

*Progress reports*



# More-than-human social geographies: posthuman and other possibilities

Ruth Panelli\*

Department of Geography, University College London, Gower Street, London WC1E 6BT, UK

**Abstract:** While ‘the social’ is problematized in diverse ways in current geographical debates this report reflects on the ongoing relevance of social geographies, especially those that attend to the complexity and interconnectivity of life. This review outlines three ways in which society-nature relations are being interrogated via: poststructural, posthuman and Indigenous foci. It concludes that important questions of social difference and unequal power relations remain relevant for more-than-human geographies.

**Key words:** indigenism, more-than-human-geographies, poststructuralism, posthumanism.

## I Introduction

In their recent US-based review, Del Casino and Marston (2006) argued that social geography is ‘everywhere and nowhere’ – a subdiscipline that has no formal name or grouping within the USA but which is significant in many research agendas addressing diverse sociospatial relations. This finding also resonates in other settings where the ‘cultural turn’ of recent decades has seen social geography occupying a paradoxical position at both margin and centre (Del Casino and Marston, 2006: 1003). Even as ‘the social’ is problematized by newer debates (including those reviewed in this report), concerns about uneven living conditions, social difference, identity struggles, and unequal social power relations have become so widespread as to be an almost invisible central base for many

geographic research programmes. While the fortunes of specialist research groupings may flourish around particular social differences (eg, children, gender, sexuality) or social theory (eg, postcolonial or non-representational theories), the broad questions surrounding unequal social lives and choices continue to inspire many social geographers’ projects and practices.

These conditions coincide with human geographers’ increasing awareness of the complexity and interconnectivity of life. The never neat divisions between the economic, political, cultural, environmental, and the social have been further exposed as the densely entwined character of contemporary lives becomes more evident via discussions of cosmopolitanism, mobilities, sociospatial relations, interdependence, intersectionality,

---

\*Email: [r.panelli@ucl.ac.uk](mailto:r.panelli@ucl.ac.uk)

responsibility, and relationality (eg, Massey, 2004; Hinchliffe *et al.*, 2005; Philo, 2005; Sheller and Urry, 2006; Smith *et al.*, 2007; Jeffrey and McFarlane, 2008; Jessop *et al.*, 2008). Three other bodies of thought add to our understanding of complex life in terms of society/nature relations. These developments have seen poststructural, posthuman and Indigenous peoples research within, and at the interfaces with, what might conventionally be understood as social geography. This report reviews these three fields, identifying the diversity of more-than-human<sup>1</sup> social geographies that are being written. First, I show how critiques of human/non-human relations draw on established poststructural and gender theory traditions within the discipline. I then point to how social geographic issues can (and arguably need to) be 'in the thick of' posthuman and other debates surrounding the complexity and interconnection of life (Franklin, 2006). Finally, I demonstrate the complementary contributions that can be made when scholars move beyond an exclusive focus on Euro/Anglocentric fascinations with posthuman debates and consider how co-productions<sup>2</sup> of geography might engage Indigenous knowledges and cosmologies (Shaw *et al.*, 2006; Johnson and Murton, 2007; Johnson *et al.*, 2007; Ginn, 2008).

## **II Social relations with nature and non-humans: discourses, bodies, benefits and uneven social action**

Beyond the growth in posthuman and hybrid geographies, a range of work at the blurred interface between social and cultural geography shows how people engage with experiences of nature, or relations with 'natural' environments and/or non-humans. One strand of this work, stemming from earlier animal geographies (Philo and Wolch, 1998; Wolch and Emel, 1998; and later Philo and Wilbert, 2000) includes recent studies of both regular relations with companion animals

(Power, 2008) and occasional ecotourist experiences of 'wild' animals (Besio *et al.*, 2008). Social values and yearnings for animal encounters and socio-animal relations are emphasized. Power (2008: 552) illustrates the social and material ways that human-dog families are constructed through home-making, boundary negotiations and 'close interaction, cohabitation and engagement', while Besio *et al.* (2008) mobilize poststructural theories of gender, sex and embodiment to read the ways in which dolphins are presented in ecotourism. Besio *et al.* illustrate how contrasting social meanings in discourses of wild sexuality and maternal devotion respectively boost the ecotourist value of the tour and shape measures to protect dolphin environments.

