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Disciplines

Education | Social and Behavioral Sciences

Publication Details

Wilbur, A. & Gibbs, L. (2018). 'Try it, it's like chocolate': embodied methods reveal food politics. *Social and Cultural Geography*, Online First 1-20.

'Try it, it's like chocolate': Embodied methods reveal food politics

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Abstract

Embodied methods have become popular tools for exploring subjective dimensions of social science research, including emotion and affect, as well as contributing substantively to empirical data. Concurrent growth of more-than-human research, in which the human subject is dethroned from an exclusive position of power and agency, offers an opportunity to explore methods beyond human subjectivity. This paper embraces this task by drawing on embodied methods in the context of food research, asking what the practices of transforming nonhuman matter into food reveal about the politics of food and the more-than-human world. Recounting field experiences from two discrete projects in Italy and Australia, we argue that being explicit about the role of the body in research has potential to elicit novel insights about politics and the contingency of human agency. Specifically, our research with food contributes to debates about the relationship between local knowledge and the market, animal welfare and farming standards, and wild foods and discourses of belonging.

Keywords: embodiment; more-than-human geographies; food politics; research methods; nonhuman agency; alternative food production

This paper published as:

Wilbur A & Gibbs L 2019 'Try it, it's like chocolate': embodied methods reveal food politics, *Social & Cultural Geography*, DOI: 10.1080/14649365.2018.1489976

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He begins sawing into the red skin of the chicken's neck while the bird remains silent and still, as if it knows there is no point in resisting ... Its fight or flight responses kick into gear and it tries to flap its wings. I hold it steady, hating that I'm winning such an unbalanced fight but conscious that its fate will be worse, its death more gruesome and prolonged, if I allow it to flap wildly, hanging upside down with its throat cut ... I'm holding it in my hands as its life force dissipates and this is a tangible sensation. I can feel that its nature has changed, that it has transformed from living being to carcass, from animal to meat (AW, field journal).

This paper explores how attentiveness to the more-than-human world, as experienced through bodily engagement, can inform research. The paper contributes to current debate in geography about research method; specifically, the relative capacities of 'conventional' and more 'innovative' methods to provide insights into more-than-human worlds and relations (Dowling, Lloyd & Suchet-Pearson, 2017). Here, we make a case for embodied methods for researching the processes involved in producing and consuming food. We aim to reveal how attentiveness to more-than-human interactions, through embodied research methods, can contribute to understandings of the politics of food.

To achieve these goals, we draw on two distinct empirical studies: one of alternative agricultural production in northern Italy, the other of wild food harvesting, as part of an arts-science collaboration, in south-eastern Australia. The projects are united by a shared concern for: (i) the processes by which plants and animals are transformed into food; (ii) alternative systems of food production; and (iii) how, and what, bodily engagements in field research can reveal about the production and politics of food.

Our research projects have been concerned with how phenomena unfold through intimate, embodied interactions between human and nonhuman actors, including plants and animals. Our methods of data collection, and consequent analyses, have depended upon physical performances, drawing on sensory input to shape cognitive interpretations of events.

Arguably, the same may be said of all research processes, which necessarily involve some corporeal activity; but we recognise that in some work, 'the researcher's presence becomes quite attenuated after setting the context of the fieldwork, often still becoming a ghostly absence' in subsequent analysis (Crang 2003, p. 499). We aim then to show how embodied methods have complemented the canonical ones of social science fieldwork (e.g. interviews, focus groups) (Dombroski, 2011; Dowling et al., 2017; Longhurst, Ho & Johnston, 2008), to inform our analysis of food production and politics.

The core concern of the paper is methodological. We are motivated by 'a desire to be clear about the merits of ... methodological choice' (Hitchings, 2012, p. 61). We argue that embodied methods enable a different sort of attentiveness to nonhuman entities and more-than-human processes than is possible through traditional social science research methods alone. We understand embodied methods as modes of problem-framing, field observation, and data collection that engage the senses and the body; in which sensory perception and physical actions are explicitly recognised. Following Hayes-Conroy and Martin (2010, p. 272), 'we privilege neither the physiological/body nor the social/mind in creating feelings ... but rather see them as a result of a relation between the two'. We seek to build on the work of others who have focused on embodied practices of *consumers* as the object of analysis (Roe 2006). Here, we turn our attention to the embodied practices of *the researcher*.

