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1 **Title: Deceptive Landscapes: Ornithological hide-work and**
2 **the perception of ospreys on Speyside, 1957–1987.**

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8 **Abstract**

9

10 This paper concerns the practices, materials and landscapes of ornithological knowledge
11 in the twentieth century. It engages with the canon of geographical work emphasizing the
12 active materiality of surroundings in matters of perception (Wylie, 2006; Anderson and
13 Wylie, 2009), alongside more speculative engagements advocating an expanded
14 conception of nonhuman agency in the creation of place (H. Lorimer, 2006; van Patter
15 and Hovorka, 2018; Lorimer, Hodgetts, and Barua, 2017). I focus on the use of the bird
16 hide on Speyside, with a view to guarding and documenting the lives of ospreys from
17 1956 onwards. Drawing on previously untapped more-than-representational elements
18 within the writing of author John Berger, I argue that hides work to produce a deceptive
19 version of landscape. Attention to hides offers a means to draw back the conceptual
20 curtain (Berger & Mohr, 2016: 19) obscuring the lively relations of humans and birds
21 dwelling in negotiated proximity. As Berger (1977) himself notes, too often modern
22 capitalist life is marked by our failure to meet the animals' gaze, reckoning with their
23 capacities to observe *us*. I formulate an account of landscape attentive to the 'look' of the
24 animal in how they emerge.

25

26 **Key Words**

27 Landscape, John Berger, Karen Barad, animal geography, conservation.

28

29

Introduction

July 1962, a journalist sketches the following scene: A young man sits in a small, pitch-pine hut, akin to a garden shed. His eyes flit between a copy of the bible and a mounted pair of ex-naval binoculars, directing his gaze across the moorland towards the pair of ospreys (*Pandion haliaetus*) occupying their nest of sticks roughly 150m away. Noting their position and behaviour, he marks the small logbook accordingly. It remains ambiguous in the journalist's account as to whether bird life or Bible is studied more closely.¹

A few years previously, ospreys returned to Scotland, attempting to breed for the first time since 1916. These brown and white piscivores recolonised the forests of Rothiemurchus and Abernethy, Speyside, from Scandinavia. When reports of potential nesting reached George Waterston, the newly-appointed Scottish Representative for the Royal Society for the Protection of Birds (RSPB), he and his colleagues immediately began plotting to secure the species' return. Fearing the detrimental impacts of accidental or malicious disturbance to the birds, he mustered a squadron of wardens to camp in the woods beside Loch Garten, where the birds later settled.² The RSPB's activities on Speyside, known as 'Operation Osprey', evoked the militarised approach of much post-war conservation (see Adams, 2004). The ospreys were to be protected against identified 'enemies', comprising an unruly public, egg collectors, incautious 'twitchers', via secrecy and enclosure (Davis, 2011).

At the heart of the endeavour lay a tension of *presence*. Specifically, a tension arising around the articulation of human and avian presences to one other. Waterston and companions desired *proximity* to the ospreys. They must be on hand to protect the birds against the more damaging expressions of amateur naturalism.³ Moreover, as is widely rehearsed in geographical scholarship examining conservation's 'biopolitics' (Beirman and Mansfield, 2014; Braverman, 2015; Srinivasan, 2014), the work of close surveillance would prove vital for gaining insight into osprey breeding behaviour, latterly informing a more effective approach to protection. Paradoxically, however, the RSPB were anxious to keep their distance. In contemporary writings, ospreys appeared as flighty, skittish and liable to abandon an eyrie at the slightest suggestion of trespass.⁴ In sum, whilst human presence at the nest was necessary to ensure the species' return, it must not be at the cost of inflicting the very disturbance wardens worked to prevent.

This paper explores these tensions of presence and absence as they permeate the negotiation, (re-)production and perception of contingent 'animal landscapes' (Matless, Merchant, and Watkins, 2005). In taking as my focus warden and osprey activities at Loch Garten, enmeshed annually as the former guarded and observed the latter, I examine how such human-avian landscapes *work* (Matless, 1998) via species-specific relations, affects and affinities. At Loch Garten, Waterston would seek to resolve the inherent tension of conservationists' desire for both involvement and dis-involvement via deployment of a hide (or blind): a long-established means of concealing the bird-watcher's presence. I emphasise the intimate animal (and *animal's*) geographies enacted by such structures, functioning as apparatuses that 'mechanically' produce particular landscapes. I argue that by obscuring human bodies, hide-work speaks deceptively of the presences enfolded

into, and animating of (Rose and Wylie, 2006), the ‘event’ of landscape. My intention, therefore, is to craft a less ‘deceptive’ account of more-than-human perception in the workings of conservation geographies.

In the next section I discuss cultural geographies of landscape, infused with the material presence and perceptual agency of non-human animals. Following an elaborating of the archival approach informing the paper, I introduce Waterston’s hides and their intended function as ‘landscape machines’. I proceed to disrupt this ontology, which I argue, following the work of John Berger, to be ‘deceptive’ for the manner in which it ‘covers over’ the actual lives coalescing in the event of landscape. I subsequently reconceptualise animal landscapes, here with regards to osprey conservation at Loch Garten, as co-constituted between the perception of humans *and* animals, necessarily appreciating the fact that other creatures, too, observe *us* (Berger, 1977).

Landscape, perception, materiality

The tensions between the distanced and the near to hand, that which is absent and the palpably present, are constantly (re-)negotiated by conservationists. In the work of Hugo Reinert, describing the protection of the migratory Lesser-fronted Goose, the ‘fragile wildness’ of the geese necessitates their surveillance from a distance, avoiding disruption of avian breeding activities, or the birds’ habituation to humans (Reinert, 2013). The result is a landscape of (potential) rupture and haunting, seasonal presence and absence (Reinert, 2015; Whitehouse, 2017). Humans securing futures for threatened creatures

constantly work amidst the limitations imposed by their own existence as material bodies; capable of affecting animals, *here and now*, in ways that reverberate across their lived migratory geographies, spelling disaster for others *there and then* (van Dooren, 2014).

Such tensions, of presence and absence, likewise appear central to cultural geographies of landscape. A staple yet protean geographical term, conjoining disparate conceptual and empirical interests, it is typical of 'landscape' to differently weave representation, materiality, power, affect, human and nonhuman life together (Matless, 2014). However, despite diverse application and association, some – notably John Wylie – have championed a conceptual *specificity* of landscape in geography as naming the intertwining of perception and materiality (Merriman *et al*, 2008). 'When I look,' Wylie writes, "I see *with* landscape" (2007: 152). Landscape evokes "the actualisation of a certain relationship between 'self' and 'world'" (Wylie, 2006: 521); "a particular form of affective spatiality, a visual and haptic experience" (Wylie and Webster, 2018: 1). Thus, the enfolding of perceiving subjects into encountered, excessive materialities territorialises contingent experiences of world *as landscape* (Lorimer & Wylie, 2010).