Other poststructural examples of more-than-human social geographies (of gardening, yoga and surfing) also show how contrasting social meanings of nature are mobilized and unsettled. From a critical social geography perspective, they demonstrate how differing groups of people have complex relations with 'nature' which coincidentally reinforce social differences and wider power relations. For instance, Longhurst (2006: 589–90) demonstrates how New Zealand gardens are paradoxical spaces, reinforcing both sociality and social conflict, but also portraying the inscription of 'colonial and postcolonial discourses' and reproducing '[p]owerful discourses of race, class and gender'. In a contrasting activity, Waitt (2008) records how surfing involves both diverse physical experiences (with water, reef, weather and so forth) that entwine with a powerful range of gendered, sexualized and racialized discourses. Waitt demonstrates the spatialities of performing dominant, gendered subjectivities where white, heterosexual, able-bodied men congregate in challenging waters as they attempt the 'killing' of waves and white, heterosexual, able-bodied women gather in and out of the water to socialize in,

or connect with, 'nature' (see also Little and Panelli, 2007, for an earlier reading of nature and heterosexuality in 'outback' Australia).

The social value and/or benefits of body/nature relations is also being explored in other settings. For a select population of participants who can afford the travel and costs involved (for yoga and massage retreats), Lea (2008: 93, 96) shows there is the opportunity to explore senses of self and body engaged with stone/floor, sun, tree and earth as "'nature" becomes a performative actor' and participants have 'the opportunity to open up a different mode of inhabiting place and relating to ... selves'. This work complements and questions therapeutic landscape literatures, and exposes the mixture of beneficial and uncomfortable body/nature encounters. Similarly, Parr's (2007: 539) recent analysis of mental health and horticultural practices also troubles 'the social making of nature as "therapeutic"'. This nuanced review of the historic and contemporary 'cultivations' of mental health shows that while healing and restorative powers may be ascribed to gardening and 'nature work' horticultural components of mental health care also become enrolled in wider discourses and demands regarding discipline and citizenship (that benefit capitalist societies).

Finally, nature is implicated in a wide variety of other studies that draw at least tangentially on the heritage of discourse analysis with regard to social movements and politics for change. For instance, Buller (2008), Davison (2008) and Lorimer (2008) critique the multiple and sometimes contradictory constructions of nature (and conservation, biodiversity, wolves and wildlife) within contrasting legislative, national and personal settings. These pieces speak to posthuman debates (discussed in the next section) and while they engage cultural geography dialogue each author demonstrates the significance of social geographic issues. For example, Buller (2008) reveals the group interests and (social and

economic) gaps that separate 'local farmers, park managers, hunters, and naturalists' in the politics surrounding biosecurity-versus-biodiversity debates concerning the re-introduction of wolves to the French Alps, while Lorimer (2008) exposes the social ideals and colour-coded aesthetics of urban social movements for 'green space' that are challenging the possibilities for 'brownfield wildlife' conservation in the UK. In a complementary fashion, Davison shows how Australian environmentalists' everyday worlds involve contradictory and ambivalent 'nature-talk' and life in suburban, leafy, middle-class suburbs.

Cumulatively these works emphasize the discursive and bodily spaces in which social values of nature and non-humans are engaged, 'killed' and 'cultivated'. Such research highlights the uneven social-nature experiences available to different groups, and the degrees to which people may be differentiated, disciplined or ignored in contrasting forms of 'nature talk' or 'nature work'. There remains enormous scope for social geographies to unravel the uneven demographics, actions and implications surrounding these perspectives and practices.

