

Repair work: surfacing the geographies of dead animals

Merle Patchett* *University of Glasgow*

Kate Foster***Glasgow Sculpture Studios*

Abstract

An artist and a geographer asked the same question: what is a zoological specimen and how can it be used? Considerable attention has been paid to the 'finished' form and display of taxidermy specimens inside cabinets, behind glass – in other words to their representation. We challenge the priority given to representation by getting under the skin and behind-the-scenes to show how specimens have been entangled 'in life' as well as how we have creatively taken part in their 'afterlives'. These efforts are aligned with work in cultural geography seeking to counteract 'deadening effects' in an active world (Thrift and Dewsbury 2000), and stay alive to the 'more-than-representational' aspects of life (Lorimer 2005). The paper documents two of our experimental attempts to revive and repair zoological specimens and collections, work which was underlain by observations of taxidermy practice. First we show how the creation of a 'web-archive' offered an expanded repertoire of interpretation and engagement for an extremely rare zoological specimen. Secondly, we show how a temporary exhibition in a zoology museum highlighted the transformative potential of cross-disciplinary efforts to re-present zoological material.

Key words: taxidermy, repair, non-representational theory, art-geography collaboration

Introduction

Apparently this section had been devoted to natural history, but everything had long since passed out of recognition. A few shrivelled and blackened vestiges of what had once been stuffed animals, desiccated mummies in jars that had once held spirit, a brown dust of departed plants; that was all! I was sorry for that, because I should have been glad to trace the patient readjustments by which the conquest of animated nature had been attained. (Wells 1935: 75)

Taxidermy specimens and displays have become increasingly liminal in contemporary society. Viewed variously as historical curios, obsolete relics or more malignantly as 'monstrosities', for many they are a source of discomfort. Acting as uncomfortable reminders of past scientific and colonial practices that sought to capture, order and control animated life, they have become increasingly problematic for their owners. As a result many taxidermy displays have been dismantled and mounts relegated to 'backstores' to gather dust, while those left on display often linger as fetid relics of the 'heyday of natural history' (Barber 1980).¹ Ironically, the practice of taxidermy is a quest for 'liveness', imputing life back into the dead. Much like the taxidermist, our goal as geographer and artist has been to revive and restore. These efforts are aligned with work in cultural geography seeking to counteract 'deadening effects' in an active world (Thrift and Dewsbury 2000), and stay alive to the 'more-than-representational' aspects of life (Lorimer 2005). Yet, as we shall argue, bringing life to taxidermy specimens is not a matter of sprinkling them with magical agency dust, rather it is to view them as 'in life' (Ingold 2006) – to recover and restore them within the entangled natural and cultural practices and geographies of their making and continued maintenance.

The paper documents and reflects upon two outcomes of our shared investigation: the creation of a web-archive and installation of a temporary exhibition.² While in this paper the narrative voice takes the form of 'we', our respective geographical and artistic sensibilities will

be more or less vocal at different points throughout the paper. We work experimentally across disciplines but also retain our respective disciplinary orientations. To begin, we challenge the priority given to the representational surface in much academic and artistic work addressing taxidermy and zoological collections by arguing it is important to attend to the practices behind their making (Dubow 2004). Observations of a taxidermist at work allowed us to 'surface the invisible work' behind the making of and maintenance of specimens and collections, in turn permitting a refocus on recovering the past and emergent practices and relationships that produce and maintain zoological specimens and collections, allowing us to experiment in their revival and repair. The first repair-work was to revitalize the object history of a rare skull of an extinct antelope. We discovered emancipatory and creative force is to be drawn from working *sous rature* (Derrida 1976). The second repair-work was a temporary exhibition inserting artistic and geographical work into a zoology museum. A series of 'intimate encounters' were generated drawing on existing exhibits, to renew interest in them yet also offer transformative critique (Bonnell and Simon 2007).

Getting under the skin

The tidiness of taxidermic dioramas, by contrast with the blood and guts of taxidermic work, is one more instance of scientific representation which deletes the "behind-the-scenes" work ... recovering the material basis of science by looking very directly at the stuff it uses and the stuff it leaves behind is one way to begin restoring the links, and reclaiming the mess. (Star 1992: 281–2)

Considerable attention has been paid to the 'finished' form and display of taxidermy specimens inside cabinets, behind glass – in other words to their representation (see for example Haraway 1989, Griesemer 1990, Wonders 1993, 2003, Ryan 2000, Shell 2004). Instead, we worked to recover the practices and relationships that have brought specimens to their containment and apparent stasis behind glass (e.g. Patchett 2008; Foster at <www.meansealevel.net>). While certain academic studies have exposed some of the hidden labour (e.g. Griesemer 1990, Wonders 1993) and political architecture (e.g. Haraway 1989, Shell 2004) behind the making of taxidermy displays and dioramas, in the main taxidermy is cast as an organized craft for elucidating an 'unambiguous experience of organic perfection', and the actual specimens have been figured as static representational props fixed in form and meaning (Haraway 1989: 38). Described variously as 'frozen temporal sections' (Haraway 1989: 42), 'transparent windows on the world' (Wonders 1993) or as 'recreations of nature as apparently authentic yet utterly docile' (Ryan 2000: 206), taxidermy displays have been cast as the ossified relics of an outmoded and problematic representational practice and therefore as practically redundant.

In order to avoid casting taxidermy specimens and displays as 'utterly docile', we challenge the view that taxidermy displays merely present an unambiguous experience of a historical way of seeing/presenting nature. As Poliquin (2008 in this issue) highlights, it is the very ambiguity of taxidermy specimens that has inspired more recent reflections on taxidermy (e.g. Star 1992, Hauser 1998, Baker 2000, Desmond 2002, Broglio 2005, Snæbjörnsdóttir and Wilson 2006). Such work has shown that the inertness of taxidermic representations assumed by previous commentaries is in reality as much an illusion as the visions of nature they supposedly capture. The craft of taxidermy can be considered as an attempt to create unambiguous visions of nature, but the very strategies that work to fix taxidermy mounts as typical examples of natural orders also destabilize their identity. Crucially the use of actual animal skin (and often other matter originating with the animal) combined with mimetic crafts ensure that a taxidermy specimen both represents itself as an object and also itself as a former living animal. As such taxidermy specimens will always appear as 'something other than an object enframed by human desires' (Broglio 2005 cited in Baker 2006: 152; see also Desmond 2002; Marvin 2006). In this manner, although displays in museums can direct our understanding of, and responses to, taxidermy, specimen animals are excessive material entities resisting complete 'containment' and retaining both aesthetic and ontological ambiguity (Edensor 2005: 312). Furthermore, it is becoming increasingly unusual to encounter examples of pristine taxidermy (visions of organic perfection) because of the current fashion for removing taxidermy

displays from their protective glass cases, and because there is a lack of trained taxidermists to repair and replace decaying specimens. This means that even those specimens that were initially expertly mounted can be literally 'coming apart at the seams' (Hauser 1998: 10–11).

Yet as Poliquin (2008 in this issue) also conveys, it is precisely this sense of entropy and resultant promiscuity of presence that has inspired a new wave of artists and commentators to engage with and re-use taxidermy specimens and representations. As Steve Baker has commented 'if tattiness, imperfection and botched form count for anything, it is that they render the animal *abrasively visible*' (Baker 2000: 62 – our emphasis). Most contemporary artists using taxidermy specimens draw upon the enlivening effect of bodily presence to variously inspire shock, poignancy and/or melancholia. Thomas Grunfeld, for example, has exploited the Frankensteinian aspects of taxidermy practice to create his own 'misfit' specimens composed of unrelated animal parts in critical commentary of human manipulation of and control over nature. By comparison Snæbjörnsdóttir and Wilson have harnessed the contradictory physicality of whole taxidermy specimens in their project *nanoq: flatout and bluesome*. In this work, it was the imperfections of the polar bear taxidermy specimens they collected and reassembled, the obvious marks of human manipulation, that made them so protean (Snæbjörnsdóttir and Wilson 2006; also from that volume see Baker 2006, Henning 2006, Marvin 2006). Unlike many other artists re-presenting taxidermy specimens, they drew attention to the fragility of the enlivening presence performed by the dermis of the bears. For the artists, at least, it was important to get beyond a consideration of the surface of the bears to suggest something of the complex historical practices that had brought them into being: 'the spectacle of the bears presented a beautiful veneer beneath which lay a conundrum oscillating backwards and forwards between nature and culture, taking in all manner of aspects of human achievement, endeavour, cruelty and folly along the way' (Snæbjörnsdóttir and Wilson quoted by Baker 2006: 154).