Importantly, the specifics of such actualisation are not coherent or given, but contingent, spectral and uncanny (Nancy, 2005; Wylie, 2009). An attention to liveliness, movement, flow, and encounter emphasise landscapes less "finished", more "blurred at the edges" (Cresswell, 2003: 273). The potential to "get lost" in landscapes (Nancy, 2005: 52-3) belies properties withdrawn, virtual even. Landscape thus evokes lively, biographical topographies (H. Lorimer, 2006) alongside geographies "incessantly ghosted" with

absences (Wylie and Webster, 2018: 12). They characterise subjective, differential
attunements towards unfolding, eventful surroundings (Stewart, 2011).

The re-assertion of the need to re-materialise cultural geography (Whatmore, 2006) has
seen, over more than a decade, a re-orientation towards the vibrancy of matter and the
eventfulness of site-specific relations (Bennett, 2010; Woodward, Jones, and Marston,
2010). Accounting for ‘more-than-human’ geographies of landscape necessitates
attention to numerous organic and inorganic entities; the ‘bumpy’ topographies of agency
embroiled in place. Landscapes emerge and take shape through the actual, or immanent,
involvement of numerous creatures, forces and materials. Perceptual experience and skill
texture what geographer (and bird-watcher) Mark Bonta (2010) terms an event of
“becoming landscape”, in which animals mediate or lead us into new forms of attunement.
Thus, landscapes are recognisably constituted through the relational involvement of all
manner of lively entities (Pries, 2018). Likewise, devices, like hides, demonstrate the
“active materiality” (Lestel, 2002: 57) of assembled things, activating particular versions
of landscape, nevertheless haunted by their ontological exclusions (Barad, 2010).
Crucially, landscape’s materiality is not merely solid, blocky or inert ‘stuff’, but excessive:
a multi-state field of life and relations (Anderson and Wylie, 2009) registering in ‘more-
than-representational’ ways (MacPherson, 2010).

Adjacent to this material turn, geographers have variously examined how more-than-
human geographies are produced through debates concerning creatures in or out of place
(Philo, 1995; Cresswell, 2014); other species’ role in shaping ostensibly *human* histories
(Wilcox and Rutherford, 2018); and imagined animals populating regional imaginaries

(Syse, 2013; Matless, 2014). Here, sketching more-than-human geographies of osprey conservation, I elaborate the dimensions of what Matless, Merchant, and Watkins call “animal landscapes”. Their term, foregrounding “strategies by which humans meaningfully encounter the animal” (Matless, Merchant, and Watkins, 2005: 191), appreciates the animal’s role in how landscapes *work*. Such material-discursive and affective ‘strategies’ constitute specific historical-geographical constellations of place, people and animals, performing particular “versions” of human, animal, nature and landscape (Despret, 2014; Matless, 2000). Attention to the ontological politics of animal landscapes emphasizes the contingent, contested construction of *all* agential subjects, in context (Pries, 2018).

Birds, as mobile, noisy, charismatic creatures with lived attachments to place, are recognizably *geographical* beings (Steinberg, 2010). Thus, landscape is more than the stage for bird life, rather the temporality of many landscapes is enacted through seasonal, migratory avian refrains (Whitehouse, 2017). Invoked within Rachel Carson’s premonition of a silent spring, the *absence* of birds (or forms of bird life) entails profound transformations in the nature of landscape (van Dooren, 2014; Whale and Ginn, 2017; Garlick, 2018). Mobile avian “flight-ways” knit together seemingly-detached places, ecologies, and politics (van Dooren, 2014; Reinert, 2015; Rodriguez-Giralt, 2015). Stopping *en-route*, or resident all year round, birds ‘story’ the landscape in a multitude of ways. Whether urban-transgressing ibis (McKiernan and Instone, 2016); harbour-nesting penguins (van Dooren, 2014); or high-rise-colonizing peregrines (Hinchliffe and Whatmore, 2008), examples of avian lives lived amidst diverse landscapes abound, troubling static categorisations of *species* or *habitat* (van Dooren and Rose, 2012). The

172 contingencies of avian presence and absence, amidst the meshwork of land and life, merit
173 closer attention.

174

175 **Excavating osprey landscapes**

176

177 More-than-human geography is increasingly alert to the practical, methodological and
178 conceptual challenges arising when seeking to historicise the lively agency of animals and
179 their geographies (Wilcox and Rutherford, 2018). As I discuss elsewhere (Garlick, 2018),
180 such histories are partly made possible for ospreys owing to what might be termed their
181 archival charisma. The lives of (some) such birds have been extensively documented and
182 these records offer the possibility of differentiating historical change. This paper
183 therefore reflects one response to the epistemological questions raised animal histories,
184 concerning how such history is *written* (Kean, 2012). I have gone looking, albeit
185 speculatively, for ospreys in logbooks and archives. I have asked questions of avian
186 existence that offer birds the chance to appear *more interesting* (Despret, 2013).

187

188 To understand hide-work done at Loch Garten I have undertaken a close, speculative
189 reading of those logbooks accessible to me within RSPB possession. Such a reading has
190 involved excavating events of osprey agency from within the archive. Attuned to such
191 moments in the log via engagement with literatures on avian ecology and ethology,
192 conversations with practicing conservationists, and encounters in the field (see Garlick,
193 2017), I aim to give form to the relationship between ospreys, humans and landscape.
194 Covering the breeding seasons 1957 to 1987, log books were produced annually by teams

of between 50 to 90 (mostly) seasonal volunteers. Each volunteer was engaged for a week or more during the period from early April to early September, working in shifts of up to 8 hours so as to maintain a 24-hour presence at the nest. Following the site's opening to the public in 1959, Waterston recruited widely from the RSPB's membership (and beyond) to bolster his wardening staff, previously assembled through personal networks. These volunteers were issued instructions on arrival – styled as militarised 'standing orders' during the project's early years – prescribing daily duties. In tandem, instructions provided within the hide prescribed, what to record whilst on duty. Ever since the ospreys' attempts to settle at Loch Garten in the mid-1950s, these logbooks, in various forms, have shaped how they were perceived.

I have sought to read the logs not merely as records of seasonal bird behaviour, or the evolution of observational practices; though both offer intriguing avenues of inquiry. Rather, I interpret the record as documenting the workings of a particular animal landscape. Rich in accounts of embodied practice and perception, the logs abound with lively human and osprey agencies. Further elaboration, in relation to both additional archival sources and extant writing on osprey ethology and ecology, reveals the *contingency* of this landscape and the practical negotiations sustaining proximity and distance. Unsettled, such documents comprising the nebulous "animal archive" (Benson, 2011) yield multiple, potential, non-anthropocentric interpretations (Fudge, 2013). Such a mode of historical animal scholarship redirects attention towards how other creatures (here ospreys) become differently capable; affecting of and affected by historical and material contexts.