### **III Hybrid, networked and posthuman/ist geographies**

Social geography has long troubled the binaries that might be used to frame the social world (eg, as more complexly gendered, racialized or sexualized). In recent years, however, the influence of Whatmore's (2002) *Hybrid geographies* and the popularity of actor-network theory in some quarters have provided new ways to unravel binaries, especially those between human and non-human subjects. Actor-network theory and non-representational theories of performativity have been applied to investigations of the relational agency of animals, gardens, and trees (Hitchings, 2003; Cloke and Jones, 2004; Power, 2005; Fox, 2006; Cloke and Pawson, 2008). While many of these works sit comfortably within a cultural geography

identity, they are also intensely social projects as authors acknowledge and document social-nature constructions and performances (eg, of memory and public leisure: Cloke and Pawson, 2008) or the personal efforts and social tensions encountered within gardens (eg, over plant choices and neighbour differences: Head and Muir, 2006; or the competition and cooperation found between people and plants: Power, 2005). Head and Muir (2006: 522) argue that the ‘social dimensions of these networks need as much attention as the biological ones’ and Power’s (2005) rereading of gardens (away from traditional accounts of human achievement over passive nature) begins to develop the social dimensions necessary to investigate more-than-human social geographies. She records contrasting ways human and non-human agency intersect, clash or collaborate to produce hybrid gardens where ‘neither human nor non-human was central to their construction’. This complements other geographies of more-than-human encounter that can be difficult or unstable (see, for example, Bear and Eden’s 2008 ANT reading of the multi-actor, fluid, geographies of rupture and disruption in fisheries certification).

Turning to the more specific development and application of posthuman geographies, some understanding of definitional complexity is necessary. Castree and Nash (2004) identify how notions of posthumanism range from apocalyptic hyperbole and lament of a *historical condition* – the demise of the ‘human’ in the face of biotechnological advances (eg, Fukuyama, 2002; Virilio, 2003) – through to a range of *analytical-philosophical positions* that ontologically question or deconstruct the human subject.

Braun (2004: 273) elaborates on these latter developments, suggesting three sets of meanings attached to posthumanism: (1) those that inquire ‘after the *figure* of the human, its fixing and bounding. It is thus another name for vigilance, for a “deconstructive responsibility”’; (2) those that name

‘the *emergence* of the human, the human as project and practice, the body as an outcome of the “infecting” of the world’; and (3) those that signal ‘*non-anthropocentrism*, for recognizing a “vital topology” that extends far beyond us, and that is not of our making alone ... it is focused ... on displacing the hubris of humanism so as to admit others into the calculus of the world’.

Thus far, discussions concerning post-humanist geographies have most readily been pursued by those questioning the notions of the human and humanity, and professionally identifying with nature-culture agendas (eg, Anderson, 2001; Whatmore, 2002; Braun, 2004; Castree and Nash, 2004). Nevertheless, social geography’s established interests, questions and practices are deeply significant in many cases. Some scholars are engaging with this directly, while other writers tackling posthuman/ist debates refer in passing to social questions and issues. The following discussion explores some of this diversity, including the social practices and spaces in which ‘the human, nature and culture continue to work even in accounts which suggest their implosion’.<sup>3</sup>

The interconnected *becoming* of life in its more-than-human form is being documented in numerous ways. Human bodies and (residential and public) gardens present two such examples where boundaries are increasingly unsettled and ruptures in social meanings and borders occur (Coyle, 2006; Davies, 2006; Ginn, 2008) to produce a sense of ‘humans as enmeshed with rather than outside non-human nature’ (Head and Muir, 2006: 510). Across these works, and those that explore the politics of diverse flora and fauna (eg, Hinchliffe *et al.*, 2005; Bingham, 2006; Franklin, 2006), the dynamism of a more-than-human world is portrayed in scholars’ attention to the processes of entanglement. These are diversely conceptualized in notions of: *becoming*, *cosmopolitics*, *extension*, *friendship*, *hybridity*, *resilience*, *rupture* and *subversion*. For instance, Coyle (2006) shows the *rupture* of boundaries around the

