmann, 1990; Marshall, 1995). For all these reasons, image-based techniques are also valuable **research** tools.

Given these potential benefits, it may seem surprising that, in most subjects, drawing and other visual skills are somewhat underused and rarely taught directly at undergraduate or postgraduate level. A variety of social and historical factors lie behind this omission: a general undervaluing of sensory and technical knowledge which in Europe may be traced back to the rise of the academies between the sixteenth and eighteenth centuries; philosophical traditions which value the life of the mind over that of the body; and longstanding differences of status and income between 'manual' and 'intellectual' forms of work.

More immediately, school experiences often convey the impression that drawing, copying and colouring, while valuable as learning tools in the early years, should be left behind once reading and writing are established. At the same time, widespread (mis)conceptions about self-expression and creativity have sometimes deterred teachers from helping children to acquire basic drawing skills, an omission which then leads to lack of confidence and fluency. Consequently, many people arrive at university assuming i) that drawing is childish and/or irrelevant to academic work, ii) that it is something only artists do, and iii) that they themselves are 'no good' at it.

We need to challenge these beliefs. We expect all students to be literate and numerate even though few of them will become professional writers or mathematicians. Equally, drawing and other visual-spatial skills can be learned by anyone, at any age, to a sufficient level for most practical and conceptual purposes.

However, the barriers described above may also make lecturers hesitate to introduce drawing into their own teaching. We hope this booklet and associated online resources will help overcome any such reluctance. The approaches described here and on the website have been developed and used with academics in many disciplines at different universities. They do not require specialist skills or materials and most can be incorporated into standard teaching sessions. We hope you will try them out and contribute your own ideas and examples via **www.brighton.ac.uk/visualearning/drawing**

Drawing in Arts & Humanities Higher Education

Observation and recording

...you must go about, and constantly, as you go, observe, note and consider the circumstances and behaviour of men in talking, quarrelling or laughing or fighting together.. And take a note of them with slight strokes thus, in a little book which you should always carry with you.

(Leonardo da Vinci, quoted in Kemp, 2006)

This booklet does not attempt to cover specialist approaches to drawing within subjects such as art and design, architecture or archaeology. Instead our focus here is on drawing practices that are useful in a variety of ways to all students across the spectrum of arts and humanities degrees.

In any context, drawing forces us to pay closer attention to what we see. In the past it was the only practical means of documenting the appearance of humans and animals, objects and buildings, and all kinds of natural forms, but this recording function has now been largely taken over by photography and film or video. However, students often take such representations for granted and may 'consume' them uncritically. Drawing (whether directly or from photographic images) pushes all of us to look for longer and to ask *'What is this I am looking at? Why does it look like this? How else might it look? How does it relate and compare to what else I know?'*

These questions are relevant to every discipline within the field of arts and humanities, but particularly so for those engaged to any extent with visual and material culture, whether as practice or object of study. In courses where field sketches are required, students may have had little previous experience in making annotated observational drawings; they may therefore aim for a pleasing image rather than an accurate record or else rely on schematic representations of what they think is there. It is helpful to show them your own notebooks, and provide clear guidelines on what constitutes a useful drawing for specific purposes.



Students of other disciplines will also benefit from informal observational drawing. Encourage them to carry around a small notebook at all times to make rapid drawings of relevant subjects, directly and from memory. The more regularly they do this, the more acute their perception will become. Show them varied examples of observational sketches, and get them to discuss these in terms of what has been noticed rather than aesthetic qualities. They could also alternate between verbal and visual description.

Give students plenty of opportunities to develop their confidence. Re-drawing after an initial sketch can push them to see in more depth and elaborate their original observations. Copying and colouring are also effective ways to learn to look and to reinforce memory. Copying removes anxiety about rendering a likeness and allows students to focus on structure and detail, while many people attest to the study value of detailed specialist science colouring books now available for adults; if none are available in your own area, students could use photocopied line drawings as a base.

