

Fantastic creatures – fantastic students: engaging students in exploring the nature of knowledge through creative practice.

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Abstract

This paper describes one specific assignment that forms part of an undergraduate module (Creative Conservation) in the School of Anthropology and Conservation at the University of Kent. Inspired by the Mexican *alebrije*, the assignment tasks students to imagine a fantastical organism, make a model of it, and produce a 'text' that imparts some form of authenticity. In so doing, the predominantly natural and social science students who take the module are, through the processes of making and of generating evidence, challenged to consider the nature of knowledge and different means by which it can be validated. As well as recognising and valuing their own creative capacities, they are thereby encouraged to question the hegemony of the positivistic scientific paradigm, and consider other ways and means of understanding. The *alebrije* assignment has proven to be very well-liked by the students, who consistently produce beautifully crafted, highly imaginative models and accompanying 'texts', and often report the exercise to have been an engaging and profound learning experience. It is hoped that other learning providers will be able to adapt the basic idea to their own contexts and subject areas.

Introduction

There is substantial body of evidence that supports the view that engaging students through creative practice has significant positive effects on student learning (e.g. Allam, 2017). But as well as recognising the importance of creativity to the development of effective educational practices, it is widely accepted that creative abilities and practice almost invariably improve an individual's career, their personal wellbeing, sense of fulfilment, and make a positive contribution to society in general. The key role that creativity has to play in successful economic developments and ventures is reiterated repeatedly across all sectors of industry, commerce and government; with concomitant calls for better training in the relevant skills across higher education programmes. More crucially, its contribution to the adaptive capacity of persons, communities and societies to cope with the existential threat of the increasingly uncertain future precipitated by climatic change and other environmental phenomena, may well prove vital to our being able to deal successfully with this threat. Yet evidence from the USA points to a steady decrease in creative thinking scores amongst all age groups since 1990 (Hee Kim, 2017), whilst research published in the same year by the UK's Education Policy Institute reported 2016 to have seen the lowest level of Key Stage 4 entries to arts and design subjects for ten years (Johnes, 2017).

Against this background, learning and teaching developers often have to exert considerable time and effort in order to incorporate creative activities across the curriculum and/or resist changes that tend to diminish them, whilst pedagogical experts, such as Jackson (2006), Robinson (2006) and Robinson and Aronica (2015), convincingly argue for the need to transform the educational paradigm through weaving creativity throughout the curriculum in order to better prepare young people for the world to come.

In some subject areas, such as the natural sciences, the situation can be particularly challenging because of the essential epistemological paradigms that underpin them. In the School of Anthropology and Conservation (SAC) at the University of Kent, the numerous fields we engage with privileges us in having a wide range of module topics available that embrace a variety of research methodologies and approaches to learning and assessment. We do also engage with different epistemological positions. Yet, as is arguably the case across most of the science-based HE sector provision, the development opportunities we provide in creative thinking and practice to our students is relatively meagre. They remain largely bounded by the traditional understanding of what our disciplines regard as genuine and appropriate knowledge - essentially operating within a positivist framework - and how this should be generated and communicated. Moreover, with the increasingly bureaucratic frameworks, our metrics-driven environment, and burgeoning workloads we are now obliged to work within, it is not surprising that there is little appetite to innovate our curriculum in order to encourage and integrate more creative thinking and practice.

The creative engagement

This paper discusses creative learning in the context of an undergraduate module I designed (Creative Conservation), which has been running since 2015 as a 'wild module'. Although available to 2nd and 3rd year students from across the University, and usually enriched by some from other disciplines, it is overwhelmingly populated by students from SAC, primarily by those on our BSc Wildlife Conservation and BSc Environmental Social Science bachelor programmes. The module design was informed by my critical stance towards what some argue has become the 'business of conservation' and the dominance of the positivist scientific paradigm within it. It was also driven by my interest in experiential learning, the learning value of making (Ingold, 2013), my own multiple skill-base in arts and crafts, and my belief in the potential role of the creative arts in conservation practice and communication. Its primary objective, as stated in the module description, is: "...to engage students with a range of ways of thinking critically and creatively about conservation issues and their communication whilst developing their own creative practice and skills portfolio." As such, it is founded on the idea of challenging the student's tendency to look at the world from within a largely positivistic epistemological framework, by extending the scope of what they recognise as being critical and creative, challenging any self-belief of their lacking creativity, and thereby encouraging them to step outside their 'comfort zone'.