'autonomous human subject' via the hybrid animal-human becomings that pepper New Zealand debates over biotechnology, nature and human being. She demonstrates that while public responses reflect the diversity of contrasting posthuman perspectives (eg, of Virilio and Fukuyama, through to Haraway, and Hayles) New Zealand perspectives are expressed in a 'language of everyday life'. These narrations reflect the historic relations Maori and Pakeha have developed with 'nature' including contrasting spiritual beliefs and economic pragmatism. Franklin (2006) also investigates a posthumanist reading of nature in an Antipodean context, documenting the *becoming* of the eucalypt. He interrogates 'the relationship between gum trees and Australians ... [showing] how they are mutually constitutive of each other' in contrasting fire regimes. Traditional, low-intensity, functional burning by aboriginal groups within their country drew people and eucalypts (and other flora and fauna) into close relations. But in the last century the relatively uncontrolled fuelling agency of eucalypts, and the community drama and firefighting heroism and arson of recent years, leads Franklin (2006: 570) to conclude that the 'gum tree ... has become a ubiquitous and powerful actor in Australian society, forcing quite profound changes in the landscape and social structure'.

Beyond the 'totemic nature' of a certain tree species, Head and Muir (2006) turn to the more mundane arena of the suburban garden to demonstrate other material and social relations that produce processes and results of *hybridity, rupture and resilience*. They show how social histories frame definitions and boundaries of indigeneity, environmental management, and belonging as these are played out in garden encounters. They also argue that attempts to purify and separate spaces and species exposes social relations and tensions (resilience and rupture) both between people, and between people and plants (weeds, self-seeding shrubs and so forth). See also Ginn's (2008) analysis

of the *subversion* of colonial *extension* of European nature framings within a New Zealand botanical garden setting.

The capacities of non-human beings and the broadening of living relations is also supported by Bingham's (2006: 488) account of the possibilities of *friendship* as 'a term which we might use to describe a relationship with the radically (nonhuman) other'. Again in a piece more familiar to certain cultural geography circles, this work speaks powerfully to social geographers interested in theorizing relations and the politics of relating. In this case Bingham shows how connections between bees, butterflies and bacteria (as neighbours of GM crops) intersect with the interests of beekeepers, organic farmers and lay entomologists. He argues that 'there is no reason to think that ... we have to conceive social life simply in terms of relations between people, but instead can revision it in terms of relations between people and things, recognizing that it is always coproduced' (Bingham, 2006: 487). Engaging Derrida's (1997) conception of friendship and Nancy's (2000) advocacy of being-singular-plural in more-than-human coexistence, Bingham challenges us to move beyond the fiction of human mastery over all things to a point where 'we might derive a "*cosmopolitics*" that is able to think (and perform) Nature and Society at the same time' (my emphasis).

Across these works, the everyday, the iconic, and the ethical qualities of sociality are shown to include a set of more-than-human encounters. Social differences and uneven powerful meanings are exposed and social histories and contemporary everyday encounters are evident as different social groups experience the resilience, or subversion or friendship that may be possible beyond a human/non-human binary. Opening the boundaries previously used to delimit the social and the natural, the human and the non-human, does not dissolve social agendas. Rather, the works discussed in these first two fields of scholarship suggest that the bases

of social meanings, uneven power relations and alternative politics may be enlivened by acknowledging the diversity of ways in which social geographies are always more or less involved in more-than-human contexts. This point is further emphasized in the third field of literature.

#### IV Indigenous alternatives

Following earlier examples (eg, Anderson, 2001; Whatmore, 2002) some scholars are thinking across western/white-Anglo framings of society and environment to engage other older, Indigenous cosmologies (eg, Franklin, 2006; Ginn, 2008). Such efforts emphasize the significance and richness to be gained by moving beyond dominant forms of western (social) science and ethics. Johnson and Murton (2007) elaborate on these matters, critiquing 'the long modern "disenchantment" between Western civilization and nature' and the limits of Enlightenment thinking and European systematizing and subjugation of nature and other knowledges. They contend that moving beyond 'the Enlightenment meta-narrative which has served to separate humans from non-human nature will require the telling of a dramatically different story in Western thought' in ways that ensure that mainstream academic circles seriously consider Indigenous scholarship and alternative native knowledges (Johnson and Murton, 2007: 124–25). Franklin's account of Indigenous burning regimes with Australian eucalypts illustrates this type of effort, and he advocates learning from aboriginal practices of maintaining a greater presence with forested country.<sup>4</sup> In complementary ways, Ginn's (2008) reading of eco-nationalism and (post)colonial nature in the Christchurch Botanical Garden also includes detailed acknowledgement of the ontological gulf between Maori and colonial populations:

[For Maori] 'Nature' exists not before society as a separate realm, but as a family tree, without firm demarcation between the supernatural, the natural and the social

(Marsden 1988). This puts Maori views of the non-human at odds with the Western view of nature as external and antecedent to society. (Ginn, 2008: 339)

Ginn shows how Maori demands for customary access to resources trouble the western preservationist mentality, as well as the ontological divide between nature and culture. He concludes that preservationist and conservationist paradigms are challenged both by the non-binary understandings of nature and society and by active use-and-care relations between them.

Contemporary Indigenous (more-than-human) relations continue to draw on ancient cosmologies and sustain understandings of reciprocity and responsibility (Johnson and Murton, 2007; Panelli and Tipa, 2007). While 'unabashedly [continuing to] discuss the metaphysical', these reciprocal relations complement Bingham's (2006) wonderings about more-than-human friendship. Although stemming from different philosophical histories and foci, both French theorized friendship and Indigenous articulations of reciprocity convey forms of relating that recognize the simultaneous existence of difference and connection; of 'being with others' (Bingham, 2006: 496). Indigenous perspectives provide social geographies with additional complex ways to interpret such relations (within both Indigenous populations and wider ones). Using Maori examples, McCreanor *et al.* (2006) record intersecting 'natural' and 'social' connections to place, while Panelli and Tipa (2009) illustrate some of the more-than-human relations surrounding diverse Maori food practices. Importantly, these cases note that not all Maori people will have access to their traditional lands, resources or *rangatiratanga* (exercise of tribal authority). Nevertheless, forms of co-relation with place via *whakapapa* (genealogy and cultural identity), *whenua* (land), *moana* (sea) and *mahinga kai* (traditional food resources and practices) can provide ways in which Maori can access senses of connection and respect.

The continuance of Indigenous social and cultural knowledges and relations in contemporary contexts is also emphasized by Watson and Huntington (2008) in their experimental work that contrasts knowledge of (moose-hunting) Koyukon Athabascans with wildlife biologists and ecologists. Forms of (conscious and other) Koyukon knowing are detailed as hunting is recounted as ‘the practice of an ethical relationship with the nonhuman’ – including the need ‘to think like a moose to hunt them with respect’ (2008: 257, 265). While a review of this sort cannot do justice to the significance of the practices and knowledges shared in Watson and Huntington’s work,<sup>5</sup> it is significant that they show how Indigenous approaches can ‘also productively contribute to discussions of the ethical and political implications of posthumanism’ (p. 258). In particular, their work presents ‘one kind of amodern politics [where] Koyukon spirituality accomplishes a politics whereby humans are no longer assumed to be the lone actor in relation with nonhumans’ (p. 271) and their writing provides an example of alternative assemblages that may respect and circulate contrasting knowledges in new and fruitful ways.

## V Conclusions

In part, this report responds to Castree’s (2004: 191) advocacy for ‘close analysis of nature-talk in any and all realms of society’. It has affirmed Del Casino and Marston’s (2006) observation that social geographies can be ‘everywhere’ and argues that social geographic thinking can be effective in highlighting the many implications and tensions found when work beyond nature/culture binaries is attempted. I have suggested that poststructural, hybrid, posthuman and Indigenous perspectives all offer conceptual resources and challenges which social geography can embrace as scholars chart the boundaries and intersections that exist between the social and other dimensions of life.