219 **Hide-working**

220

221 Considering those technologies and techniques mediating our experience of the world:
222 what kind of landscape does a hide enact? For Eduardo Kohn (2013: 221), the desire to
223 hide from the animal belies recognition of a creaturely “look that matters”, demanding
224 negotiation or subversion. A hide thus is a material intervention in the actualisation of
225 world-as-landscape, both infused with recognition of the animal gaze, and the promise of
226 mediating this material-perceptual event. It is a machine intent on reliably (re)producing
227 particular kinds of animal-human landscape.

228

229 Seeking potential nest sites on Speyside in the summers of 1955 and 1956, George
230 Waterston was continually frustrated. Despite spotting ospreys several times during
231 northern sojourns, in the company of other RSPB staff, local landowners, and Nature
232 Conservancy wardens assigned to the newly established Cairngorm National Nature
233 Reserve, he only happened upon eyries *after* their abandonment following human
234 disturbance.⁵ Writing in the wake of failures first in the Sluggan glen, later in
235 Rothiemurchus forest, Waterston admonished those who, through careless or malicious
236 action, delayed the ospreys’ return to Speyside, and urged curious birdwatchers to stay
237 away (1957). His approach echoed wider ‘protectionist’ writing during the 1950s,
238 figuring the osprey as skittish, nervous and intolerant of human presence such that it
239 might desert a nest following only minimal disturbance.⁶ The moral geographies of an
240 emergent ‘modern ornithology’ (see Toogood, 2011; Macdonald, 2002), framed avian
241 flourishing as contingent upon enforced separation from humans, and the erasure of any
242 observing human presence.

243

244 When a large eyrie was located in marshland south of Loch Garten in May 1956, plans
245 were laid to return early the following spring to watch over that site and local fishing
246 lochs for the birds' arrival. Waterston convened a detachment of wardens to survey the
247 area from early March. At the earliest report of an osprey, he quickly erected a hide
248 fashioned from tarpaulin and rope and organised shifts to monitor the nest (Waterston,
249 1957). Though no breeding occurred that year, the gaze and presence of bird
250 protectionists was firmly established as one that "withdrew itself [...] concealing the act
251 of observation from its object" (Reinert, 2013: 21). This voyeuristic, non-reciprocal
252 experience of landscape was facilitated by the first of several hides.

253

254 *The Logic of hide-work*

255 The use of hides at Loch Garten underlines a wider transition in ornithological practice
256 and naturalism occurring into the twentieth century (Moss, 2004). From the late 1700s
257 knowledge of birds had been produced through the amassing, categorising and study of
258 specimen collections (Farber, 1997). Such practice awkwardly knotted an enthusiasm for
259 avian life with the violence necessitated by collecting practices (J. Lorimer, 2014). By the
260 latter-nineteenth century there had occurred several advances in optics, including
261 refined telescopes, the development of binoculars and early telephoto lenses (Ryan,
262 2000). These innovations proposed an alternative tradition of distanced, reserved
263 engagement (Matless, 2000). Detached study would displace the visceral enthusiasms of
264 hunting and egg-collecting, which became marginalised pursuits (Cole, 2016). Bird-
265 watchers and photographers, however, did adapt many of the material-bodily practices
266 of hunting, including the use of hides, to get closer to birds. Scottish naturalist brothers

267 Richard and Cherry Kearton were notable and inventive practitioners of concealment.
268 Cherry, variously disguised as a sheep, rubbish heap or tree stump, sought to appear
269 neutral to his avian subjects (Kearton and Kearton, 1898). The early decades of the
270 twentieth century soon saw such hide-work established amidst the tenets of a 'New
271 Ornithology' as a means to achieve proximity and record detailed, standardised
272 observations (see Nicholson, 1932: 36; Toogood, 2011).

273

274 The objective of hide-work can be figured as an attempt to affect a purified, 'modern
275 separation' (Latour, 2004) between wild avian objects and human ornithological
276 subjects. The paradoxical objectives of the New Ornithology saw the desire for ever more
277 faithful, replicable, and standardised accounts of birdlife being championed alongside the
278 recruitment of a more diverse birding public whose varied abilities and proclivities, as
279 human observers, necessitated expunging (Macdonald, 2002). Historian Matthew
280 Brower (2011) has examined the use of hides by British and American photographers at
281 the turn of the twentieth century. He conceptualises these devices in terms of the 'work'
282 they perform in the environment. Offering the promise of what Donna Haraway (1991:
283 189) terms the "view from nowhere", for Brower the hide functions by obscuring
284 recognisable *human* forms behind the appearance of 'neutral' objects that (apparently)
285 elicit no avian response. In doing so, hides deliver closeness without involvement. They
286 provide encounters with "true nature"; the resulting photographs (we might add,
287 annotated observations) "show us the birds acting as if we were not there (because for
288 them we are not)" (Brower, 2011: 122). Waterston's structures thus allowed wardens to
289 be present for, but not participate in, the unfolding of osprey life. Viewed as

290 inconsequential objects for the birds, the hides at Loch Garten therefore materialised
291 certain assumptions about the osprey, its perception and experience of landscape.

292

293 *A “landscape machine”*

294 How to consider the means by which the hide mechanically (re-)produced a separation
295 of human and bird at Loch Garten? In his account of colonial mobility landscapes, Julian
296 Baker examines the way the Darjeeling Himalayan Railway produced a distinct
297 experience of India’s environment for its passengers. The material assemblage of the
298 train and carriages affected a particular embodied, sensory experience of landscape: their
299 design, motion, soft furnishings and the route taken, together, imposed a distinctive set
300 of conventions, choreographing the passing topography. The carriage was “a technology
301 of perception, one travellers inhabited and which integrated with their perceiving
302 bodies” (Baker, 2014: 134). The train, in turn, Baker terms a “landscape machine” (142),
303 mechanically orienting the passenger in a specific way towards the landscape. Such a
304 notion is helpful in conceptualise hide work: its imbued logic of absence, and its material
305 existence as a collection of instruments, instructions and codes of conduct collectively
306 acting as a “framing assemblage” that enacts the landscape (J. Lorimer, 2008: 379).