The module begins with an exploration of what it means to be creative; here employing von Oech's 'mental locks to creativity' framework (Oech, 1983) from amongst the plethora of readily available sets of 'rules' for generating creativity. These are summarised as: *the right answer, that's not logical, follow the rules, be practical, avoid ambiguity, to err is wrong, play is frivolous, that's not my area, don't be foolish, and, I'm not creative*. It seeks to unpick these through sharing the students' own experiences and considering creativity in relation to conservation through deconstructing and exploring a range of topics – including, the use of nature in art, the wildlife documentary, game-playing, poetry-writing and environmental cartoons. The module is assessed by three assignments: the *alebrije* exercise (30%); a group project (30%); and a workbook/journal of reflective learning and the creative journey (40%). Here I wish to share the first chapter of the students' passage through the module, the *alebrije* assignment; an element that has proven to be a particularly successful, engaging and thought-provoking exercise for the students.

The idea for the *alebrije* exercise derived from my experience of a Darwin Initiative project on the conservation of the axolotl in Mexico (Bride *et. al.* 2007). I became enchanted by the

plethora of amazing craft items produced and consumed by the Mexican people - as well as by tourists. The project included working with Mexican counterparts to design and run an axolotl souvenir production training workshop in which members of the local community made a range of items, including axolotl-inspired 'alebrijes'. *Alebrijes* are brightly-coloured Oaxacan folk art sculptures of fantastical creatures. They were originated by Pedro Linares in the 1930s after a dream, who made them from cardboard and papier-mâché and who coined the term. Designs were subsequently adapted to a local fine-grained, soft timber ('copal') from trees of the genus *Bursera*, and are now widely available in Mexican craft markets. In fact, several *Bursera* species have become threatened by over exploitation (Purata, 2005) - so there is also an important conservation discussion to be had concerning the sustainable use of natural resources, resource dependent livelihoods, and the impacts of tourism on both.

The brief for the *alebrije* exercise is to draw upon one's knowledge and experience of the living world to think up a fantastical organism, make a model of it using any materials of choice, and interpret it by providing a 'text' that affords some form of authenticity – and to thereby think about how different textual forms convey authority, give credence to knowledge claims, and embody certain ideas, concepts and messages, as well as what comprises valid knowledge. The assignment is set near the start of the module, with students given several weeks to complete it so that they might take their time to explore its depths. A small materials budget is available on request, and marks are awarded for: the concept, the making, and the interpretative 'text'.

Fantasies realised

In all four years the assignment has run, after some initial requests for materials and technical advice on making, it all goes very quiet; indeed so much so that the first time around I began to get a little nervous as to what the results would be. I was worried that students were not engaging, and initially had no idea as to what would emerge from the exercise, and hence set my expectations rather low. So when the day of submission arrived and our receptionist called asking me what he should do with the stream of 30+ models - some with the paint still drying - that were arriving at reception, I was excited to see them. And what the students had produced really lifted my spirits - they were truly fantastic! Not only did they embody considerable thought in terms of the physiology, ecology and behaviour of the invented species and their habitats, as well as in the construction of a 'proper' scientific name derived from Greek and Latin (to reference the serendipity that underlies the supposedly rigorous process of binomial nomenclature), they also demonstrated a developed understanding of materials and construction - even if a result of making significant mistakes! (students have space in their Reflective Text assignment to consider their learning through making). The exercise has since become a key element of the module, and the models are now proudly exhibited each year in display cases in the café area in the building we share with the School of Architecture. Most importantly, the assignment clearly frees students from some of their 'mental blocks' to creativity, whether in respect to formulating their concept, in the process of making, or through producing the interpretative text.

As well as sophisticated conceptions of creatures based on extant organisms or syntheses of two or more animals and plants, we are treated to more ephemeral beasts (student's name and year cohort referenced). These have included: the Flamed Megapode - *Magapodius ingi* (Flint: 2015), which lives in volcanoes; the Geo Gnome – *Latericus tortus amfractus* (Whitfield: 2016), an extinct 'brick building' creature that might have been the

originator of all life on earth; *Plasticus natura* (Degiorgis: 2018) a plastic-eating, half-alive, creature/product that has evolved in Anthropocene refuse piles; or The Shroud (Grassby-Lewis: 2018), a jellyfish-like creature of dark energy that lives off regret, guilt, pain and suffering, and which flits, ghost-like, in and out of human spaces at the scenes of gruesome crimes. Similarly, although most of the modelled *alebrijes* have referenced the traditional Mexican forms, but employed a much wider range of materials, others have surprised with their ingenuity, such as: the Cnidarian (Alba-Costas: 2017), delicately sewn around half a lacy bra!; the beautiful ambush predator, the Petalled Reap - *Coeruleum flosspluma* (Evetts: 2015); the nectar-drinking Flower-faced Blue-beak - *Ornithoanthus glautrumpus* (England: 2015); the exquisite King Red Crowned Crane - *Grus japonensis vassilias* (Mukomoto: 2015) - formed from individual pieces of folded paper; and the rock-based Mushroom Tortoise - *Petrachelone manitarius* (гриб черепаховый - pronounced 'grib cherepakhovyy' in its native Russia) (Rowe: 2016).