Our joint work aimed to 'challenge the priority given to the representational surface' more explicitly than writings on and artistic appropriations of taxidermy specimens and zoological collections have done so far (Dubow 2004: 268). We aim to harness the provocative physicality of taxidermy specimens, but avoid re-casting them as ossified relics of a historical way of seeing, or simply as 'troubling art-objects' (Poliquin 2008 in this issue). Therefore rather than dwell exclusively on the form and meaning of taxidermy specimens – i.e. the static representational end-points – our investigations have sought to 'surface the invisible work' behind the making and maintenance of taxidermy specimens and zoological collections – hence our prioritization of practice (Star 1999: 385). This is, in part, inspired by non-representational theoretical (NRT) currents in cultural geography (for a developing manifesto of NRT see Thrift 1996, 1997, 2000 and for details of its reception and use in geography see Lorimer 2005, 2007, 2008). Non-representational theorists propose working from a 'serial logic of the unfinished' to counteract the 'embalming obsession' with form and meaning which dominates research in the humanities and social sciences, arguing that 'events are drained for the sake of orders, mechanisms, structures, and processes' (Dewsbury *et al.* 2002: 438). Rather than work from a representational logic which seeks to contain or deny excess, movement, life, non-representational work deliberately attends to 'things taking place' – hence the empirical focus on embodied practice and dynamic processes (Dewsbury *et al.* 2002: 438; for examples see Harrison 2000, Wylie 2002, McCormack 2002, Dewsbury 2003). Yet rather than deny representation (as the title may suggest) NRT redirects attention from posited meaning towards the material compositions and conduct of representations – hence our preference for the term 'more-than-representational' (Lorimer 2005: 84).

In order to get 'under the skin' and reclaim the 'mess' of taxidermy we initially observed a museum taxidermist at work to appreciate the material compositions and conduct of taxidermy (Star 1992: 282). Adopting a 'position of ignorance' allowed us to respond openly and better account for the self-evidently 'more-than-human, more-than-textual, multisensual' aspects of taxidermy practice (Lorimer 2005: 83). Taxidermy has often been criticized for transforming the individual animal into an example specimen standing for a whole species: 'each animal becomes an example, a type, a token, rather than a unique individual' (Marvin 2006: 163). In comparison, the taxidermist Peter Summers of the National Museum Scotland (NMS), worked with the individual immediacy of the dead animals he restored. Each specimen Summers worked on constituted an intimate exploration of the animal inside-out. For example, Summers

always referred to the original body parts when he made a replacement, ensuring he recreated the unique form of the once living animal as faithfully as possible. Museum taxidermy at the NMS is distinct from trophy taxidermy because of the ethical policy disallowing that animals be killed for collections. It has been claimed that the craft of taxidermy elucidates an 'unambiguous experience of organic perfection', but observation of Summers and discussing the development of the craft (in Britain at least) with him, taught us that the guiding principles of the practice are very much ones of repair and improvisation rather than perfection. We witnessed Summers' magic touch mend broken wing-bones, salvage 'slipping' skin (that is, decaying) and soften the most leathery of tanned skins, and often with the most basic of tools and materials. The process of taxidermy, put crudely, is one of dismemberment and reassembly, yet in Summers's hands we came to see it as an enlivening process (Desmond 2002). Of course Summers' quality of improvisational practice, his ability to respond to and reproduce the particularities of individual specimens, is exceptional. However even taxidermy manuals from late nineteenth and early twentieth century – the heyday of realistic illusionism – convey an ethos of improvisation and innovation rather than perfectionism. For example Oliver Davie instructed in 1894 'do not let a scanty supply of tools stop your progress. I have seen wonderful pieces of taxidermy done with a sharp pen-knife, some wire, tow, needle and thread and some arsenic' (Davie 1894: 6).



Fig. 1. Summers' magic touch. Photograph copyright Andrea Roe

We adopted this ethos of revival and repair in our respective engagements with taxidermy specimens and zoological collections. Taking our lead from Summers we have worked intimately with individual specimens to recover and revive the entangled natural and cultural geographies of their making and continued maintenance. Our received understandings of taxidermy were destabilized through observation and participation: we began to see the specimens Summers worked on as active assemblages of animal parts, sculptural materials and craftwork. Following Ingold (2006, 2007) we want to avoid anthropocentric logic: rather than fetishistically attribute life externally to zoological specimens, we prefer to view zoological specimens as 'in life'. Patchett (2008) has indicated that Ingold's form of relational ontology, where materials are viewed as active constituents in a 'world-in-formation', offers an understanding of the artefact as process whereby material entities are figured as active assemblages of the movements, materials and/or practices which brought them into existence (Ingold 2006: 12).

We assert that such a view circumvents a focus on the representation of zoological materials as 'finished' objects in the present day, allowing us instead to recover the past and emergent practices and relationships that produced and maintain them. As the next section will show, however, there is a gap between our desire to revive old specimens and the obvious alterity of both their former 'real' lives and even their 'after-lives'. Rather than respond negatively to this sense of loss and alterity we draw creative force from absence and incompleteness. Much depends therefore on an ability to improvise and on the recognition that, to quote Graham and Thrift (2007: 6), 'repair does not have to mean exact restoration'.

The following sections outline two different experiments in historical repair, involving the intrusion of geographical ideas and artistic practice into zoological spaces. The first section concerns repair-work on object history, offering an expanded repertoire of interpretation and engagement for an extremely rare zoological specimen.

Repair work 1: the object(ionable) histories of the Blue Antelope

Preciousness is often defined by rarity. By this criterion, hardly anything in natural history can be more valuable than a scrap of blaauwbock – and blessed be the curator who has one to show. (Gould 1996: 278)

But the rags, the refuse - these I will not inventory but allow, in the only way possible, to come into their own: by making use of them. (Benjamin 1999: 23)

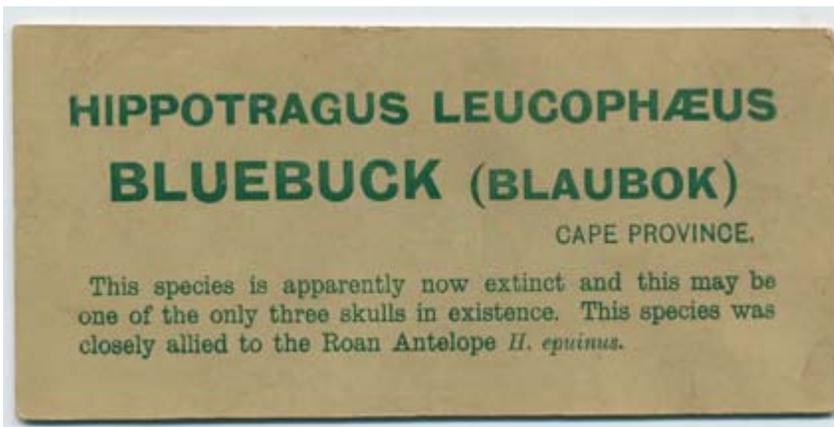


Fig. 2. Hunterian Zoology Museum specimen label, not in current use. Photograph copyright Hunterian Museum and Art Gallery, University of Glasgow.

Investigation into the Blue Antelope, or bluebuck, charted the diverse lives of an extinct antelope that formerly lived in South Africa. This work stemmed from the presence of an exceptionally rare skull of the animal held in the University of Glasgow's Hunterian Museum zoological collection, which despite its significance, had a very slight museum record. The project originated through a Leverhulme Trust funded artist's residency, with cultural geographer Hayden Lorimer as project applicant, including (apart from ourselves) the museum curator (Maggie Reilly) and historical geographer Starr Douglas. Here we concentrate on the creation of a revitalized object history for the 'Glasgow' skull, the aspect of the project we most closely collaborated on.

Stephen Jay Gould has exclaimed 'blessed be the curator' who has a remnant of the blue antelope (1996: 278). We learned that the Glasgow Hunterian collection had a whole skull – one of only two skulls that are thought to exist. However, to our frustration we also found that there was no 'object history' for the skull, that is a record of its provenance and credentials.

The skull was, however, documented by a striking series of photographs from the 1960s, and the museum retained correspondence with Dr Erna Mohr. Further scribbled notes guesstimated the date of the skull's acquisition to the collection – 'came between 1822-1900' – with some other sparse details relating to the skull's recorded history in the museum collection.

The skull itself however was on loan to the Royal Scottish Museum in Edinburgh where it was displayed alongside other remnants of extinct animals. The only information accompanying the skull behind protective glass was a label stating that the species *Hippotragus leucophaeus* had once populated the Cape Province before being made extinct by 1800 through hunting. Taken overall, this seemed like a remarkably scanty record for such a precious specimen. Our frustration was shared by the curator who realized that if the specimen was authentic it was possibly part of the original Hunter collection, making it a doubly rare piece.



Fig. 3. Blue Antelope skull, Hunterian Zoology Museum. Photograph taken by R. Stevens in 1967, copyright Hunterian Museum and Art Gallery, University of Glasgow.