A core feature of the works reviewed in this report involves the theoretical resources

available for thinking more deeply about social relations. The relational dynamics occurring between people and the ‘non-human’ inspire conceptions as diverse as: becoming, cosmopolitics, rupture, subversion, resilience, friendship, complex reciprocity and amodern politics. These ideas have immediate efficacy in more-than-human geographies but they also have wider applications within the ‘abundant social world’ that includes the traditional, people-focused agendas of social geography (Bingham, 2006: 496). These perspectives provide new energies to critique the uneven and political ways many western societies enrol nature (eg, disciplining Scottish mental health populations; reconstructing marshes and Italian society; or creating NZ horticultural iconographies: Parr, 2007; Caprotti and Kaika, 2008; Cloke and Pawson, 2008). This type of work can continue to support the social geographic tradition of troubling, and struggling with, difference (Valentine, 2008) – ensuring we critique how socially constructed subjects are implicated in different environments and how contrasting power relations reproduce discipline, resistance, reciprocity or other forms of generosity. In such ways social geographers can make important future contributions to more-than-human geographies by sustaining the questions around which groups, and whose politics, support dominant society/nature relations.

Just as the literature is deepening around diverse social-nature encounters, there is a growing need to return to more difficult terrains. How are hegemonic human/non-human binaries sustained and for whose advantage? Who does not access ‘therapeutic’, invigorating or reciprocal relations with nature? How can those positioned as abject and disenfranchised reconnect with life-enhancing more-than-human encounters? Yet other, less-developed research agendas include the liminality, regulation, emotions, and interconnected borders and processes surrounding the reproduction of life and the conditions of death – but see tangents in

Coyle (2006), Mansfield (2008) and Watson and Huntington (2008). Such works, with their various attention to birthing, well-being and dying, challenge us to better recognize the interweaving of 'the social' and 'the natural' while forging new directions for more-than-human social geographies.

### *Acknowledgements*

This work has benefited in contrasting ways from work, communications and/or feedback with Gail Tipa, Jo Little, Richard Welch and Noel Castree.

### **Notes**

1. My thinking about 'more-than-human' social geographies formally draws conceptual inspiration from Sarah Whatmore's (1999; 2002; 2004) writings and her preference for 'more-than-human' rather than 'posthuman' signatures and thinking (Whatmore, 2004: 1361). It also benefits from the inspiration afforded by alternative co-productions of geographic knowledge like Watson and Huntington (2008), and conversations shared with Gail Tipa.
2. The relations and doings of geography (ie, intersections, interfacing and co-productions) signal the complexities and power-laden implications of relations and products/outputs which will receive more detailed attention in my third and final report.
3. This quote represents Castree and Nash's (2006: 502) description of critical posthumanism but it is equally potent as a lens through which to consider the social geographies of posthumanist-inspired scholarship.
4. This argument is complex and includes the multidimensional nuances of conceiving human/forest relations as relations *with* each other, and understanding 'country' as a complex Indigenous Australian concept (Rose, 2004; Franklin, 2006).
5. The constraints of this review also limit the number of cases that can be effectively reported, but for another Indigenous case of being with a more-than-human world see Mazzullo and Ingold's (2008) account of Sámi mobility as a way of 'being along' and being 'entwined within the land'.