Images: (see appendices)

Flamed Megapode - *Magapodius ingi* (Flint: 2015)

Geo Gnome – *Latericus tortus amfractus* (Whitfield: 2016)

Plasticus natura (Degiorgis: 2018)

Shroud (Grassby-Lewis: 2018)

Cnidarian (Alba-Costas: 2017)

Petalled Reap - *Coeruleum flosspluma* (Evetts: 2015)

Flower-faced Blue-beak - *Ornithoanthus glautrumpus* (England: 2015)

King Red Crowned Crane - *Grus japonensis vassilias* (Mukomoto: 2015)

Mushroom Tortoise - *Petrachelone manitarius* (Rowe: 2016)

Relic human - *Homo relicuum* (Dangerfield: 2020)

And as for the authoritative interpretive texts; these too have been highly creative. There have been the more predictable International Union for the Conservation of Nature (IUCN) Red List pages, field guide entries, popular and formally styled scientific articles, and newspaper articles – though these still have to adhere to measures of authenticity, even down to any references that the student has made up (yes, they are actually encouraged to make up references!). But there have been many more imaginative contributions, including a top-secret CIA document (Eliadis: 2017), several poems, a battered and stained page from an explorer's diary (Clark: 2015) - through to a message in a bottle from a shipwreck survivor (Buhus: 2016), voices of the creatures themselves, and video interviews with members of the public who had actually just witnessed 'the beast' emerge from the sea at Whitstable beach! (Shipman: 2016). Most recently, in 2020, we have been transported into the future to be 'shocked' by the last humans, whether as the biologically degenerate, relict species, *Homo relicuum* (Dangerfield) or *Homo insipiens*, an AI-human synthesis warning us against continuing along our catastrophic environmental path.

Conclusions

Almost without exception, this exercise has stimulated the students' creativity every year the module has run. I confess that I myself have been surprised as to how popular and successful it has proven to be – with students describing how they would turn to the model-making as a break from their routine assignments and spend many more hours than the assignment 'required' because they enjoyed it so much - describing it as being 'different', 'innovative', and 'liberating', and as helping them 'get out of their comfort zone and think about things in a different way'. Such feedback not only gives me a warm glow for achieving my educational objectives, but also helps me cope with the more bureaucratic aspects of

working in HE (and putting up with colleagues who think 'e' stands for 'electronic' rather than 'education!'). I believe another key to the success of this exercise is the fact that it starts from where the students are - with a 'language' they understand - and then provides a structured context that allows individual students free space to play, risk, rule-break etc. to a degree they are relatively comfortable with – and then get an extra, gentle nudge from me. The core module objective of employing innovative means to get students to consider ways of knowing that lie outside science, is also being met. Indeed, the external examiner singled out Creative Conservation in the 'best practice' section of his report, describing it as: “A highly original and innovative module, generating in-depth student engagement and constructive, reflective feedback” and “The quality and originality of the best work is remarkable.” Yet, given the nature of 'this beast' it seems only fair that one of the students should have the last word:

I no longer worry doing crafty, imaginative things is silly like I used to, or care that others still think they are. I now see it doesn't matter, and the process of alebriji making taught me a lot that probably even you didn't intend it to. Thank you for this module. I feel that it has been vital to keep me sane this term; a breath of fresh air and a space to think in amongst the dry, busy city of academic thoughts and research. Which funnily enough, has improved my level of functioning when in that city.

(Rhiannon, BSc. Wildlife Conservation, 2015).

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Appendices



Flamed Megapode - *Magapodius ingi* (Flint: 2015)



Geo Gnome – *Latericus tortus amfractus* (Whitfield: 2016)



Plasticus natura (Degiorgis: 2018)



Petalled Reap - Coeruleum flosspluma (Evetts: 2015)



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Relic human - *Homo relicuum* (Dangerfield: 2020)