The structure of the paper is as follows: the next section reviews recent geographical research on embodied research methods, including work emerging from more-than-human scholarship and food politics. We then review contemporary currents in the politics of alternative food systems. The next section provides background to the two research projects we draw upon, including the shared concerns that bring them together. We then discuss the field research, focusing on the insights provided by embodied methods for understanding the more-than-human processes that led to the transformation of animals and plants into food. Finally, we conclude by considering broader implications for embodied research methods and food politics.

Embodied methods in more-than-human and food research

In a review of qualitative methodology in human geography, Crang (2003, p. 499) suggested that 'Geographers of late have been including the 'body' in their research topics but these ideas have had a muted impact in terms of thinking through qualitative research practice'. Similarly, Longhurst et al. (2008, p. 209) argued that although much work has been done on qualitative methods, little has focused on 'using the body as a tool in the research process'. In the years since these statements, significant progress has been made in placing the body at the centre of research, thus opening geographical research to a wider array of inputs and methods of analysis.

Substantial developments have been made in research methods that attend to the senses, including smell, taste, touch, sight and sound (Duffy, Waite & Harada, 2016; Longhurst et al., 2008; Pink, 2009; Waite, 2014); and to the role of mobility in research method (Büscher, Urry & Witchger, 2011; Dowling, Lloyd & Suchet-Pearson, 2016; Evans & Jones, 2011).

Embodied approaches to research method comprise a wide field; here we focus on research concerned specifically with the more-than-human and with food. In their recent review of

more-than-human research methodology, Dowling et al. (2017) consider 'conventional' and 'more innovative' methodological approaches. They argue that: 'although the more-than-human 'turn' is being thoroughly debated and engaged with in theory, the implications of this have not carried through to the same extent in terms of praxis' (Dowling et al. 2017, p. 823).

More-than-human research, broadly defined, has focused squarely on the bodies of humans and nonhuman others. Prominent themes are consideration of bodies other-than-human (Atchison & Head, 2013; Bear & Eden, 2011; Panelli, 2010); bodily interactions between humans and others in the research process (Lorimer, 2010; Patchett, 2015; Pitt, 2015; Whatmore, 2006); and more-than-human participatory (Bastian, Jones, Moore & Roe, 2017) and collaborative research (Bawaka Country et al., 2015; Wright et al., 2012). This work considers the bodies of humans and others, and the implications of embodied practices of the researcher.

Sitting within a broadly posthumanist tradition, such work holds a 'ceaseless scepticism about the claims made in the name of ... the human' (Castree et al., 2004, p. 1342). This work shares a commitment to de-centring the human as primary agent in a given context. This is not a misanthropic exercise (see Badmington, 2003), nor does it deny the often-disproportionate impact of humans on local and broader ecologies. Rather, it widens the lens on agency in a particular place, understanding social, environmental and political processes and outcomes as co-dependent on and emerging from more-than-human interaction. It examines relations in order to problematize a privileged human position in the world. 'Such a project aspires to re-imagine humanity as no longer detached from its creations, from the cosmos and the environment where it dwells, but rather as entangled in a web of relations in which humans are not the only active agent' (Battista, 2012, p. 67).

One significant contribution of this work is its reappraisal of specific plant and animal species *vis a vis* the environmental policies and politics to which they are subjected. Work in Australia, for instance, has provided policy critiques that draw directly from researchers' physical interactions with plants and animals. Head et al. (2015, p. 316) used participant observation, working with people who manage invasive plants, to challenge policy on native and non-native species management. They argue that 'scientists need to recognise what on-ground managers are doing with invasive plants, and that their adaptive strategies to establish the boundaries of cohabiting with these plants reflect a sensible approach to living in the Anthropocene'. Atchison and Head (2013) made a similar argument for allowing greater contextual subjectivity into management practice based on their interactions with non-native plant species, critiquing the tendency to collectivise plant bodies into an abstract whole, when those organisms exhibit different capacities in varied ecological niches. Gillon (2014) used walking interviews—a now well-established embodied, mobile method—in a master-planned estate to discover how social and aesthetic codes influenced perceptions of animal 'neighbours', creating categories of 'good' and 'bad' species whose treatment was determined by these subjective perceptions.