307

308 Producing human invisibility was only part of hide-work. The hide directed perception
309 for its inhabitants. Standardised practices of recording coupled with optical and auditory
310 technologies enhanced and disciplined the senses. In the early makeshift hides erected
311 by Waterston in 1957 and 1958, on-duty wardens squatted awkwardly on a wooden
312 crate, scribbling crude notes in the gloom to stave off boredom. Their view of the nest
313 was limited: only the head of the nesting bird was visible through a small opening

(Brown, 1962: 37). In 1959, following four successive summers of failed breeding, Waterston invested in more elaborate defences. He had the Society purchase the first in a series of more spacious wooden hides (Figure 1). As well as being linked to ‘basecamp’ via a series of ex-military telephones, and later housing an alarm system connected to the nest tree, the structure offered a wider vista across the moorland, and a clearer view of the nest. It was soon outfitted with a pair of German ex-naval binoculars and parabolic reflector microphone – initially loaned by the BBC’s Natural History unit, later provided by Edinburgh-based engineering firm Ferranti – to enable duty volunteers to watch and listen for possible human disturbance.⁷ Instructions, inscribed on the inside covers of the logbooks and adorning the walls of the hide, delineated the standard for recording bird behaviour. Coded sketch diagrams of the visible treeline enabled warden to track each bird’s position between shifts. This material arrangement continues in the hide today.⁸

[Figure 1 here]

Changes in the recording format stemmed from the arduous and frustrating task Waterston faced during early attempts to extract data from the first two years of logs for analysis and publication (see Waterston 1960; 1961). From 1961 onwards, he and his appointed deputies on Speyside enforced stricter, more structured means of recording information. They urged both brevity and objectivity: wardens must avoid “too much padding,” and include “no anthropomorphisms, please”.⁹ By 1966 a series of simple codes – including: ‘S’ to signal the collection of nest material, ‘F’ indicating the delivery of fish, and ‘C’ denoting events of copulation – had been developed to accelerate the processes of data recording, extraction and analysis. Such codes, as Bowker and Star (1999) argue,

had *force* in the world exceeding its cognitive categorisation. Combined with the array of monitoring devices provided, codes ‘oriented’ the warden to their surroundings (Ahmed, 2006), producing a particular experience of landscape whilst also disaggregating avian nature into behavioural units of concern (Candea, 2010). Annually, codes were revised, replaced, re-incorporated and rejected as opinions changed regarding their validity. During the 1969 season, at the behest of RSPB researchers, Waterston’s wardens trialled a columned style of data entry, where a series of headings disaggregated specified behaviours of interest.¹⁰ As Latour argues, the desire to bring the processes of categorisation from lab to field refigures the observer as a “meticulous bookkeeper” (1999: 31) of Nature. Appropriately, this transition in the practice of logging was enabled via changes in the *medium* of inscription as the small lined notebooks, used since 1957, were replaced with large accountancy ledgers from 1970.

In these ways, hide work bracketed out human presence at Loch Garten. The hide, as a landscape machine, was likewise an “epistemological engine” (Ihde, 2002: 69). As Haraway describes the much sought-after ability to observe the animal “as if through a peep hole” (2006: 108) requires technical devices, such as the “critter-cam” (2008), that work to enact such viewpoints. As one is immersed *in* such technical assemblages, the apparatus acts upon the phenomena of the world, excluding particular features, foregrounding others, and instituting a particular epistemic relationship of causality between entangled entities under scrutiny (Barad, 2007). The ideal of the scientific observer as an absent or bodiless presence in the experiment or phenomenon under scrutiny, the osprey as a collection of behavioural stimuli that can be known to reveal the mechanisms of successful reproduction, and a ‘natural’ landscape of bird life absent of

human presence: all are intra-actively produced, to use Karen Barad's term, *via* the hide. Scientific knowledge of osprey life (or the aspects of interest to the RSPB's research staff) could thus accrue, free from the interfering effects of subjective human bodies (Despret, 2013b: 52). The resulting accounts of bird activity resemble tabulated totals of behavioural ticks combinable, comparable and calculable. The analysis of these data (see Green, 1976) abstracted from their landscape of production, subsequently circulated in support of the diagramming of osprey lives elsewhere (see Cramp S *et al*, 1980; Poole, 1989; Dennis, 2008).

Deceptive landscapes

Building on this conceptualisation of the hide as a landscape machine – an apparatus for observing the birds in their 'natural' state – I argue such a structure to be instrumental in (re-)producing, materially and conceptually, a *deceptive* version of conservation landscapes. In such landscapes, birds exist as part of the materiality of the world's perceptual unfolding *for us*, yet we are absent from *their* perceptual field. There is a rupture in the folding of seer and seen that Wylie (2006) articulates within his phenomenology of landscape, whereby the perceiving subject is also constituent of the very materiality through which the landscape is actualised. The hide, by contrast, denies such 'reversability': that the seer *is also* seen.

When one reads the log less as an account of detachment, more a "narrative of affiliation" (H. Lorimer, 2010: 65) documenting landscape's *working*, "the ways of living it enables"

(Matless, 1998: 12) over decades of human-osprey co-presence, however, this record contests any rigid separation. Instead, the hide appears to *enable* a particular kind of involvement between humans and ospreys. The dimensions of this relationship haunt both the logs and the apparatus by which they are produced. Recorded observations speak of an entangled co-production of landscape. I want to consider those agencies haunting landscape's constitution, despite their apparent 'exclusion' (see Barad, 2010) via the material-discursive framework of ornithological science. A less deceptive account is required.

Deploying the phrase 'deceptive landscape', I pay heed to the work of John Berger (1926-2017). Rising to prominence in the 1950s as an outspoken Marxist cultural critic, Berger's arguments concerning the need to situate artistic representations amidst changing contexts of their consumption and production; and his "place-portraiture" (see H. Lorimer, 2015) of rural life amidst the French Haute-Savoie, have influenced the work of geographers (and others) exploring (more-than-human) cultures and landscapes (see Cosgrove, 1998; Daniels, 1989; Daniels and Lorimer, 2012; H. Lorimer, 2006; Rose, 1993).

Here, it is initially from the collaborative project by Berger and Swiss photographer Jean Mohr, *A Fortunate Man*, that I draw inspiration. Over the opening pages of their photo-essay, documenting the "bio-geographies" (H. Lorimer, 2014) of an English country doctor, Berger writes:

“Landscapes can be deceptive. Sometimes a landscape seems to be less a setting for the life of its inhabitants than a curtain behind which their struggles, achievements and accidents take place.”
(Berger & Mohr, 2016: 19).

Thus, for Berger, landscape is “duplicitous” (Daniels, 1989). The veiling narratives and representations of landscape obscure the desires, memories and activities of their inhabitants; those specificities of place, perception and materiality that matter in such dynamic, struggled-over and contingent contexts.

Berger’s notion of landscape as a veiling discourse, or “way of seeing” (Berger, 1972), is perhaps his most influential contribution for many cultural geographers. Yet an alternative, no less rich vein to his writing remains largely untapped. Many of his accounts demonstrate an analogous sensitivity towards what we might now recognise as the more-than-representational atmospherics of landscape. His work offers accounts attentive to the crystallising of place, or region, through ‘ordinary’ affective registers, emotions and practices (Stewart, 2013). One narrative, for example, recalling an evening’s ascent through an alpine meadow, sees Berger articulate an embodied, visceral unease accompanying his sense of being watched by another, hidden, *non-human* entity (2005: 29). Elsewhere in his writing, a palpable willingness to follow the ‘invitation’ of landscape (Berger, 2006: 172), its vectors of becoming and entanglement – one might venture, its ‘lines of flight’ (Deleuze and Guattari, 2013) – leads outwards, from the image or scene to other places and times. Berger recognises that beings and forces *beyond* human agency shape what he terms landscape’s *event*.