For study purposes, drawing skill is mainly a matter of practice and reasonable eye-hand coordination, and is much less important than the ability to look really carefully. There are several widely used exercises, which could be used in introductory sessions and practised independently. One such is '**blind contour drawing**', where the surface on which you are drawing is masked in some way, to focus attention on the subject and the process of looking rather than the drawing as an image. The simplest way to achieve this is to push a pencil through a spare sheet of A4 paper and then hold the pencil below this, so that the paper conceals both hand and the drawing surface below. Now focus on the outline of the object being observed and while following it round with your eye, trace the same contour with your pencil without looking down or lifting the pencil from the paper.

Another common approach is to use a **viewfinder** (made by cutting out a rectangular 'window' in a piece of card) to frame what you are looking at and help concentrate on a small section at a time. In the same way, a **squared grid** overlaid on a source drawing or photograph will enable you to copy this more accurately and notice the fine details in each section. Other looking & drawing exercises offer opportunities to sharpen perception of variations in **tone, colour** or **texture**, while **drawing from touch** reminds us how much knowledge we gain through other senses. Place objects inside boxes or bags and ask students to feel these with one hand and draw with the other. They must discern the object through touch and then visually express this on paper; moving from one modality to another will enhance their awareness of both.

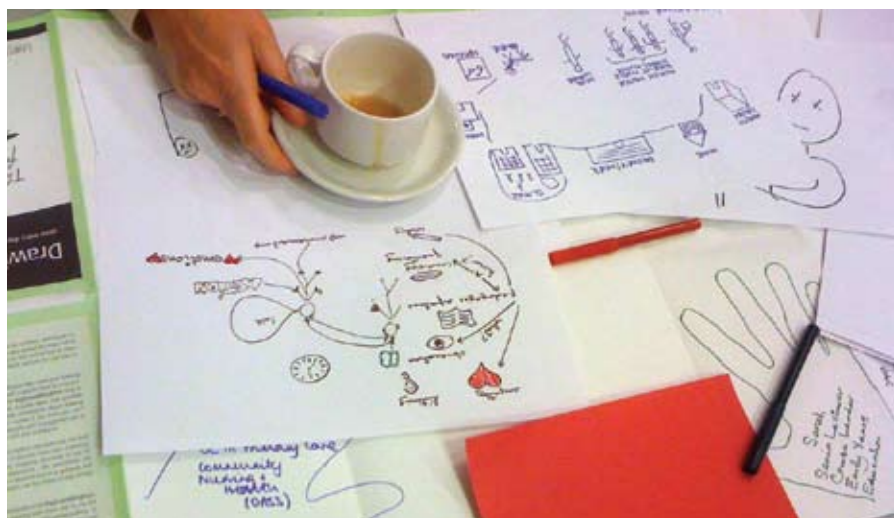
Conceptual drawing, mapping and visualisation

Drawing activity clarifies inner images and drawings provide a record of the thought stream. (McKim, 1980)

In any subject, the habit of giving tangible form to abstract ideas is beneficial. As several studies (eg Brumby, 1984) have shown, university students may reproduce theoretical knowledge accurately in written examinations while retaining fundamental misconceptions that inform their day-to-day thinking. Drawing and other image-based work are excellent ways to reveal such tacit theories, assumptions and values.

You can get students to create **quick freehand drawings** or diagrams in class to represent **key concepts** or processes. This helps them to clarify their own understanding of ideas, whether the subject is ethical or philosophical debate, historiographic approaches, linguistic systems, narrative or musical structures or any other abstract mental model. The group can then compare and discuss the different versions, enabling them to explore ambiguities (and if necessary, correct any factual misunderstandings).

Students in most arts and humanities disciplines will also need to engage with graphic representations of information, whether graphs, maps or diagrams. We should not however, assume that they always know how to interpret or use these appropriately. Making their own versions helps to develop a more sophisticated understanding of the relationship between symbolic representations and what is being described.