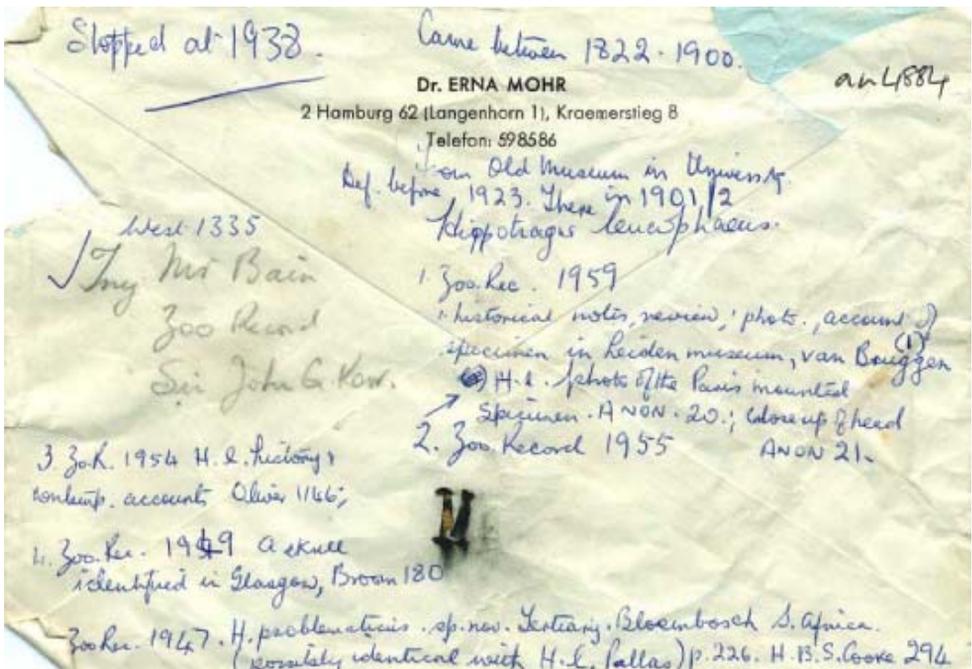


Fig. 4. Back of the envelope that held a letter by Dr Erna Mohr to the Hunterian Zoology Museum. Image copyright Hunterian Museum and Art Gallery, University of Glasgow.

The project developed by making use of the other existing remnants of the animal; we constructed an expanded repertoire of interpretation and engagement for the bluebuck beyond the immediacy of the 'Glasgow' skull and its partial object history. This process required reference to zoological and archaeological literature. We found that colonial trade in natural history specimens meant that all the historical remains we could trace were held in European zoological collections (Mohr 1967, Rookmaaker 1992).³ Different kinds of analysis gave more or less certainty about its species identity. The skull is definitively of the Hippotragine family, which includes the endangered roan and sable antelopes as well as the blue antelope. Three out of four scientific papers concerning the skull (Broom 1949, Mohr 1967, Groves and Westwood 1995; *contra* Klein 1974) allocated it to *Hippotragus leucophaeus* (blue antelope) but we learned that expertise in comparative anatomy is now hard to find. Furthermore, comparative DNA analysis that was initiated through the project yielded no result.

Learning about this scientific work did not tease out 'facts' about the blue so much as reveal arenas of uncertainty - as cultural geographers and artist, we dwelt on the ambiguity that vexed zoological colleagues, who would regard much of the blue antelope's history as unrecoverable. Both historical records dating from the era of exploration of Southern Africa in the eighteenth century and later commentaries gave a most partial history. There was considerable inconsistency, for example, in explaining the animal's colour (see Cuvier 1827, Renshaw 1904) and very little indeed is known about its behaviour. However, the beauty and the rarity of the animal was often repeated. To our knowledge all records of the animal while it lived were made by European travellers and colonists. Full details are given on the website described below; in sum blue antelopes were first recorded by European naturalists in 1719 and were finally wiped out by 1800. This was a very short era in the species' lifespan that, alongside people, had colonized the Cape after the last glacial period. A small triangle of land in the Cape formed its last range (Klein 1987, Rookmaaker 1992). Coincidentally this was also the first area to be settled by farmers of Dutch descent.



*Fig. 5. The type specimen of Blue Antelope with colour chart, 2006.
Photograph copyright Kate Foster/Naturalis.*

Recent academic work from various fields has attempted to reinvigorate the notion of object histories/biographies. However while 'things' are said to have biographies (e.g. Kopytoff 1986, Gosden and Marshall 1999), they have largely been used in academic research to help tell

stories about the people who collected them or the institutions that encased them: 'we are looking from the standpoint of the object but, we are looking *at* people' (Alberti 2005: 561, original emphasis; see also Hoskins 1999, Barringer and Fynn 1998, Gosden and Knowles 2001, Hill 2006a, 2006b). By contrast we sought to look at the animal from the standpoint of its fragmentary material remains, complementary to, but separate from, biological enquiry. As Garry Marvin has highlighted, the majority of zoological specimens 'do not begin to have a recoverable history until their final fatal encounter with humans' (Marvin 2006: 157). Therefore, following Erica Fudge (2002), it is difficult to avoid slipping back into anthropocentrism when recovering the histories of such animals because their remainders have been constructed or assembled by humans. Thus before the project had even begun it was already, to invoke Derrida *sous rature* – under erasure (Derrida 1976).

However, we experienced that there is creative and emancipatory force to be drawn from working *sous rature* (the idea that what is being attempted is impossible yet still essential). This became apparent when we visited the Blue Antelope specimen in Naturalis, Leiden. Unlike many other taxidermy mounts,⁴ the Leiden specimen had a detailed object history that had been pieced together by two curators (Husson and Holthuis 1969) at the Rijksmuseum van Natuurlijke Historie, as Naturalis was formerly known. The curators accounted for the specimen's 'career' from acquisition to its display and use within the museum; careful sleuthing was required to piece together the specimen's movements between eighteenth century Dutch collections, travelling by canal. This work was largely done in order to disprove Erna Mohr's (1967) suggestion that the Leiden specimen could not be demonstrated to be the one described as 'type' for the species.⁵ While we were pleased that such a detailed record existed for the specimen, we worked on the specimen's importance beyond zoological science, reversing an inward looking logic into the inventories of museum accessions. Viewing the specimen itself offered a different mode of interpretation. Importantly, staff at Naturalis not only greatly valued the specimen for its zoological status as type specimen of an extinct species with precious few remains, with a clear object history, but also because it was an example of early and outstanding taxidermy.

We considered how to make creative use of the Naturalis specimen's extraordinary situation of representing an entire lost species, as type specimen. Photography had not been invented at the time of the blue antelope's demise, meaning that representations made while the species was alive were drawings, though possibly of animals recently shot dead (Le Vaillant, 1796).

Our preconceptions about its appearance were therefore oddly-shaped. When we



Fig. 6. Visit to Blue Antelope specimen at Naturalis, Leiden, 2006.

Photograph copyright Kate Foster/Naturalis.

encountered the 'animal' – in the skin if not the flesh – the enlivening effect of bodily presence intensified our desire to revive this long-dead creature.⁶

Fleeting flashes of liveliness were extinguished by the obvious marks of material manipulation: 'pieces gone skew whiff, skin stiffened, seaming scars stretched wide, ageing needlework stood proud and vivid' (Foster and Lorimer 2006). Recognizing that the specimen had been thoroughly 'manhandled' illuminated the ultimate alterity of this species' prior 'real' life. Yet rather than view the entropy of the Blue Antelope mount as a dead-end we considered this 'a generative death'. Caitlin DeSilvey (2006: 329) has argued that 'the



Fig. 7. Sketch by Kate Foster of a Blue Antelope, following that made in 1778 by the explorer and traveller Robert Jacob Gordon. Copyright Kate Foster 2006.

disarticulation of a cultural artefact [can] lead to the articulation of other histories' and the disarticulation of taxidermy specimens can reveal evidence of the lived acts of their making and thus Patchett considers them as historical witnesses to how taxidermy was practiced in the past (Patchett 2008).

While we could not physically disarticulate the Leiden specimen to get at its hidden artifice we knew from Husson and Holthuis' paper that it had been set up by the skilled Dr Klockner.⁷ As we knew from observing Summers' practice, taxidermy is premised on one's ability to respond creatively to what is (in the Heideggerian sense) 'ready-to-hand', emphasizing the importance of improvisation in the process (see Graham and Thrift 2007: 2). This improvisation was even greater at the time the Leiden specimen's was made; Dr Klockner would possibly have never seen a living blue antelope and would have had to 'make-do' with the materials and references that were available to him.