In part these studies echo earlier debates about tacit or local and formal scientific knowledge (Wilbur, 2014), but set themselves apart through their attention to how humans, events and worlds are *acted upon* by nonhuman species and more-than-human processes. This research demonstrates the considerable agency of the more-than-human in shaping outcomes and calls to action. Lorimer (2005, p. 85) identified the turn toward studies of 'embodied acts of landscaping'; of 'passionate, intimate and material relationships with the soil, and the grass, plants and trees that take root there'. He noted: 'These garden studies set out to make sense of the ecologies of place created by actions and processes, rather than the place portrayed by the end product'. In the years since his review, a similar focus has infused food and agriculture at

scales that extend well beyond the backyard plot or community garden, permitting visceral experience and diffused agency into conversations about topics such as hunger, animal welfare, economic and social justice, and cultural preservation. As Goodman (2016, p. 258) has noted:

while the study of food has spread throughout much of the discipline [of geography], it has also stood at the forefront of post-disciplinarity given that, when one studies food, it is impossible to separate out the notions of culture, space, economy, politics, and materiality with which it is so thoroughly imbued.

Accompanying these overtly political concerns has been a focus on how food and food politics intersect with sense perception and the body. Across cultures and social contexts, food is intimately linked with pleasure, disgust, knowledge, skill, conviviality, social status and economic activity. Relations are determined and reinforced through distinct material characteristics—flavour, texture, growth, reproduction, patterns of decay—which are in turn subjectively perceived and acted upon by those who produce, prepare, consume and discard foods (Carolan, 2011; Hayes-Conroy & Martin, 2010; Longhurst et al., 2008; Longhurst, Ho & Johnston, 2009; Phillips, 2014; Roe, 2006; Waitt, 2014; Waitt & Phillips, 2016). In her much-cited paper, Roe (2006, p. 106) took a relational materialist approach to introduce the concept of 'things becoming food'. She argued that such an approach can contribute new understandings of 'the relationship between nature and society, food production and food consumption'.

Importantly, human relationships with food (and things that become food) are not predetermined, but contingent upon cultural and material—more-than-human—interactions. This is evident in the work of Longhurst et al. (2008, 2009), who discuss a conflicted sense of duty in eating viscerally objectionable food with a diverse group of migrants in New Zealand,

noting how physical reactions can complicate ideals of both cross-cultural cohesion and research. Nevertheless, they use that discovery to push for social policies on migration that are more attentive to visceral experience, particularly fostering foodways for migrants to maintain elements of their local culture while integrating into that of their new country. Hayes-Conroy (2010) also used communal eating exercises to mount a critique of the purportedly progressive organisation Slow Food. While noting her own visceral reactions to the 'superior' products offered by Slow Food's chosen farms and producers, she critiqued the authoritarian stance on taste and quality revealed by some of its members: 'When food-based setups, whether 'slow' or 'fast', dictate one legitimate means of being affected by food, they deny other visceral experiences as somehow opposed to what it 'truly' means to have a body' (2010, p. 740).

Within this corpus of food research, the bodies of research participants are explicitly acknowledged, as a means of accessing empirical data that inform analysis. Embodiment is deeply implicated in knowledge production, and recognition of this can reveal how conclusions are reached via material contexts through everyday experience and multisensory interpretation, rather than as exclusively cognitive feats. Food becomes a site for competing expressions of power and carries a host of possible actions and reactions based on the manifold material characteristics of all that is edible. Possibilities unfold as food is understood as useful or desirable when it enters the realm of human sensory perception. This view echoes Stoller's (1989) call for more 'tasteful' research, in which food is regarded as an active agent, its sensory qualities producing discernible effects on researchers and other actors, which shape social, economic and political outcomes.