Mind maps, especially when these include schematic images to represent individual elements, can help individuals or groups to build up a 'bigger picture' of complex systems or subjects. Recording group discussion on whiteboards or flip charts makes the thinking process visible immediately. Unlike text which is read in a linear sequence, mind maps and diagrams allow a great deal of information to be apprehended simultaneously. For this reason, they can often be particularly helpful for art and design students, and those with dyslexia, to help plan and organise their reading and written assignments, and as aide-memoires and tools for revision.

Timelines and storyboards Drawing gives us a way to investigate and play with the sequence of events. Formats such as annotated timelines and storyboards (short comic strips) can help students to visualise and communicate ideas about what has happened in the past or to project into the future. For instance, they lend themselves well to analyses of narrative and structure in literature, music, performance, film or other time-based media, to explorations of tenses and other linguistic forms in language studies, and to representing all kinds of historical sequence or relationships.

A4 paper and 'sticky notes' are sufficient for most purposes, but if the teaching space allows, the whole group can create a giant timeline or story board on the floor or wall, using large sheets of lining paper. The physicality of such activities often reinforces the impact on learning.



Collage

For most kinds of conceptual mapping and visualisation, basic tools such as pens, pencils and paper are enough. However, there are times when collage (constructing a picture by sticking images or other materials to a surface) can be even more effective.

Collage seems to work best when we move from the intuitive to the conceptual so it is an appropriate medium for exploring identity, ethics and professional dilemmas. You may want to provide images that relate directly to the subject matter of the session but this is not always necessary, as students will bring their own associations to quite random collections of material. Either way, it is helpful to collect images in advance from a variety of magazines or newspapers to give plenty of choice.

Ask each student to make an initial selection of images that relate to their beliefs or experiences or understanding of the given topic, or even just attract their attention for reasons that they cannot rationalise. They then combine and arrange these – according to whatever system of connections makes most sense to them – and stick them down on a large sheet of paper. If space is very limited, collages on postcards can also work well. In small groups, students then discuss their collages and may add signs and text in the light of these conversations.

A good way to extend collage activity is to make A4 or A3 colour copies to look back on at a later date or to cut up and integrate into new collages. This iterative approach helps students review their thinking over time and reflect on their own learning.



Angela Rogers

Communication, reflection and dialogue

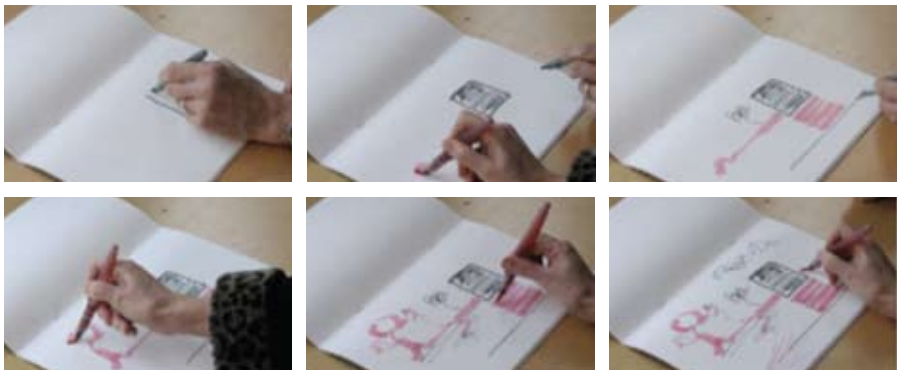
More important than thought is what leads us to thought, impressions that force us to look, encounters which force us to interpret, expressions that force us to think (Deleuze, 1964).

For most of the activities described in this booklet, the greatest benefits come from using the drawings that people have produced as a trigger for subsequent group discussion and reflection.