We echoed this taxidermic manner of experimentalism in our own repair-work. Rather than seeing the specimens as objects in isolation, we re-presented them in combination (along with other recovered materials recording something of the blue antelopes' existences) by making an online archive, or 'web-archive'. The absence of conventional empirical and archival evidence has encouraged a growing number of historical researchers to extend, disaggregate and distribute the once centred version of the archive and so have found greater licence to salvage, assemble and rehabilitate diverse forms of historical record (e.g. Benjamin 1999, Buchli and Lucas 2001, Lorimer and MacDonald 2002, Neville and Villeneuve 2002, Edensor 2005, DeSilvey 2006, 2007, 2008). The deliberate accumulation of diffuse historical fragments to form unconventional archives has been described by Lorimer (in press) as a form of 'make-do' method. Lorimer asserts that

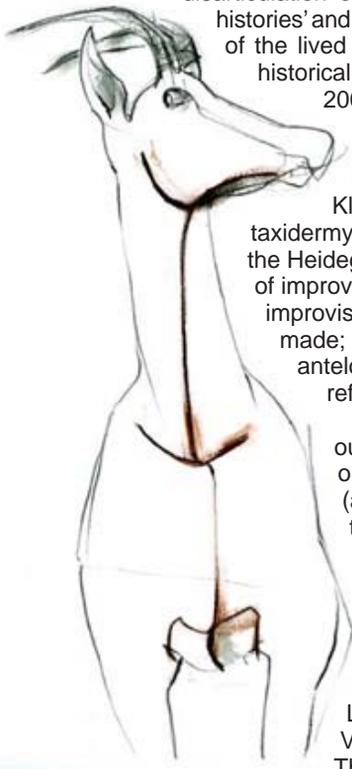


Fig. 8. Drawing from A Geography of Blue (Foster and Lorimer 2006).

'making-do' must be understood as an adaptive mode of inquiry where 'the massing of remainders, redundant objects, fragments and discarded substances dating from the past offers a renewable resource for the undertaking of historical research' (in press). While bringing seemingly unconnected materials into correspondence requires processes of 'manipulation, description, displacement' on the part of the researchers, we follow Lorimer's argument that the purposeful assemblage and rehabilitation of diverse and partial historical remains to form unorthodox archives holds both significant creative and political potential (DeSilvey 2007: 416). Not only do such assemblages insist upon more imaginative styles of composition and expression, but they can also assist in the recovery and construction of pasts and aspects of pasts that may be veiled or suppressed by more dominant and conventional forms of historical record. Furthermore, artistic and academic experimentation in 'artful-inventory' highlights the emancipatory potential of ad-hoc archiving as mode of presentation (DeSilvey 2008: 878; see for example Coles and Dion 2001; Deller and Kane 2005; Snæbjörnsdóttir and Wilson 2006; <www.meansealevel.net>). Such creative re-workings of the archive manage to subvert the archive's claim to authenticity and preservation while at the same time holding on to it as 'an imperfect but precious means of accessing [and presenting] a lost past' (DeSilvey 2008: 894). Such work is therefore alive to the alterity of past lives (human or otherwise) and events, recognizing that what remains of them is always going to be partial, provisional, incomplete and, therefore, that what is being presented is always already under erasure.



Fig 9. Type specimen of Blue Antelope at Naturalis, Leiden." Photograph copyright Kate Foster/Naturalis.

The unconventional web-archive we created for the blue antelope presented something of the animal and its diverse afterlives (and our involvement in their construction) whilst also expressing that these were and will continue to be *sous rature*. Using the domain name



Fig. 10. Head and eyes of a mounted specimen in the Natural History Museum Vienna. Photograph copyright Kate Foster/Natural History Museum Vienna.

<www.blueantelope.info>, the material was organized into the following headings: Viewpoints; The Animal; Afterlife; and Habitats. Rather than reinsert the animal remnants into a new form of stable and ordered significance, we drew on ambiguity. A montage of the animal's material remnants (in a form of image-bank) stood alongside information we had collated about them individually and collectively, from all possible sources. As a mode of presentation, montage (taken from the French *monter* meaning 'to mount') reflects our adoption of some aspects of the practice of taxidermy (i.e. we wanted to

present something of the whole animal using its fragmentary remains) whilst at the same time not claiming to authoritatively represent it (Doel and Clarke 2007: 890). As our interpretation of taxidermy practice did not centre on achieving perfection, it meant our 're-assembly' of the blue antelope could be playful and provisional. The website also details other outcomes of the project including events and presentations and uses artistic licence to make contemporary connections.

Notably, the blue antelope's former vegetation habitat (renosterveld) is now also endangered (Krug *et al.* 2004). On a practical note, we found that lively discussion occurred through direct contact, but rarely via the website – in part because the blue antelope has largely been forgotten in South Africa as well as Europe (Klein 1974) - so an interactive element was dropped. It was designed with small images, less energy-hungry, and usable on the lower bandwidths to be encountered in South Africa. A later study visit showed that online resources in that country were less accessible than expected, certainly outwith major institutions.



Fig. 11. The Blue Antelope specimen at the Natural History Museum Vienna. Photograph copyright Kate Foster/Natural History Museum Vienna.

The web-archive not only provided new ways for people to look at and engage with the few remains but also offered a compilation and digest of knowledge about the animal which had previously only been scattered across discrete museological communities and zoological periodicals. This is in tune with Suzanne Keene's recent observation that work on museum collections 'may address the understanding of objects themselves or it may tackle questions of broader significance, using objects as evidence of history or cultural practices' (2005: 45). For us, at least, the steady accumulation of knowledge and the process of re-presentation opened up a dialogic space whereby awkward but more pressing geographical questions could be asked: 'By which world should the blue antelope be known? By what territorial arrangement should we place it? And according to whose voice, language, values?' (Foster and Lorimer 2006). What happened to the blue antelope in life and death, and between dates and locations, can spark interest and prick consciences: suggesting stories to be told according to site, situation, circumstance and social relation. It was productive to think about the blue antelope as being comprised from an assemblage of past and present movements, looking at it 'in life' (Ingold 2006, 2007). In offering an assemblage of views of the animal in life and death, our aim was to ensure that this remained open to further creative acts of understanding.

One outcome of this project was the instatement of the blue antelope skull in the permanent display of the refurbished Hunterian Museum, the specimen's most recent physical relocation and elevation in museological status. An opportunity for further generative research presented itself in the form of a position of artist-in-residency at Stellenbosch University in the Cape of South Africa, close to where the last blue antelopes lived.



Fig. 12. Soetmelksvlei, near Greyton, Cape Province, 2007. This was where Le Vaillant (1796) recorded shooting a Blue Antelope, in the animal's last ranges. Photograph copyright Kate Foster.

This further work by Foster emphasizes some of the postcolonial complexities surrounding this specimen. The Taxidermy Working Group of the International Committee for Museums and Collections of Natural History suggested that museums should value 'exotic' specimens and be inventive in how they are displayed, considering their importance to 'source' communities (<<http://icom-nathist.de/icom/nh-wk1.htm>>). In Cape Province, such an invocation was strongly imbued by *sous rature*. From the outset, we realized that indigenous languages in this area were no longer spoken, and soon found few people know blue antelopes ever existed - what exists is concentrated in the realms of academic archaeology and biology. Cultures have been extinguished, and the eradication of Khoi and San people in Southern Africa, who lived alongside the blue antelope is a particularly shameful story (see Skotnes 1996, Skotnes 2007). The only non-European name for the antelope recovered to date is from Lichtenstein (1812), who recorded a 'Khoosa' term, *iputhi*. We do not advocate ethno-zoological study, rather we illustrate the complexities of attempts of putting historical zoological specimens to contemporary use. Still, it was not enough to simply communicate knowledge between different disciplines. Wicomb, a South African novelist living in the UK, offers inspiration. She has referred to a need to write in a realist mode, and at the same time not impose order on reality; '[P]recisely because there isn't order, there is conflict and that's not only in the South African situation... I think it's important to have chaos on the page' (Wicomb 2001:251). As Foster and Lorimer (2006) articulated: 'Any distinction made between the spheres of the personal and the cartographic is, of course, a fiction. The relative positions of centres and peripheries in the blue antelope's biography are at once confirmed and unsettled by our collaborative actions of seeing and narrating'.

Repair work 2: an exhibition *Out of Time*

... their existence in themselves reverberates with a menacing excess allowing for potential monstrosities to be enacted. (Dewsbury 2000: 491)

This section documents a cross-disciplinary temporary exhibition of work within a zoological museum. We explain the characteristics of the museum, and the contribution each piece made, in order to show how this too can be considered a work of 'repair'.

The Hunterian Zoology Museum is embedded within the Environmental and Evolutionary Biology Department of Glasgow University and is open to the public. It also plays an important role in the department's teaching and learning programmes that ensure the collections are routinely used and added to. The exhibition *Out of Time* took place at the Hunterian Zoology Museum in June 2007 as part of the Glasgow Science Festival. This drew on sustained interdisciplinary relationships and was a practical outcome of different artistic practices (Foster, Roe, and Brice) and geographic investigations (Patchett and Lorimer) into ways that zoological collections can be reactivated, obviously from a cultural rather than biological point of view.⁸ Each exhibitor teased out an aspect of a specimen's entanglement with human activity, both present and past. The craft of taxidermy gave a frame for providing information as well as artistic departure point for surfacing the invisible work behind the making and maintenance of zoological collections.