### **References**

- Anderson, K.** 2001: The nature of 'race'. In Castree, N. and Braun, B., editors, *Social nature: theory, practice, politics*, Oxford: Blackwell, 64–83.
- Bear, C.** and **Eden, S.** 2008: Making space for fish: the regional, network and fluid spaces of fisheries certification. *Social and Cultural Geography* 9, 487–504.
- Besio, K., Johnston, L.** and **Longhurst, R.** 2008: Sexy beasts and devoted mums: narrating nature through dolphin tourism. *Environment and Planning A* 40, 1219–34.
- Bingham, N.** 2006: Bees, butterflies, and bacteria: biotechnology and the politics of nonhuman friendship. *Environment and Planning A* 38, 483–98.
- Braun, B.** 2004: Querying posthumanisms. *Geoforum* 35, 269–73.
- Buller, H.** 2008: Safe from the wolf: biosecurity, biodiversity, and competing philosophies of nature. *Environment and Planning A* 40, 1583–97.
- Caprotti, F.** and **Kaika, M.** 2008: Producing the ideal fascist landscape: nature, materiality and the cinematic representation of land reclamation in the Pontine Marshes. *Social and Cultural Geography* 9, 613–34.
- Castree, N.** 2004: Nature is dead! Long live nature! *Environment and Planning A* 36, 191–94.
- Castree, N.** and **Nash, C.** 2004: Posthumanism in question. *Environment and Planning A* 36, 1341–43.
- 2006: Posthuman geographies. *Social and Cultural Geography* 7, 501–504.
- Cloke, P.** and **Jones, O.** 2004: Turning in the graveyard: trees and the hybrid geographies of dwelling, monitoring and resistance in a Bristol cemetery. *Cultural Geographies* 11, 313–41.
- Cloke, P.** and **Pawson, E.** 2008: Memorial trees and treescape memories. *Environment and Planning D: Society and Space* 26, 107–22.
- Coyle, F.** 2006: Posthuman geographies? Biotechnology, nature and the demise of the autonomous human subject. *Social and Cultural Geography* 7, 505–23
- Davies, G.F.** 2006: Patterning the geographies of organ transplantation: corporeality, generosity and justice. *Transactions of the Institute of British Geographers* NS 31, 257–71.
- Davison, A.** 2008: The trouble with nature: ambivalence in the lives of urban Australian environmentalists. *Geoforum* 39, 1284–95.
- Del Casino, V.J. Jr** and **Marston, S.** 2006: Social geography in the United States: everywhere and nowhere. *Social and Cultural Geography* 7, 995–1009.
- Derrida, J.** 1997: *Politics of friendship*. London: Verso.
- Fox, R.** 2006: Animal behaviours, post-human lives: everyday negotiations of the animal-human divide in pet-keeping. *Social and Cultural Geography* 7, 525–37.
- Franklin, A.** 2006: Burning cities: a posthumanist account of Australians and eucalypts. *Environment and Planning D: Society and Space* 24, 555–76.
- Fukuyama, F.** 2002: *Our posthuman future: consequences of the biotechnology revolution*. New York: Picador.
- Ginn, F.** 2008: Extension, subversion, containment: eco-nationalism and (post)colonial nature in Aotearoa New Zealand. *Transactions of the Institute of British Geographers* NS 33, 335–53.