Berger's notion of the landscape event is a model for writing less deceptive accounts of human-animal involvements. Consider his sketch of a typical rural scene, offering a diagrammatic account of the affects constituting and expressive of 'a field' – specifically, an enclosed rural meadow – as both an archetypal spatial-temporal mode of the rural, and a specifically actualised event. Enacting perception of 'a field' becomes 'a question of contingencies overlapping' in which "[t]ime and space conjoin", conjuring the experience of landscape (Berger, 1971: 71). For Berger, it is clear that certain (codified) conventions of perception, alongside worldly material conditions, orient the observer, proposing a certain general form of place character. And yet, the event of landscape, as it *actually occurs*, remains heterogeneous, potentially unruly (though not so far as it becomes unrecognisable or otherwise), open-ended, and in excess of such apparent horizons:

"The events which take place in the field – two birds chasing one another, a cloud crossing the sun and changing the colour of the green – acquire a special significance because they occur during the minute or two during which I am obliged to wait. It is as though these minutes fill a certain area of time which exactly fills the spatial area of the field. [...] The first event leads you to notice further events which may be consequences of the first, or which may be entirely unconnected with it except that they take place in the same field. [...] You relate the events which you have seen and are still seeing to the field. It is not only that the field frames them, it also contains them. The existence of the field is the precondition for their occurring in the way that they have done and for the way in which others are still occurring. [...] At first I referred to the field as a space awaiting events; now I refer to it as an event in itself." (Berger, 1971: 71-75)

Regarding Berger's 'field ontology', I find an analogue in the work of Barad (2007) concerning the quantum physics-philosophy and experimental practice of Niels Bohr. Barad conceptualises a relationship between *phenomena* – naming "the ontological

inseparability” (2007: 119) and excessiveness of worldly matter and agency – and (scientific) apparatuses – as “direct material engagement[s] with the world” (Barad, 2007: 49), enacting “cuts” between otherwise entangled entities (themselves further assemblages) to produce/propose arrangements of causality. The apparatus, for Barad, is inseparable from the objects, subjects and concepts it helps to sustain, and vice versa. It is in this manner, as a landscape machine, that the hide aims to mechanically enact a particular separation of entities, actualising an idealised landscape of human-osprey detachment. Nevertheless, like the field Berger describes – ontologically both container *and* event, overlapped and exceeded by events and agencies beyond its bounds, and enfolding of the observer into its actualisation and perception – the work of the hide, like any apparatus, is haunted by the entities, agents and forces apparently excluded from its onto-epistemic (re-)configuring of the world. In Berger’s account, these are the unforeseen agencies that come from beyond the field’s edges, if you like.

Thus, Barad articulates within the practices of scientific knowledge production what Berger captures with regards the vitality of the rural landscape of the field. That which lies *outside* the apparatus or field (here, outside the hide) still exerts force in *the event* of the apparatus, field, or landscape, even if hide-work *denies* such relationality. This argument is best illustrated for Barad by the unforeseen role an apparently innocuous objects – such as the cigar being smoked by an observing scientist – can play in affecting the outcomes of laboratory experiments – e.g. by introducing additional chemical compounds into the atmosphere of the lab that alter the outcome of the exercise (2007: 168). Despite what the apparatus, apparently bounded landscape, or hide, might propose, the world beyond “kicks back”. The hide, as a landscape machine, “is haunted by its

481 mutually excluded other” (Barad, 2010: 253): the lively existence of sensing ospreys.
482 Applying Barad’s thinking, oblique to the work of Berger and landscape geography,
483 advances a less deceptive account of human-osprey landscape: one taking seriously the
484 ‘look’ of the *animal*.

485

486 *Rediscovering the look of the animal*

487 Recovering the traces of a negotiated, osprey-human landscape amidst historical
488 documents, offers one means to “pull back the curtain” veiling the intimate human-animal
489 geographies of place. I demonstrate below how the hide exists as a constituent part of the
490 osprey’s landscape and perception. An ontology of ornithological (or animal) landscapes
491 that ignores the role of avian (or animal) perception is *deceptive*. It fails to appreciate our
492 role, as bodies, in the materiality constitutive of *animals’ landscapes*.

493

494 Recent more-than-human and animal geography scholarship demonstrates the potential
495 for to meet such epistemological challenges. Over the past decade, geographers have
496 transcended an erstwhile focus upon “animal spaces” – the geographies imposed on
497 animals *by* humans – to direct increasing attention towards “beastly places” (Philo and
498 Wilbert, 2000) – the lived geographies *of* animals (Barua, 2014; Buller, 2015; Hodgetts
499 and Lorimer, 2015; Van Patter and Hovorka, 2018), through insights drawn from
500 neovitalist, posthuman and ethological thinking. Notable examples include Hayden
501 Lorimer’s accounts of the lively topographies of reindeer herding and naturalism on
502 Speyside. The materiality of place, in his work, “charms” across species, as biographical
503 landmarks are shared by animal and human alike (H. Lorimer, 2006; 2014). Elsewhere,
504 Jonathan Brettell (2016) conveys to the affective charge of the Welsh red kite feeding-

station, enrapturing both an enthused bird public *and* passing, hungry raptors; their wheeling refrains animating landscape. More recently, Phil Howell and Hilda Kean (2018) excavate canine experiences of trauma within Mass Observation data from the 1940s, demonstrating the urban Blitz as a more-than-human event of trauma. Collectively, these and other examples perform a shared desire to reckon with the geographies of ‘animals’ atmospheres’ (Lorimer, Hodgetts, and Barua, 2017): the more-than-representational force-fields texturing other creatures’ spatial experience, embodied perception, and capacities to affect and be affected.

Beginning my account of hide-work, I echoed Kohn’s assertion that to hide from the osprey, simultaneously involved recognising ‘a look that matters’ for landscape’s enactment. Writing about other creatures as objects of a changing human gaze throughout history, and specifically under the conditions of modern capitalism – from labourers, to pets, Disney characters, bored zoo animals, and documentary subjects – Berger remarks that animals appear “always the observed”: “[t]he fact that they can observe us has lost all significance” (1977: 27). In the final section of this paper I consider the fact that, in fact, the look of the animal *does* matter in the context of animal landscapes of conservation. I thus explore the implications of taking the look of animals seriously within an ontology of landscape.