Production was achieved on a shoe-string budget, necessitating the creative use of existing resources and materials and cross-disciplinary knowledge and expertise. This 'lo-fi' production risked disappointing audiences used to exhibitions employing brand-new media and materials from the contemporary globalized economy. Yet we became loyal to a 'make-do' approach to production because exhibits could be quietly inserted in keeping with the aesthetic of a Zoology Museum that was last refurbished in the 1970s. Facilitated by the curator, Maggie Reilly, we ensured that the inserted pieces offered a new 'take', yet also renewed interest in the existing displays. Reilly, constrained by resource allocations, welcomed the expanded use of the collections and additions to the museum's display. Reciprocity was at work here: our research fed into Reilly's knowledge of object histories and her expertise helped us (used to working with academic and arts audiences) tune the exhibits towards a general public. The exhibition was more than an exercise in interpretation, as the artists could work with the tools of their trade: humour, metaphor and irony (Dion 1997). We stated that we were 'looking at those fine lines between life and death, nature and culture, the artificial and the real'. But we also consciously created an interdisciplinary space in which to transgress those lines sometimes drawn between fine art and visual communication, geographical and artistic practice, sculpture and taxidermy. The collaborative work suspended criteria imposed from our respective disciplines in favour of a supportive search for shared interests and values. This could only happen through committed voluntary effort – and because it was enjoyable.



*Fig. 13. Under construction.
Image copyright Merle Patchett.*

Each exhibit showed something taken *Out of Time* in a different way, offering different realities and possibilities of animal lives. We used the museum layout strategically to make juxtapositions and to offer 'intimate encounters' within the taxonomically systematic arrangements. Bonnell and Simon (2007: 66) describe the notion of an intimate encounter as 'an exhibition experience which offers visitors the potential for insight that may support new ways of relating with and within the world around them'. Simply put, we wanted to offer visitors new ways of relating to a zoology museum and its collections and, more specifically, to emphasize the potential of working intimately with the unique histories of individual specimens. The rationale of acquisition by zoological museums is scientific, but specimens also acquire cultural value which is often reflected by the institutions through the cultural importance of the collector or more perversely by the increasing rarity of the animal it represents. As Poliquin (2008 in this issue) outlines, some museums are recognizing the potential untapped cultural value of their zoological collections. However, in representing them as 'cautionary tales, biographic memorabilia or as relics from past generations' they merely move from using them as static props for natural history to recasting them ossified relics embodying particular historical ways of seeing nature. Our collective aim was to amplify the polysemy of selected specimens through a critical engagement with the complex histories of the zoological specimens and collections on display. Contained within these displays are pasts and practices that are both 'inspiring and despairing' and we wanted to communicate this (Bonnell and Simon 2007: 65). We each had to step beyond theoretical critique or intervention and ask what it was we wanted to communicate, what exploration did we want to encourage, and what did we want to subvert? We now provide details of selected exhibits.

Intimate encounters: practical taxidermy - work *Out of Time* by Merle Patchett

When packing specimens of antelope, etc., for sending home, it is always advisable so far as possible to pack the skins separate from the skulls and horns. It is generally far better to attend to the preserving of your own specimens, than to trust to native agents or servants; if you are compelled to trust to them at all, never sanction the use of lime in the materials they employ, even in small constituent. (Ward 1880: 21)

Taken *Out of Time* and context, Patchett mused whether period taxidermy manuals could offer insights into the past practice of taxidermy. A range of manuals were presented: Rowland Ward's *A Sportsman's Handbook* (1880), Montague Browne's *Practical Taxidermy* (1878), the British Museum's *Handbook of Instructions for Collectors* (1904), and John Rowley's *Taxidermy and Museum Exhibition* (1925). When presented together and alongside the other exhibits the texts offered a historical frame for both the exhibition and the museum's taxidermy collections. The range of texts also gave insights into how taxidermy was practiced differently in the past: from trophy collection and preservation, to amateur natural history enquiry, to elaborate museum modelling. Texts like Ward's *Handbook* also made reference to the more problematic legacies of the craft.



Fig.14. *Skinning a tiger. From Ward 1880.*

Ward's book was left open at a page which presented a striking image of the tiger being 'stripped'. While the image itself is arresting, Patchett was interested in conveying what it failed to show. The set of ghostly disembodied hands, while alluding to the skilled hand-craft required for skinning a carcass, are misleading in terms of exactly whose hands were doing the work. Contrary to Ward's advice above, it was usually indigenous field attendants who

actually performed the task of skinning and preserving kills. The image also fails to portray just how difficult it would have been to strip a large mammal like a tiger in the heat and with basic equipment. Speed, dexterity and a strong stomach would have been vital for ensuring the preservation of the coveted skin before the process of decay took hold so large teams of attendants were often employed. A skinning knife was displayed alongside the manuals to add a sense of menace, helping people to imagine the process which had been applied to permanent displays of mounted animals elsewhere in the museum.

***Paddling Gull/Kingfisher* – work *Out of Time* by Andrea Roe**

Andrea Roe worked with the taxidermist Peter Summers as Leverhulme artist-in-residence in the 'Department of Natural Sciences' at the National Museums Scotland, and introduced us to this practice. She herself explored the correspondences between her artistic practice as a sculptor and the craft of taxidermy.⁹ Working alongside a taxidermist gave her a deeper appreciation for the great skill it takes to successfully separate a skin from a body and rearrange it in lifelike form. Taxidermy is a practice often thought of as macabre and gruesome, yet Roe, through her time spent working alongside Summers learning the craft, recognized that there is something poetic if not beautiful about transforming dead animals into specimens that appear to be alive. Roe therefore concerned herself with capturing these critical moments of the process. She presented two of the outcomes of her residency at *Out of Time – Paddling Gull* and *Kingfisher*.

Paddling Gull was produced in collaboration with Peter Summers and Darren Cox (clock maker at the NMS). Crossing the traditional mimetic crafts of taxidermy with mechanical and electronic design, the team produced *Paddling Gull* - a hybrid of an authentic Herring Gull skin, taxidermy bird body and animatronic legs. This modified Herring Gull demonstrated foot-paddling: an activity particular to birds where they paddle the ground to imitate rain bringing worms to the surface which they subsequently eat. The gull



Fig. 15. 'Paddling Gull' test. Image copyright Andrea Roe.

was programmed to 'perform' every 15 minutes. Christa O'Keefe commented that 'there's something both touching and comical about the frantic tap dance and blank animal look of succumbing to instinct, as well as surreal to see "outdoor" behaviour practised in a bare plexiglass display in an institution filled with dead things' (O'Keefe 2007). Roe's rationale for creating 'little monsters' like *Paddling Gull* is that they are a visual and sensory means for revealing moments of nature to a museum public, acknowledging that 'it's rare for a human to be there at the right time' (O'Keefe 2007). Thus, while Roe's works are not human in either their technological or biological components, they still powerfully evoke our 'essential human-ness by bringing together our scientific knowledge of the natural world, mastery of invention, and marvellous ability to invest symbolic meaning in objects and experiences' (O'Keefe 2007).

Roe also presented *Kingfisher*, a video which depicted Summers' mounting kingfisher skin. Roe was keen to convey to a wider audience that taxidermy can be a delicate and creative practice. The film shows hidden aspects of taxidermy: the great skill it takes to remove a skin from a body and rearrange it in lifelike form, the tenderness with which dead bodies were



Fig.16. Still from Andrea Roe's film Kingfisher. Image copyright Andrea Roe.

handled, and the tension between life and death held throughout the process. Eric Laurier has written that 'magicians warn us off an interest in the mechanics of their tricks that might spoil the thrill of what is dramatically presented to us' (2004: 377), in which case Roe's revelation that taxidermy specimens are assembled from well-practised techniques could have reduced the mystery and ambiguity of the other taxidermy specimens on display. On the contrary, we found that watching Summers' perform his 'tricks' on a kingfisher skin wakens you to the magical moments

of skilled taxidermy practice while also offering the viewer a resource from which to wonder about hidden processes that brought the other specimens to their finished form behind glass.