- Head, L.** and **Muir, P.** 2006: Suburban life and the boundaries of nature: resilience and rupture in Australian backyard gardens. *Transactions of the Institute of British Geographers* NS 31, 505–24.
- Hinchliffe, S., Kearnes, M.B., Degen, M.** and **Whatmore, S.** 2005: Urban wild things: a cosmopolitical experiment. *Environment and Planning D: Society and Space* 23, 643–58.
- Hitchings, R.** 2003: People, plants and performance: on actor network theory and the material pleasures of the private garden. *Social and Cultural Geography* 4, 99–114.
- Jeffrey, C.** and **McFarlane, C.**, editors 2008: Theme issue: cosmopolitanism. *Environment and Planning D: Society and Space* 26, 420–536.
- Jessop, B., Brenner, N.** and **Jones, M.** 2008: Theorizing sociospatial relations. *Environment and Planning D: Society and Space* 26, 389–401.
- Johnson, J.T.** and **Murton, B.** 2007: Re/placing native science: Indigenous voices in contemporary constructions of nature. *Geographical Research* 45, 121–29.
- Johnson, J., Cant, G., Howitt, R.** and **Peters, E.** 2007: Guest editorial. Creating anti-colonial geographies: embracing indigenous people's knowledges and rights. *Geographical Research* 45, 117–20.
- Lea, J.** 2008: Retreating to nature: rethinking 'therapeutic landscapes'. *Area* 40, 90–98.
- Little, J.** and **Panelli, R.** 2007: 'Outback' romance? A reading of nature and heterosexuality in rural Australia. *Sociologia Ruralis* 47, 173–88.
- Longhurst, R.** 2006: Plots, plants and paradoxes: contemporary domestic gardens in Aotearoa/New Zealand. *Social and Cultural Geography* 7, 581–93.
- Lorimer, J.** 2008: Living roofs and brownfield wildlife: towards a fluid biogeography of UK nature conservation. *Environment and Planning A* 40, 2042–60.
- Mansfield, B.** 2008: Health as a nature – society question. *Environment and Planning A* 40, 1015–19.
- Massey, D.** 2004: Geographies of responsibility. *Geografiska Annaler Series B: Human Geography* 86(B), 5–18.
- Mazzullo, N.** and **Ingold, T.** 2008: Being along: place, time and movement among Sámi people. In Baerenholdt, J.O. and Granaas, B., editors, *Mobility and place: enacting European peripheries*, Aldershot: Ashgate, 27–38.
- McCreanor, T., Penney, L., Jensen, V., Witten, K., Kearns, R.** and **Barnes, H.M.** 2006: 'This is like my comfort zone': Senses of place and belonging within Oruāmo/Beachhaven, New Zealand. *New Zealand Geographer* 62, 196–207.
- Nancy, J.-L.** 2000: *Being singular plural* (translated by R.D. Richardson and A.E. O'Byrne). Palo Alto, CA: Stanford University Press.
- Panelli, R.** and **Tipa, G.** 2007: Placing well-being: a Maori case of linking cultural and environmental specificity. *EcoHealth* 4, 445–60.
- 2009: Beyond foodscapes: considering geographies of Indigenous well-being. *Health and Place* 15, 455–65.
- Parr, H.** 2007: Mental health, nature work, and social inclusion. *Environment and Planning D: Society and Space* 25, 537–61.
- Philo, C.** 2005: Geographies that wound. *Population, Space and Place* 11, 441–54.
- Philo, C.** and **Wilbert, C.**, editors 2000: *Animal spaces, beastly places: new geographies of human-animal relations*. London: Routledge.
- Philo, C.** and **Wolch, J.**, editors 1998: Through the geographical looking glass: space, place and society – animal relations. *Society and Animals* 6, 103–18.
- Power, E.R.** 2005: Human-nature relations in suburban gardens. *Australian Geographer* 36, 39–53.
- 2008: Furry families: making a human-dog family through home. *Social and Cultural Geography* 9, 535–55.
- Rose, D.B.** 2004: *Reports from a wild country: ethics for decolonization*. Sydney: University of New South Wales.
- Shaw, W.S., Herman, R.D.K.** and **Dobbs, G.R.** 2006: Encountering indigeneity: re-imagining and decolonizing geography. *Geografiska Annaler* 88B, 267–76.
- Sheller, M.** and **Urry, J.** 2006: The new mobilities paradigm. *Environment and Planning A*, 38, 207–26.
- Smith, J., Clark, N.** and **Yusoff, K.** 2007: Interdependence. *Geography Compass* 2, DOI: 10.1111/j.1749-8198.2007.00015.x.
- Valentine, G.** 2008: Living with difference: reflections on geographies of encounter. *Progress in Human Geography* 32, 323–37.
- Virilio, P.** 2003: *Art and fear* (translated by J. Rose). London: Continuum.
- Waite, G.** 2008: 'Killing waves': surfing space and gender. *Social and Cultural Geography* 9, 75–94.
- Watson, A.** and **Huntington, O.H.** 2008: They're here – I can feel them: the epistemic spaces of Indigenous and Western knowledges. *Social and Cultural Geography* 9, 257–81.
- Whatmore, S.** 1999: Human geographies: rethinking the 'human' in human geography. In Massey, D., Allen, J. and Sarre, P., editors, *Human geography today*, Cambridge: Polity Press, 22–39.
- 2002: *Hybrid geographies: natures, cultures, spaces*. London: Sage.
- 2004: Humanism's excess: some thoughts on the 'post-human/ist' agenda. *Environment and Planning A* 36, 1360–63.
- Wolch, J.** and **Emel, J.**, editors 1998: *Animal geographies: place, politics and identity in the nature-culture borderlands*. London: Verso.