Landscape and osprey indifference

In assuming ospreys were unaffected by the hide's presence, Waterston and others performed normative understandings of avian biology, perception and landscape, necessitating a reserved, conservative and withdrawn warden body (Matless, 2000). The annual returns of birds to the nest, contrasted against their evident alarm on occasions of human transgression beyond the hide, supported claims made at Loch Garten and elsewhere (see Poole, 1981) that the presence of people in environment was pathological for creatures so "shy and reserved towards man" (Waterston, 1962: 145). Thus, often accounts of disturbance in the logbooks represent unconcealed, boisterous human activity as profoundly negative, *even where little or no response from the bird is apparent*. Following one incident of youthful disturbance near to the hide, in June 1958, the duty warden notes, with relief, the resumption of "normal" conditions: namely, a lack of tangible human presence.¹¹

Such normal conditions are contrasted, however, substantially throughout the logbooks, revealing Speyside's "sonic landscape character" (Prior, 2017: 11). Despite the RSPB's normative framing, it is clear that anthropogenic noises *would* echo across through the forest and moorland. The log abounds with near-constant traces of human activity as a constituent, animating feature of its "anthrophony" (following composer Bernie Krause – see Whitehouse, 2015) amidst a period of tourist development and enduring estate management. Such records contravene accounts of osprey skittishness. The birds nested annually amidst a landscape of *constant* disturbance. Tourist voices, forestry machinery, infrastructure expansion, gunshots, military aircraft, and quarrying explosions feature each season. Certainly, particularly acute disturbances and transgressions did cause alarm. The taking of eggs from the nest in 1958 prompted the birds to abandon their

established nest site and move to where they remain today. At the same time, the first recorded breeding success, in 1959, occurs despite helicopters, jet-planes and back-firing tractors. The response of the ospreys, in that season and many others, towards the majority of incidents is succinctly captured in a log entry following one such ‘disturbance’ on 16th May 1978: “No reaction from either bird.”¹²

Moreover, sounds emanated *from* the hide. The structure was not sound-proof. To successfully obscure themselves, wardens had to discipline their bodies, remain quiet and still, adhering to codified instructions elaborating a cautious and reserved practice around the nest site (Matless, 2000). In the 1963 logbook, acts including slamming the door or over-sizzling breakfast sausages are flagged as indiscretions that might compromise the normative soundscape of osprey nesting.¹³ Events of overexcitement, indiscretion and false alarm at times alerted the birds to wardens’ presence, as they left the hide and attempted to secure the area. Even simple boredom, or curiosity, could shatter the hide’s apparent invisibility. During the 1958 season, one warden recalls banging on hide interior *deliberately*, provoking the bird to “jerk up and stare” at him.¹⁴ At night, the maintenance of a carefully managed soundscape was even more essential. Wardens relied on their hearing to detect intruders, via temperamental microphones affixed to the tree. With one’s vision playing tricks in the gloom, the birds’ own calls of alarm offered the most reliable indication of intrusion (Brown, 1962). Thus, the birds’ own perception of their surroundings was deferred to in knowing the landscape. Ospreys become vital proxies, a shift occurs from looking *at* the bird to looking *with* it and “knowing its intentions” (Despret, 2014: 31). At night, then, there is explicit recognition of the landscape as an event *of avian perception*. Evidently, being in the hide did not

575 guarantee dis-involvement from osprey life, but emphasises the human's status as,
576 ambiguously, present *and* absent.

577

578 The logs therefore suggest a lived landscape of activity, noise and human presence, rather
579 than silence and solitude, for Loch Garten's ospreys. One can even impute evidence to
580 support their historic acclimatisation to human presence, suggested by changing
581 capacities for *response* (Lestel, 2002) to many of the incidents described above. Early in
582 1959's 'Operation', the sight of distant approaching humans on the track leading towards
583 the covered hide prompted the birds to circle in alarm, even where wardens 'bent double'
584 and crawled slowly forwards. Little over a week later, the ospreys had become
585 accustomed to these comings and goings and a car was reportedly driven to the
586 observation point (Brown, 1962: 55). By 1969, a military fly-by failed to rouse the dozing
587 male.¹⁵ Continued osprey presence in this landscape, then, suggests a capacity to be
588 *unaffected* by humans within the landscape. I want to figure this avian *indifference* as an
589 active ingredient in historical geographies of osprey conservation.

590

591 *Specifying osprey indifference*

592 Early in the 1990s resurgence of animal geographies scholarship, instances of active
593 transgression (animals refusing to stay within human-allotted spaces) appear of central
594 concern, and an important means of detecting nonhuman presences in historical
595 documents (e.g. Philo, 1995). Despite wider acknowledgement and theorising of animal
596 agency, in its varied, differential expression, shaping past and present geographies
597 (Buller, 2015), contemporary historical animal geographies remain reliant upon such
598 moments of transgression (e.g. Webb, 2018). The paucity of materials bearing other

599 traces of animal agency (perhaps ‘resistance’) has led some to reflect on the practical
600 barriers to producing truly *animal* histories (Fudge, 2002).

601

602 Others, however, inspired by postcolonial and subaltern scholarship, have proposed
603 reading sources creatively to recover hidden human *and* animal stories (Barua, 2014;
604 Lambert, 2018). Crucially, the absence of tangible ‘resistance’ on the part of the historical
605 animal, disputed as such terminology remains (Pearson, 2013), need not equate to the
606 absence of *agency*. Despret makes the provocative suggestion that theories of
607 mechanistic thought in animals, and the few accounts of resistance by livestock, reflect a
608 tendency to *comply* with the material arrangements imposed upon them (Despret,
609 2013a).

610

611 Drawing on ethnographic research examining the Kalahari meerkat conservation project,
612 anthropologist Mattei Candea provides a means to reframe animal *indifference* as actively
613 agential. The meerkats’ willingness to accommodate (or ignore) human presence is
614 understood as neither passive nor insignificant. Rather, situating such acts within
615 environments containing numerous potential threats refigures “ignoring another living
616 being [as] a contingent and revocable achievement” (Candea, 2010: 249). As Candea
617 elaborates elsewhere, the cultivation of meerkat indifference is deeply necessary to
618 enable their study by conservation volunteers. Habituating meerkats to humans entails
619 necessarily modify *some* behaviours (flight response) to permit observation of others
620 (group cooperation, sociability). As one interviewed volunteer articulates, “You want,
621 basically, to be a tree” (Candea, 2013: 112).

622

623 In this vein, we can recalibrate the hide's role within an ontology of animal landscapes.
624 At times emanating strange noises, the hide sits amidst an environment animated by
625 human activity. Might, therefore, such objects be better characterised not as invisible, but
626 actively *tolerated* by the ospreys? Through attention to osprey ethology (studies of
627 behaviour) one can inform a speculative account of avian perceptual experience (Lestel,
628 2014; Garlick, 2018). It is clear, that across different communities, geographies and
629 subspecies of ospreys, reactions to human disturbance vary with context. Past
630 experience, exposure to people prior to fledging, and the periodicity, source, and
631 magnitude of disturbance all mediate the outcome (see Poole, 1981). Indeed, it remains
632 problematic to determine a generic 'minimum human distance' tolerated by ospreys,
633 even within a regional population, as demonstrated over recent years in Scotland.¹⁶
634 Whilst human presence undoubtedly proves disruptive for some birds – prompting
635 heightened territorial displays 'wasting' energy necessary for fishing and mating
636 (Mougeot, Thibault, and Bretagnolle, 2002; Monti *et al*, 2018) – others, particularly in
637 North America, have long-colonised human structures (Waterston, 1962). Increasingly,
638 ospreys nesting in Britain appear less concerned by human presence, colonising sites in
639 closer proximity (Dennis, 2008). Setting osprey ethology in context, then, requires us to
640 "count its affects" (Deleuze and Guattari, 2013: 299), revealing an apparently more
641 adaptable, less skittish, bird. In turn, we might figure hides less as invisible presences,
642 more negotiated, conditional proximities.