BioGeoGraphies and the BIOGRAPHY OF A LIE – work Out of Time by Kate Foster

Kate Foster showed a résumé of previous work from the collections, dating from 2002. *BioGeoGraphies* is the main current of her artwork, being a series of interventions in the afterlives of zoological specimens requiring cross-disciplinary and collaborative work. Environmental issues act as points of departure for works that draw out complexity and complicity in polarized issues. In *Disposition* (2003) she explored the ongoing persecution of birds of prey in the interests of game shooting. The project involved taking a museum cabinet skin of a hen harrier to the place where it had been killed in 1921, on the Duke of Westminster's Estate in North West Sutherland. The cabinet skin of a female bird, whose plumage is camouflaged for ground nesting, was laid on a swatch of tweed donated by Westminster Estates. Traditionally, hunters and ghillies wore tweed specifically designed to match the plant cover on individual Highland Estates, thereby improving their own camouflage.

A second component of this *BioGeoGraphy* of a hen harrier departed from the source stated on the museum label: Reay Forest. Foster photographed the hen harrier specimen exactly on the point now marked on maps as Reay Forest. This point is now a spruce plantation where harriers actually cannot nest – and indeed, the term 'deer forest' as used in Scotland is confusing because it refers to open moorland.



Fig.17. Photograph entitled 'Disposition 2', Kate Foster 2003. Copyright Kate Foster/Hunterian Museum and Art Gallery, University of Glasgow.



Fig. 18. Photograph entitled 'Disposition 1', Kate Foster 2003. Copyright Kate Foster/ Hunterian Museum and Art Gallery, University of Glasgow.



Fig. 19. 'Egret/Powder Puff' exhibit, modelled by a Hunterian Zoology Museum specimen, from the series 'BIOGRAPHY OF A LIE', Kate Foster, 2002. Copyright Kate Foster/ Hunterian Museum and Art Gallery, University of Glasgow.

This reworking of the unique history of the hen harrier specimen relied on its context, and also the background knowledge of its targeted audience, to bring out the various references made in its representation. Apart from Blue Antelope (already described in this paper), her *BioGeoGraphical* work includes collaborative work with Hayden Lorimer, *Cross-Bills*, and ongoing work on a swallow specimen carried on its former migration route to South Africa in a Boeing 747.

Other artwork shown by Foster included a mounted bird (a museum specimen) sporting body jewellery. This body jewellery was inspired by Victorian fashions and the birds' natural history, and reworked the history of the Victorian plumage trade which endangered certain species. The title the *BIOGRAPHY OF A LIE* came from an anonymous pamphlet issued by the Royal Society for the Protection of Birds in 2003, fulminating on the hypocrisy of a trade where shopkeepers and their customers collusively labelled real feathers as 'fake', to avoid moral retribution.

Feedback in the comments book suggested that in combination the exhibits could awaken curiosity and reflection:

Fascinating range of bookworks – 'biography of a lie' really thought provoking – I love the range and ambition. So many thoughts swirling round my mind – made me see and think about the other exhibits in this room in greater depth – makes me want to find out about their stories.

Great work. Intriguing, funny, thought provoking. And, I had forgotten what a great wee museum this is.

It was very interesting it made me think about the other exhibits. I wasn't fond with the video on how you stuff birds. But it was really amazing a day I'll never forget.

Conclusion

An experimental engagement with taxidermy practice, an object history (of the skull of an extinct animal, the blue antelope), and a display (the temporary exhibition in a university zoology museum) have acted as means to 'repair' the afterlives of specimens in collections now marginalized (Graham and Thrift 2007). Initially, in order to challenge the priority given to the representational surface in other academic and artistic engagements with taxidermy and zoological collections, we drew inspiration from observing the excellent taxidermy practice of Peter Summers. Surfacing the invisible work behind the making and maintenance of zoological specimens and collections allowed us to view specimens as 'in life' and, therefore, refocus on recovering the past and emergent practices and relationships that produce and maintain zoological specimens and collections in our experimental repair works (Star 1999). Reflecting Summers, we sought to work intimately with individual specimens, to revive them by restoring them within entangled natural and cultural geographies of their making and continued maintenance. Yet as the example from blue antelope project showed, there was a gap between our desire to revive the blue antelope's material remainders and the obvious alterity of both the species former real life, and also the afterlives of its material remains. Rather than respond negatively to this sense of loss and alterity we sought draw creative force from working *sous rature* (Derrida 1976) and from the understanding that 'repair does not have to mean exact restoration' (Graham and Thrift 2007: 6).

The creation of a revitalized object history in the form of a web-archive marked a willingness on our part to work with ambiguity and alterity. Our objective was not to simply piece the fragments of the blue antelope back together, but instead to 'trace out the threads and follow their convolutions' to emphasize the animals' importance beyond the annals of museum collections and zoological science (Pile 2002: 116). We avoided examining the blue antelopes' material remains as objects in isolation and instead re-presented them in combination with other recovered sources referring to aspects of their existences. We therefore presented a montage of blue antelopes' past lives and the entangled cultural and natural geographies it once and still does inhabit, to move past 'an entirely negative reading of [their] material dislocation and dissociation' (DeSilvey 2006: 318). This was in response to a sense of something missing, wanting more from the ways that the blue antelope was presented by the museums where the priority was to (separately) authenticate and preserve the specimens' as rare examples of an extinct yet distinct species. Overall, the web-archive offers an expanded repertoire of interpretation and engagement for the blue antelope, whilst ensuring that what is presented remains open to further creative acts of understanding.

Similarly, the exhibition *Out of Time* drew on combined cross-disciplinary perspectives to amplify the polysemy of the specimens we re-presented. Zoological specimens (and their histories and geographies) inhabit the 'blurred terrain where nature and culture and not so easily (as if they ever were) distinguished and dichotomised' and we sought to communicate this (Harrison *et al.* 2004: 9). More specifically, we wanted to emphasize the potential of working intimately with the unique histories of individual specimens to elicit different kinds of knowledge and viewpoints about them beyond the biological sciences. The series of 'intimate encounters' we set up within in the museum used the existing exhibits to renew interest in them, while also offering transformative critique (Bonnell and Simon 2007). In sum our collaborative efforts on *Out of Time* suspended criteria imposed by our respective disciplines allowing us to invite a zoology museum audience to re-engage with taxidermy both as a practice and as a route of entry into specimens' natural and cultural entanglements.

Taken overall, our efforts to get under the skin as artist and geographer might tell us as much about ourselves and serve our own disciplinary interests. The graft of tracing 'the patient

readjustments by which the conquest of animated nature had been attained' (Wells 1935: 75) required that we move between disciplines. Sharing these excursions meant we had to articulate our respective starting points and areas of ignorance, animating our enquiries with critical reflexivity and facilitating outcomes that would have not otherwise have occurred. The work described here has been cross-disciplinary, but also has served to position ourselves within our disciplines – as geographer, as artist. This paper argues both the case for reflecting upon the behind-the-scenes work we are all involved in and the worth of reclaiming the 'mess' that brought specimens to their containment and apparent stasis behind glass (Star 1992). In our experience, the mess, in itself, can have unexpected and transformative potency.

Received 6 March 2008

Finally accepted 23 August 2008

Notes

- ¹ Taxidermy specimens are also increasingly being sent to incinerator for health and safety reasons as many old specimens contain high trace levels of arsenic as it has been historically used as a preserving agent (Marte, Pèquignot and Von Endt 2006).
- ² The recognition of mutual interest and possibility for shared enquiry between environmental artist Kate Foster and historical-cultural geographer Merle Patchett had emerged through Foster's residency in the geography department of the University of Glasgow where Patchett is based.
- ³ The other skull identified as Blue Antelope is held in the Amsterdam University Collection, the Netherlands. Four mounted specimens exist; we have seen two – those at Naturalis, the Royal Museum of Natural History in the Netherlands, and the Natural History Museum in Vienna. A further two mounts exist, in Uppsala, Sweden and in Paris, France. Some fossilised remains have been found closer to where the animal last lived (Klein 1974).
- ⁴ Such detailed object history files for zoological specimens, even in such historic and well-managed collections such as Naturalis, are considered 'gold-dust' in the museum world. In a conference organized by Naturalis in May 2001 to address the problem of missing information for zoological collections Pat Morris, argued in paper entitled 'Lost, strayed and still looking: tracing some examples of ancient taxidermy' that many taxidermy specimens come without documentary records and thus lose much of their significance.
- ⁵ Curators Husson and Holthuis presented a crucial receipt for transport and victuals in the paper that recorded the transport of the specimen from a collection in Haarlem (where the naturalist Pallas had originally described the species 1766) to Naturalis in 1842, thus proving its authenticity as type.
- ⁶ An unpublished artist's book by Foster and Lorimer (2006) was entitled *A Geography of Blue*, and Lorimer's narrative reworks ideas of cultural geographers into creative text which articulate our shared experience. This text accompanies Foster's drawings from a necessarily brief visit to a second Blue Antelope mount in the Natural History Museum of Vienna. As well as mediating this shared experience, this artist's book was one route for the 'revival' of Blue Antelope outside the context of natural history.
- ⁷ For obvious curatorial reasons the Leiden mount now inhabits one of many climatically controlled storage rooms to ward off further deterioration of the skin.
- ⁸ For an account of Jethro Brice's artistic practice, see Barker and Macdonald 2006.