Drawing can also be used to support students' ability to reflect on their own learning and professional development, and to build their awareness and skills in relation to interpersonal communication. Seminars and discussion are key elements of study in the arts and humanities, while the ability to communicate effectively with colleagues and the general public is increasingly seen as an important skill for all graduates. In addition, many students will undertake interviews at some point in their course – liaising with clients or user groups for design projects, conducting oral history interviews or other qualitative research.

Paired drawing, in which each participant in turn adds to the drawing, building on each other's contributions, is a great way for students to explore the dynamics of one-to-one communication. The lessons learned will be relevant to their professional interactions with colleagues and to any other kind of one-to-one work. In these 'drawing encounters':

...the process of improvising the rules of engagement, and negotiating the shared territory, is made visible, and the paper becomes an arena for mutual reflection and collaborative inquiry" (Rogers, 2010).



Collaborative drawings produced in larger groups can extend these insights to more complex forms of communication and meaning-making. They are also a particularly good way for a group to share hopes and fears at the beginning of a course and to review their progress later on. For instance, to explore beliefs about professional or academic identities, you might ask students to discuss and draw – in and around a life-size outline figure – the attributes of an ‘ideal’ historian, musician, philosopher or other practitioner. This can help prompt discussion of whether these expectations are realistic and how to achieve them. As a follow-up activity, students might produce maps or storyboards to represent the learning journey between their current state and where they want to arrive.



Debbie Holley

Drawing is an intuitive strategy open to all, and the sensations and emotions that it triggers can be an effective catalyst for deep and critical thinking. Using colour, expressive mark making and symbolic imagery, students can **explore experiences** through analogy and empathy. One workshop participant wrote afterwards:

...it showed [us] that drawing depicts concepts in a very emotionally raw way, and that people are accessing their thoughts and feelings via quite a different route than when verbalizing...

However, with any teaching activity that may elicit deep seated feelings, it is important to be clear in advance about why students are doing this and to agree guidelines on confidentiality. Because there is no fixed language of visual expression, drawing offers a valuable element of ambiguity in interpretation; it allows feelings to be expressed but not necessarily to be apparent to other participants. Students can choose how much or how little to elucidate.

It is also useful to consider with students how any drawing activities might be adapted for working with people outside their own discipline. The absence of a shared specialist vocabulary can often hinder communication but making something visual can provide a bridge. Practising such activities for themselves develops students' understanding and confidence about using such methods in their future work, whatever that may be.



Research

It has become increasingly clear since the latter half of the 20th century that knowledge or understanding is not always reducible to language. (Eisner, 2008).

In the same ways that drawing can support learning and teaching, it is a valuable addition to every stage of research. Qualitative research in most disciplines still relies mainly on written or spoken language, with questionnaires, interviews and focus groups dominating most students' assumptions about research methods. However, visual methods are effective in helping respondents to access areas and levels of experience that may not easily surface in verbal form. They could and should take their place in the researcher's toolkit.

As with any research process involving human subjects, normal rules of ethical procedure and informed consent apply. We must also stress that the aim here is not to produce images to be interpreted by the researcher but to use them to prompt and support meaningful conversations.

At later stages of the research process, any of the visual methods discussed in previous sections can help the researcher to explore emergent theoretical insights. The page from Darwin's notebooks, in which the words, 'I think' are followed by his first-known sketch of an evolutionary 'Tree of Life', is a particularly famous example, but others can be found in many fields (Phipps, 2006).

Most researchers will have times when their thinking is 'stuck' or they feel they have reached a dead end. Using visual analogy to explore this situation can reveal unexplored avenues or identify insights previously unrecognised. Here the associative potential of collage is especially helpful (Butler-Kisma & Poldma, 2009)

Visual representations are now more commonly used to communicate research findings. Using more expressive modes alongside charts and standard graphical data can help to generate new forms of knowledge and understanding.

An image can be a multilayered theoretical statement, simultaneously positing even contradictory propositions for us to consider. (Weber, 2008).