643

644 Looking at the logbooks, instances where humans *do* prompt Loch Garten ospreys to
645 respond with alarm often correspond to occasions where wardens transgress *beyond* the
646 hide. In 1959, incidents occurred as wardens attempted to creep closer to the nest on

647 misty nights to listen for intruders.¹⁷ Later that summer, the site now open to public
648 visitors, overeager tourists sometimes wandered beyond the covered observation post,
649 causing similar osprey displeasure.¹⁸ As discussed above, a primary function of the log in
650 its early form was to provide a record of such transgressions. Latterly, under the
651 columned format introduced from 1969, the context and detail of such incidents were
652 stripped away. A curious semantic trope emerged with incidents of human disturbance
653 now recorded under the column labelled “intruders”. The tactic appears paradoxical. On
654 the one hand, there is recognition that human bodies threaten the birds’ tranquillity. On
655 the other, the record implies a mechanical stimulus response (Crist, 1999), echoing that
656 provoked by *any* potential predator or territorial rival: be they corvid, rodent, osprey or
657 human. The resulting entries are often comedic, mentions of aggressive crows, or lone,
658 passing ospreys punctuated by the abrupt “Warden to nest”, or more cryptic “12
659 Germans”.¹⁹

660

661 Following these trespasses, the birds often return to the nest within 15–20 minutes.
662 Indeed, in the course of protecting the birds, the RSPB would soon authorise regular
663 excursions to the eyrie. These include, from 1970 onwards: egg checks, the installation of
664 specialist photographic hides, and ascents to ring fledgling chicks and study their
665 migration. Initially the grandees of the RSPB resisted such practices, fearing they could
666 induce the birds to desert.²⁰ Only after ringing was successfully undertaken at another
667 nest site was ringing permitted at Garten, in July 1968.²¹ Following the operation, the log
668 records the adults as being off the nest for 14 minutes before returning to their chicks. In
669 July 1969, the birds again responded with alarm when the ringing party approached.
670 However, they again returned within 14 minutes – a pattern repeated in subsequent

years.²² Recent research suggests some contemporary birds may *recognise* the signs of “routine” incursions (Dennis, 2008: 84). Those ospreys nesting at Loch Garten appear resilient to intrusions. Indeed, such practices demonstrate that wardens understood, even extended, the *limits* of osprey indifference.

Such excursions can be contrasted against other moments of palpable human presence prompting no obvious osprey concern. There are even instances described where the birds do not react to *overt* human presence. Early in the season of 1969, a warden describes standing beside the hide, in view of the female osprey, sawing stray branches that had grown to obscure the view from the hide.²³ A more recent account, relayed by a former manager of Loch Garten reserve, depicts birds nonchalant in the presence of hammering and power tools during early-season maintenance on the visitor centre. Although anecdotes are no basis for general theorising about osprey behaviour, neither can they be simply discarded. The anecdotal provides a lure to the speculative ethologist, suggesting where potential human-animal becomings *might* take us (Lestel *et al*, 2014). Such examples propose that rather than human presence near the nest provoking osprey alarm, it was the manner in which such presence was actualised and perceived that mattered. This recalibrated moral geography of landscape is decidedly more feathery.

An alternative ontology of hides

Accounting for osprey life amidst a landscape (re-)animated with ‘disturbances’ proposes hide-work as involving complex negotiations of proximity with birds as *perceiving* subjects. The hide appears as a landscape machine, directing (and disciplining) human perception, *and* a “domesticating device” (Despret, 2014) that has helped cultivate osprey

indifference. The event of landscape for ornithological study cannot be grasped within the account the apparatus of the hide proposes. Instead, present human bodies and ospreys, figured as sensing beings, reveal a more-than-human, phenomenal landscape in process. The hide *enmeshes* humans and ospreys in particular situated relationships, enabling the study of avian life by wardens nearby. Just not *too* near.

Indeed, these negotiations are often threaded through accounts of hide-work. American wildlife photographer Francis Herrick (1901: 5) describes at length the need to carefully acclimatise birds to the component parts of the assembled hide apparatus through their gradual introduction. Eventually, as the bird becomes indifferent, ‘natural’ behaviours can be documented. Likewise, British photographer Eric Hosking relays several such anecdotes. In one instance, he describes incrementally moving a hide closer to a nesting partridge over several days, allowing the bird to recognise the structure as harmless. Similar tactics, involving setting up a “dummy lens” in the hide before attempting to capture any images, were deployed to photograph buzzards (Hosking and Newberry, 1943: 1-2; 51-2). Rather than suggesting avian subjects fooled by trickery, or offering evidence of mechanical animal agents (Crist, 1999), these stories fuel speculation in the manner Despret (2013) advocates, regarding the agential role of other creatures in the landscapes being enacted. As Lorimer, Hodgetts, and Barua (2017) emphasise, one should not pre-define the capacities of animals, or presume to know the dimensions of their affective worlds. Instead, tracing animals’ atmospheres requires empirical attention to lives lived. This necessarily involves a risky and speculative praxis of empathising and attuning to contingent expressions of more-than-human vibrancy.

719 Conclusion

720

721 Excepting extreme events, ospreys nesting at Loch Garten have learned *not* to be affected
722 by humans in their landscape. Such ‘indifference’ is historically and geographically
723 contingent. Reckoning with the haunting presence of animal agency helps elaborate
724 (here, historical) animal landscapes. Paying attention to the logs of osprey behaviour
725 reveals landscape’s ongoing negotiation. Through this record, co-produced between
726 birds and humans, one becomes aware that the geographies the hide effects –spaces
727 apparently purified of human presence – are contingent upon the *look* of the osprey.
728 Whilst ospreys might be disaggregated into tabulated behavioural tics, the landscape in
729 which such knowledge is produced is haunted by their excessive presence as perceiving,
730 responding beings. Consequently, humans as recognised as constituent of the materiality
731 of *ospreys’ landscapes*. The reversibility of landscape (Wylie, 2006) extended beyond the
732 human offers an ontological and epistemological provocation: *we* are also a part of the
733 perceived materiality of worlds, as well as subjects perceiving those worlds. If, following
734 Berger, less deceptive accounts of the landscape begin by “[situating] ourselves within
735 [them]” (1972: 11), then this ‘situation’ surely comprises more than performed cultural
736 conventions. It also implicates our presence as *bodies*, affecting (and affected by) other
737 creatures in the course of landscape’s unfolding *event*.