References

- Allison, S. W. (1996) Review of K. Wonders (1993) *Habitat Dioramas: Illusions of Nature in Museums of Natural History*, Uppsala: Almqvist and Wiksell, *Isis*, 87, 760–1.
- Alberti, S. J. M. M. (2005) 'Objects and the Museum', *Isis*, 96, 559–71.
- Anderson, B. (2004) 'Time-Stillied Space-Slowed: How Boredom Matters', *Geoforum*, 35, 739–54.
- Baker, S. (2000) *The Postmodern Animal*, London: Reaktion Books.
- Baker, S. (2006) 'What Can Dead Bodies Do?' in Snæbjörnsdóttir, B. and Wilson, M. (eds) *nanoq: flatout and bluesome: A Cultural Life of Polar Bears*, 148–55, London: Black Dog.
- Barber, L. (1980) *The Heyday of Natural History 1820–1870*, London: Cape.
- Barker, R. and Macdonald, M. (2006) *Placed upon the Horizon*, East Kilbride Arts Centre: South Lanarkshire Council.
- Barringer, T. and Flynn, T. (eds) (1998) *Colonialism and the Object: Empire, Material Culture and the Museum*, London: Routledge.
- Benjamin, W. (1999) *The Arcades Project*, Cambridge, Mass.: Harvard University Press.
- Bonnell, J. and Simon, R. (2007) "'Difficult" Exhibitions and Intimate Encounters', *Museum and Society*, 5 (2) 65–85.
- British Museum (Natural History) (1904) *Handbook of Instructions for Collectors*, London: The British Museum.
- Broglio, R. (2005) "'Living Flesh": Animal Surfaces and Art', unpublished manuscript.
- Broom, R. (1949) 'The Extinct Blue Buck of South Africa', *Nature*, 164, 1097–8.
- Browne, M. (1878) *Practical Taxidermy: A Manual of Instruction to the Amateur in Collecting, Preserving, and Setting Up Natural History Specimens of all Kinds*, London: and DiUpcott Gill.
- Buchli, V. and Lucas, G. (2001) *Archaeologies of the Contemporary Past*, London: Routledge.
- Coles, A. and Dion M. (eds) (2001) *Archaeology: Mark Dion*, London: Black Dog.
- Colloredo-Mansfeld, R. (2003) 'Introduction: Matter unbound', *Journal of Material Culture*, 8 (3) 245–54.
- Cuvier, G. (1827) *The Animal Kingdom Arranged in Conformity with its Organisation*, London: Clowes.
- Davie, O. (1894) *Methods in the Art of Taxidermy*, Philadelphia: McKay.
- Deller, J. and Kane, A. (2005) *Folk Archive: Contemporary Popular Art from the UK*, London: Books Works.
- DeSilvey, C. (2006) 'Observed Decay: Telling Stories with Mutable Things', *Journal of Material Culture*, 11 (3) 318–38.

- DeSilvey, C. (2007) 'Salvage Memory: Constellating Material Histories on a Hardscrabble Homestead', *Cultural Geographies*, 14 (3) 401–23.
- DeSilvey C. (2008) 'Art and Archive: Memory Work on a Montana Homestead', *Journal of Historical Geography*, 33, 878–900.
- Derrida, J. (1976) *Of Grammatology*, trans. Spivak, G. C., London: John Hopkins University Press.
- Desmond, J. (2002) 'Displaying Death, Animating Life: Changing Fictions of "Liveness" from Taxidermy to Animatronics, in Rothfels, N. (ed.) *Representing Animals*, 159–79, Indiana: University of Indiana Press.
- Dewsbury, J-D. (2000) 'Performativity and the Event: Enacting a Philosophy of Difference', *Environment and Planning D: Society and Space*, 18, 473–96.
- Dewsbury, J-D., Harrison, P., Rose, M., and Wylie, J. (2002) 'Enacting Geographies', *Geoforum*, 33, 437–40.
- Dewsbury, J-D. (2003) 'Witnessing Space: Knowledge without Contemplation', *Environment and Planning A*, 35, 1907–32.
- Dion, M. (1997) 'Miwon Kwon in Conversation with Mark Dion', in Corrin, L. G., Kwon, M., and Bryson, N. (eds) *Mark Dion*, 7–33, London: Phaidon.
- Doel, M. A. and Clarke, D. (2007) 'Afterimages', *Environment and Planning D: Society and Space*, 25, 890–910.
- Dubow, J. (2004) 'Outside of Place and other than Optical: Walter Benjamin and the Geography of Critical Thought', *Journal of Visual Culture*, 3, 268.
- Edensor, T. (2005) 'The Ghosts of Industrial Ruins: Ordering and Disordering Memory in Excessive Space', *Environment and Planning D: Society and Space*, 23, 826–49.
- Foster, K. and Lorimer, H. (2006) *A Geography of Blue*, unpublished artists' book.
- Foster, K. and Lorimer, H. (2007) 'Some Reflections on Art-Geography as Collaboration', *Cultural Geographies*, 14 (3) 425–32.
- Frank, E. (2008) 'Multimedia taxidermy', *Antennae*, 6, 44-50.
- Fudge, E. (2002) 'A Left-Handed Blow: Writing the History of Animals', in Rothfels, N. (ed.) *Representing Animals*, 3–18, Indiana: University of Indiana Press.
- Gosden, C., and Marshall, Y. (1999) 'The Cultural Biography of Objects', *World Archaeology*, 31, 169-178.
- Gosden, C. and Knowles, C. (2001) *Collecting Colonialism: Material Culture and Colonial Change*, Oxford: Berg.
- Gould, S. J. (1996) *Dinosaur in a Haystack*, London: Cape.
- Graham, S. and Thrift, N. (2007) 'Out of Order: Understanding Repair and Maintenance', *Theory, Culture, Society*, 24 (3) 1–25.

- Griesemer, J. (1990) 'Modelling in the Museum; On the Role of Remnant Models in the Work of Joseph Grinnell', *Biology and Philosophy*, 5, 3–36.
- Groves, C. P. and Westwood, C. R. (1995) 'Skulls of the Blaaubok Hippotragus Leucophaeus', *Z. Säugetierkunde*, 60, 314–8.
- Haraway, D. J. (1989) *Primate Visions: Gender, Race and Nature in the World of Modern Science*, London: Routledge.
- Harding, D. with Buchler, P. (1997) *Decadent - Public Art: Contentious Term and Contested Practice*, Glasgow: Foulis Press.
- Harrison, P. (2000) 'Making Sense: Embodiment and the Sensibilities of the Everyday', *Environment and Planning D: Society and Space*, 18, 497–518.
- Harrison, S., Pile, S. and Thrift, N. (2004) 'The Curious, the Exalted, the Occult, the Passion' in Harrison, S., Pile, S. and Thrift, N. (eds) *Patterned Ground: Entanglements of Nature/Culture*, 15–25, London: Reaktion.
- Hauser, K. (1998) 'Coming Apart at the Seams: Taxidermy and Contemporary Photography', *Make: The Magazine of Women's Art*, 82, 1011.
- Hawkins, G. and Muecke, S. (2003) *Culture and Waste: the creation and destruction of value*, Lanham: Rowman and Littlefield.
- Hill, J. (2006a) 'Travelling Objects: The Wellcome Collection in Los Angeles, London and Beyond', *Cultural Geographies*, 13, 340–66.
- Hill, J. (2006b) 'Globe-Trotting Medicine Chests: Tracing Geographies of Collecting and Pharmaceuticals', *Social and Cultural Geography*, 7 (3) 365–84.
- Hetherington, K. (2004) 'Secondhandness: Consumption, Disposal and Absent Presence', *Environment and Planning D: Society and Space*, 22, 157–73.
- Hetherington, K. (2007) *Capitalism's Eye: Cultural Spaces of the Commodity*, London, Routledge.
- Hoskins, J. (1998) *Biographical Objects: How Things Tell the Story of People's Lives*, London: Routledge.
- Husson, A. M. and Holthuis, L. B. (1969) 'On the Type of *Antilope leucophaea*, Pallas, 1776, Preserved in the Collection of the Rijksmuseum van Natuurlijke Historie, Leiden', *Zoologische Medelingen*, 44, 147–57.
- Ingold, T. (2006) 'Rethinking the Animate, Re-animating Thought', *Ethnos*, 71 (1) 9–20.
- Ingold, T. (2007) 'Materials Against Materiality', *Archaeological Dialogues*, 14 (1) 1–16.
- Keene, S. (2005) *Fragments of the World*, Oxford: Elsevier Butterworth-Heinemann.
- Klein, R. G. (1974) 'On the Taxonomic Status, Distribution and Ecology of the Blue Antelope, *Hippotragus leucophaeus* (Pallas, 1766)', *Annals of the South African Museum*, 65 (4) 99–115.
- Kopytoff, I. (1986) 'The Cultural Biography of Things', in Appadurai, A. (ed.) *The Social Life of Things*, 64–91, Cambridge: Cambridge University Press.