Final thoughts

We hope that the suggestions and examples in this brief outline will encourage you to consider incorporating drawing and other visual methods into your lectures, seminars and other teaching sessions. Our experience, and that of the colleagues with whom we have worked over the past few years, is that most students really appreciate the excitement and energy that comes with using active visual approaches in an academic context.

We would emphasise again that most of these do not need elaborate preparation, specialist materials or unlimited space and time. However, like any other teaching strategy, they benefit from thoughtful planning and selection of the most appropriate activities for each purpose, and sufficient time for discussion afterwards.

It is worth spending a few minutes explaining the rationale for what you are asking students to do, so that they understand that what may seem like ‘play’ has a serious purpose. At the same time, aim for a relaxed atmosphere so that anxiety about perceived lack of drawing skill does not inhibit anyone’s ability to participate fully.

Wherever possible, keep a record of drawing activities and the images produced, so that students can revisit these later. Digital technologies have made it very easy to take quick photographs and upload them to online sites or virtual learning environments (VLEs). Giving students the chance to do this for themselves aids their ownership of the process. Reviewing the images helps to re-activate memories of the session and reinforce students’ learning, while printouts, with comments and other additions, can usefully be included in reflective journals or portfolios.

The website associated with these booklets contains more detailed descriptions and tips for running particular activities, along with downloadable materials, case studies and links to further reading and resources. We hope that you will find these useful and that you will contribute to future debates about the role of drawing in higher education, by sending us your feedback and suggestions via the website

www.brighton.ac.uk/visualllearning/drawing

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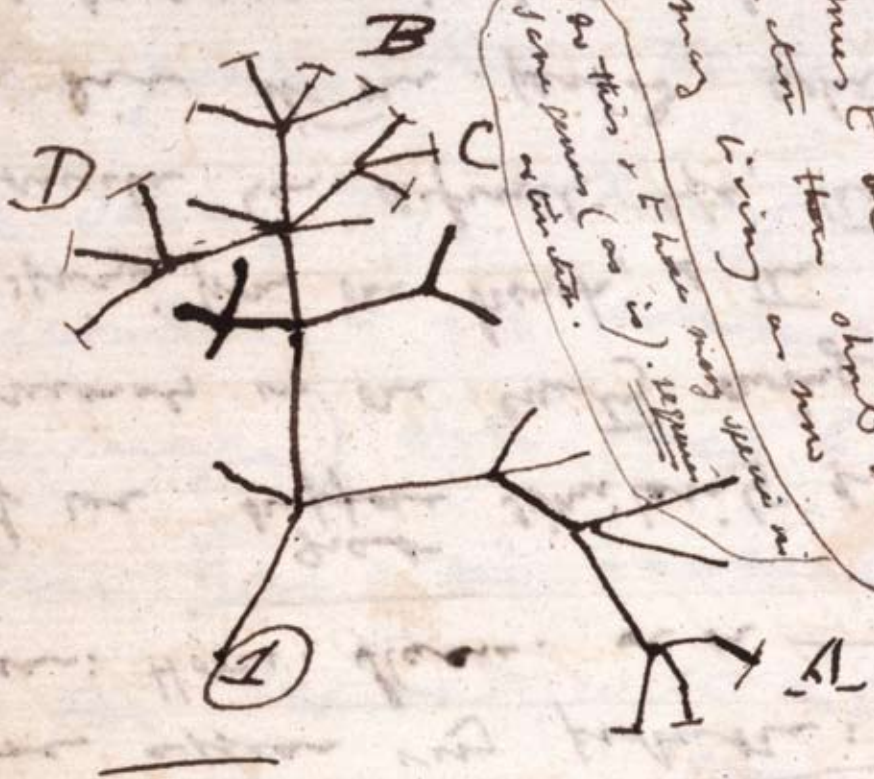
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I think



Can there be other living species in this area? (no in)

Do the things I have going on here as the last.

There between A & B. various
 sort of relation. C + B. The
 finest gradation, B & D