738

739 I propose the hide was (and is) neither invisible nor ‘neutral’ in enacting landscape.
740 Rather, the hide is a particular technology of involvement, a machine producing
741 particular kinds of animal landscapes. Their presence (along with that of the humans
742 contained within) is *tolerated* by the birds being observed. Ospreys at Loch Garten are (at

least partially) aware, and *accepting*, of human presence. When humans transgress agreed limits to geography and practice, ospreys express alarm. Accounts of human-osprey interactions present within the logbooks reveal intimate geographies enabling proximity. This record, be read as a transcript of osprey behaviours, must therefore be put back into the context of its production (see Benson, 2010: 35) rather than extrapolated as a model for other, equally specific, instances of osprey life and landscape.

Observations of other raptors, such as the sea eagle (Cosgrove *et al*, 2017) suggest similar capacities for learning to recognise and tolerate regular, nonthreatening disturbance. Such indifference is demonstrably a key ingredient in the continued existence of many industrial and conservation-oriented animal landscapes, given the legislative protection that permits such activity only where there is no undue disturbance to protected birds.²⁴ It follows that the production of landscapes in which humans and ospreys can both exist and flourish is an open question, requiring “the hard work of species crafting workable languages” (Haraway, 2008: 217) that sustain workable co-presences. The stakes of getting relations right are illustrated by the experiences of Corsican ospreys, and the impacts that tourist vessels, passing closer than 250m to active nests, appear to have upon reproductive success (Monti *et al*, 2018). Elsewhere, observations suggest frequent intrusions prompt male birds to spend more time guarding eyries from territorial encroachment, and less fishing or mating (Mougeot, Thibault, and Bretagnolle, 2002). Osprey tolerance is clearly malleable. What is required is an appreciation on the part of humans regarding our role affecting flourishing osprey landscapes. Equally, we should listen for calls of alarm.

767 The ontology of animal landscapes proposed here requires recognising the active role of
768 humans as constituents of *animals' landscapes*. Our experiences of landscape are
769 contingent upon the ways in which we too are observed (Berger, 1977). Landscape, here
770 an event of overlapping contingencies, involves different agents and entities that affect
771 and are affected by each other, regardless of how human apparatuses define the limits of
772 this eventfulness. The continued presence of hides, and the production of ornithological
773 knowledge, would be far more challenging with ospreys *intolerant* of our presence.
774 Paying attention to the fact that, amidst sites managed for their conservation and study,
775 ospreys too observe *us* emphasises these landscapes as the outcome of active
776 involvement between humans and other creatures, going some way toward meeting their
777 gaze.

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779

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784

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1025 **Author Biography**

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1032 **Figure Captions**

1033 **Figure 1: The wooden forward hide at Loch Garten, 1959. Photo by Lord Hope,**
1034 **reproduced with kind permission from the archives of the Scottish Ornithologists'**
1035 **Club.**

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- ¹ Charteris, H. July 1962. 'All Eyes on the Osprey' *The Telegraph* [Newspaper cutting]. RSPB Sandy, Classmark 01.05.709: p4.
- ² A detailed historical account of 'Operation Osprey' is provided by Lambert (2001).
- ³ Both of these threats are neatly caricatured in an account provided by former RSPB Secretary Philip Brown (Brown, 1962). He recalls his experiences of two incidents of disturbance to the ospreys on 11 May 1958 where, in the space of 30 minutes, both a curious birdwatcher and a known egg collector were apprehended near the eyrie and escorted away.
- ⁴ Sandeman, G. 1958. 'Osprey (*Pandion haliaëtus*)' *The Rarer Birds of Prey: Their Present Status in the British Isles, RSPB Occasional Publication No. 28*. RSPB Sandy, Library Collection. Classmark 01.03.13.
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- ⁷ Waterston, G. 6 June 1971. 'Comments on Theft of Loch Garten Osprey Eggs' – RSPB Scottish Office, Early Operation Osprey, Box d117, uncatalogued.
- ⁸ The author visited the Loch Garten hide in July 2014, and later volunteered as an osprey warden in May 2016.
- ⁹ Instructions page in the Loch Garten osprey log for the 1961 breeding season, vol. 2 of 3 – RSPB Forest Lodge, uncatalogued microfiche, Sheet 4.
- ¹⁰ Memo from Mike Everett to David Lea, RSPB reserves department. 13 February 1969. 'Operation Osprey – Log Books' – RSPB Scottish Office, Early Operation Osprey, Box d117, uncatalogued.
- ¹¹ Entry from the Loch Garten osprey log for the 1958 breeding season, vol. 2 of 2 (1 June 1958) – RSPB Scottish Office, uncatalogued microfiche, Sheet 1.
- ¹² Entry from the Loch Garten osprey log for the 1978 season, unknown volume (16 May 1978) – RSPB Forest Lodge, uncatalogued microfiche, Sheet 2.
- ¹³ Entry from the Inshriarch osprey log for the 1963 season, vol.1 of 1 (19 May 1963) – RSPB Forest Lodge, uncatalogued microfiche, Sheet 1.
- ¹⁴ Frank Hamilton's Bird Diary 1949-1959. Archive of the Scottish Ornithologists' Club. Classification 3.18, Shelf 3/2, Box: 360: 519.
- ¹⁵ Entry from the Loch Garten osprey log for the 1969 breeding season, unknown volume (11 June 1969) – RSPB Forest Lodge, uncatalogued microfiche, Sheet 10.
- ¹⁶ Consider the controversial approval of the festival 'T in the Park' to be held at Strathallan Castle Estate in 2015, despite the proximity of an osprey nest within 500m of the festival area. Whilst Scottish Natural Heritage recommended a minimum distance of 750m, the festival was allowed to go ahead, and the birds appeared to tolerate the noise and presence of festivalgoers.
- ¹⁷ Frank Hamilton's Bird Diary 1949-1959, op cit.: 520.
- ¹⁸ Entry from the Loch Garten osprey log for the 1959 breeding season, vol. 4 of 8 (2 July 1959) – RSPB Forest Lodge, uncatalogued microfiche, Sheet 17.
- ¹⁹ Entry from the Loch Garten osprey log for the 1983 breeding season, vol. 3 of 3 (17 July 1983) – RSPB Sandy, uncatalogued.
- ²⁰ Minutes from a meeting of the RSPB Council (8 June 1967) RSPB Council Minutes, April 1949-February 1960 – RSPB Sandy, Classmark 01.01.11.
- ²¹ Entry from the Loch Garten osprey log for the 1968 breeding season, vol. 2 of 3 (17 June 1968) – RSPB Forest Lodge, uncatalogued microfiche, Sheet 6.
- ²² Entry from the Loch Garten osprey log for the 1969 breeding season, unknown volume (15 June 1969) – RSPB Forest Lodge, uncatalogued microfiche, Sheet 10.
- ²³ Entry from the Loch Garten osprey log for the 1969 breeding season, unknown volume (29 April 1969) – RSPB Forest Lodge, uncatalogued microfiche, Sheet 3.
- ²⁴ See Wildlife and Countryside Act (1981) Chapter 69, Part 1, 'Protection of wild birds and their eggs', 5(a); 5(b) for laws on disturbance of Schedule 1 birds (includes the majority of raptors).