Krug, R. M. *et al.* (2004) 'Reconstructing West Coast Renosterveld: Facilitating the Return of a Highly Threatened Vegetation Type', in Arianoutsou, M. and Papanastasis, V. P. (eds) *Proceedings 10th MEDECOS Conference, Rhodes, Greece*, 1-12, Rotterdam: Millpress.

Latour, B. (2002) 'Morality and Technology: The End of Means', *Theory, Culture and Society*, 19 (5/6) 247–60.

Laurier, E. (2004) 'The Spectacular Showing: Houdini and the Wonder of Ethnomethodology', *Human Studies*, 27 (4) 377–99.

Le Vaillant (1796) *Travels from the Cape of Good-Hope, into the Interior Parts of Africa*, trans. E. Helme, London: William Lane.

Lichtenstein, M. H. C. (1812) *Travels in Southern Africa in the Years 1803, 1804, 1805 and 1806*, trans. A. Plumtre, London: Colburn.

Lorimer, H. (2005) 'Cultural Geography: The Busyness of Being 'More-than-Representational'', *Progress in Human Geography*, 29 (1) 83–94.

Lorimer, H. (2007) 'Cultural Geography: Worldly Shapes, Differently Arranged', *Progress in Human Geography* 31 (1) 89–100.

Lorimer, H. (2008) 'Cultural Geography: Non-Representational Conditions and Concerns', *Progress in Human Geography*, 32 (1) 1–9.

Lorimer, H. (in press) 'Caught in the Nick of Time: Archives and Fieldwork', in Crang, M. *et al.* (eds) *Handbook of Qualitative Methods in Human Geography*, London: Sage.

Lorimer H. and MacDonald, F. (2002) 'A Rescue Archaeology, Taransay, Scotland', *Cultural Geographies*, 9, 95–103

Marte, F., Pèquignot, A. and Von Endt, D. W. (2006) 'Arsenic in Taxidermy Collections: History, Detection and Management', *Collection Forum*, 21 (1–2) 143–150.

Marvin, G. 'Perpetuating Polar Bears: The Cultural Life of Dead Animals' in Snæbjörnsdóttir, B. and Wilson, M. *nanoq: flatout and bluesome: A Cultural Life of Polar Bears*, 156–65, London: Black Dog.

McCormack, D. (2002) 'A Paper with an Interest in Rhythm', *Geoforum*, 33, 469–85.

Maleuvre, D (1999) *Museum Memories, History, Technology, Art*, Stanford: Stanford University Press.

Mohr E. (1967) *Der Blaubock, Hippotragus leucophaeus, Pallas 1766. Eine Dokumentation*, Hamburg: Verlag Paul Parey.

Neville, B. and Villeneuve, J. (2002) *Waste-Site Stories: The Recycling of Memory*, Albany: State University of New York Press.

O'Keefe, M. C. (2007) 'The Truthful Twin: Andrea Roe's "Little monsters"', *Locus Spectus*, 4 <<http://www.lsmagazine.ca>>.

Pallas, P. S. (1766) *Miscellanea zoologica quibus novae imprimis atque obscurar animalium species describuntur et observationibusque illustrantur*, The Hague: Van Cleef.

- Patchett, M. (2008) 'Tracking Tigers: Recovering the Embodied Practices of Taxidermy', *Historical Geography*, 36.
- Rookmaaker L. C. (1992) 'Additions and Extensions to the List of Specimens of the Extinct Blue Antelope (*Hippotragus leucophaeus*)', *Annals of the South African Museum* 102 (3) 131–41.
- Rowley, J. (1925) *Taxidermy and Museum Exhibition*, London: Appleton.
- Ryan, J. (2000) "'Hunting with the Camera": Photography, Wildlife and Colonialism in Africa', in Philo C. and Wilbert, C. (eds) *Animal Spaces, Beastly Places: New Geographies of Human-Animal Relations*, 203–21, London: Routledge.
- Shell, H. R. (2004) 'Skin Deep: Taxidermy, Embodiment and Extinction in W. T. Hornaday's Buffalo Group' in Leviton, A. E. and Aldrich, M. L. (eds) *Museums and Other Institutions of Natural History, Past, Present, and Future*, 88-112, San Francisco: California Academy of Sciences.
- Skead, C. J. (1980) *Historical Mammal Incidence in the Cape Province*, Cape Town: The Department of Nature and Environmental Conservation of the Provincial Administration of the Cape of Good Hope.
- Skotnes, P. (1996) *Miscast: Negotiating the Presence of the Bushmen*, Cape Town: University of Cape Town Press.
- Skotnes, P. (2007) *Claim to the Country; The Archive of Lucy Lloyd and Wilhelm Bleek*, Johannesburg: Jacana.
- Snæbjörnsdóttir, B. and Wilson M. (2006) *nanoq: flatout and bluesome: A Cultural Life of Polar Bears*, London: Black Dog.
- Star, S. L. (1992) 'Craft Vs. Commodity, Mess Vs. Transcendence: How the Right Tool Became the Wrong One in the Case of Taxidermy and Natural History' in A. E. Clarke and J. H. Fujimura (eds) *The Right Tools for the Job: At Work in Twentieth-Century Life Sciences*, 257-286, Princeton: Princeton University Press.
- Star, S. L. (1999) 'The ethnography of infrastructure', *American Behavioural Scientist* 43 (3) 377–91.
- Stengers, I. (1997) *Power and Invention: Situating Science*, Minneapolis: University of Minnesota Press.
- Thrift, N. and Dewsbury, J-D. (2000) 'Dead Geographies and How to Make Them Live', *Environment and Planning D: Society and Space*, 18, 411–32.
- Thrift, N. (1996) *Spatial Formations*, London: Sage.
- Thrift, N. (1997) 'The Still Point: Resistance, Expressive Embodiment and Dance', in Pile, S. and Keith, M. (eds) *Geographies of Resistance*, 124–51, London: Routledge.
- Thrift, N. (2000) 'Not a Straight Line but a Curve, or, Cities are not Mirrors of Modernity', in Bell, D. and Haddour, A. (eds) *City Visions*, 233–61, London: Longman.
- Thrift, N. (2004) 'Summoning Life', in Cloke, P., Crang, P. and Goodwin M. (eds) *Envisioning Human Geography*, 81–103, London: Arnold.

Ward, R. (1880) *The Sportsman's Handbook to Collecting, Preserving, and Setting up Trophies and Specimens*, London: Ward.

Wells, H. G. (1935 [1895]) *The Time Machine*, London: Dent.

Wicomb, Z. (2001) *David's Story*, New York: The Feminist Press.

Wonders, K. (1993) *Habitat Dioramas: Illusions of Nature in Museums of Natural History*, Uppsala: Almqvist and Wiksell.

Wonders, K. (2003) 'Habitat Dioramas and the Issue of Nativeness', *Landscape Research* 28 (1) 89–100.

Wylie, J. (2002) 'An Essay on Ascending Glastonbury Tor', *Geoforum*, 33, 441–54.

Websites

The Taxidermy Working Group: <<http://icom-nathist.de/icom/nh-wk1.htm>>.

Kate Foster: <<http://www.meansealevel.net>>, <<http://www.blueantelope.info>>.

Andrea Roe: <<http://www.incidentalrelationships.com>>.

Acknowledgements

The authors would like to thank Dr Sam Alberti and Dr Chris Whitehead for organizing the conference 'Nature behind glass' where a version of this paper was presented in poster form. Acknowledgements go to our fellow 'Stuff Club' members: Dr Michael van Beinum, Jethro Brice, Dick Hendry, Dr Hayden Lorimer, Maggie Reilly, Andrea Roe and Peter Summers. Thanks also to Dr Chris Philo, Dr Eric Laurier and Dr Leah Gibbs for critical yet constructive comments on earlier drafts of this paper.

* **Merle Patchett** is a Ph.D. candidate at the Department of Geographical and Earth Sciences, University of Glasgow. Her thesis is entitled 'Putting animals on display: Biogeographies of taxidermy' and is funded by the AHRC.

Address

Department of Geographical and Earth Sciences
East Quad,
University of Glasgow,
Glasgow G12 8QQ
email: Merle.Patchett@ges.gla.ac.uk

** **Kate Foster** graduated in Environmental Art at Glasgow School of Art in 2001 after completing Ph.D. studies in social policy (1997). An award from the Leverhulme Trust (2005) facilitated the work described in this paper.

Address

145, Kelvinhaugh Street
Glasgow G3 8XP
email: katefoster@meansealevel.net