Through attention to bodies and food, agency becomes distributed across objects and species, which individually and together wield 'animating power' (Castree & Nash 2006, p. 503). A

focus on diffused or distributed agency allows relational bonds between multiple agents to serve as epistemological and ontological foundations for more-than-human projects. The human subject, in this view, exists in a perpetual state of becoming, with other agents influencing the 'making of the human being' (Whatmore, 2013). This reflects a form of Deleuzian assemblage thinking, whereby an assemblage, or 'ad hoc grouping, a collectivity whose origins are historical and circumstantial', is:

not governed by a central power: no one member has sufficient competence to fully determine the consequences of the activities of the assemblage ... [It] is made up of many types of actants: humans and nonhumans; animals, vegetables, and minerals; nature, culture, and technology (Bennett, 2010, p. 445).

Assemblage thinking has gained substantial momentum in human geography, including in post-human and more-than-human research exploring how power is distributed and leveraged across a multitude of actants. Such thinking allows insights into the roles of bodies, nonhuman species, and food in politics.

Arguably, a certain irony exists in emphasising the human body in order to investigate the complexity of more-than-human environments. Indeed, in their research on human-plant geographies, Head and Atchison (2009, p. 240) noted that 'We have some distance to travel in considering how we might give more voice to these particular non-humans without interposing more of ourselves in the picture.' As Pitt (2015) suggested, however, this may be somewhat inevitable given the inseparability of the human and nonhuman in research about 'nature'. We therefore follow Crouch (2003, p. 23) in understanding 'nature' as 'a partner in action; its character progressed into multiple possibilities of significance through what the individual does'. We also agree with Bennett (2010, p. 37) that distributed agency 'broadens the range of places to look for sources'; sources of phenomena that we observe as researchers, and that ultimately inform analyses that may otherwise be delimited by concepts of the social,

political, cultural, or biophysical. Such dissolution of conceptual dividers is both a goal and, some have argued, a growing achievement of posthumanist work (Panelli, 2010). We construe and construct nature as it acts upon us, human and nonhuman, forever in flux; a process by which “‘the human’ emerges as no less a subject of ongoing co-fabrication than any other socio-material assemblage” (Patchett, 2015, p. 72). This ‘ongoing co-fabrication’ applies directly to the politics of ‘nature’ and ‘food’, and to the methodologies through which we comprehend them.

More-than-human and food research have been enriched by attention to the body, and to the notion of distributed agency (Goodman, 2016; Hayes-Conroy & Martin, 2010). More-than-human scholarship has considered the bodies of nonhuman others and the body of the researcher in their interactions with the more-than-human world (e.g. Bastian et al., 2017; Bawaka Country et al., 2015; Head, Atchison & Phillips, 2015; Wright et al. 2012). Food research has closely examined the bodies of producers and consumers of food (e.g. Longhurst et al., 2008; Roe, 2006; Waite, 2014). Indeed, for Roe (2006), the *embodied practices of consumers* are the object of analysis. A good deal of research across both fields (more-than-human and food scholarship) explicitly links embodiment with politics (Bastian et al., 2017; Carolan, 2011; Head, Atchison & Phillips, 2015; Longhurst et al., 2008; Waite, 2014). In this paper, we seek to bring more-than-human and food research into closer conversation, by focusing on the *embodied practices of the researcher*, to shed light on food politics. In this way, we seek to draw upon and further develop research in both fields about the possibility of embodied methods to reveal politics.

Politics of alternative food systems

Several currents in the field of food politics are relevant to our research. Especially since the early 2000s, geographers have examined diversifying consumer markets, changes in food

technology, cultural trends and regulatory developments. This wide-ranging food politics research frequently reflects a tension between a perceived mainstream and an (often self-defined) alternative or opposition. In this respect, the physical sites where food is grown, transported, processed and consumed become vectors for the social and economic value assigned to plants and animals. When contrasted with industrial agriculture, organic smallholdings, for instance, 'become symbolic of self-reliance and cooperative relationships, or models for animal welfare standards ... that defy the efficiency-driven methods of high-volume meat production' (Wilbur, 2012, p. 27). The political radicalism implied in these projects emerges from the intended reconfiguration of dominant ethical norms and market relations, using the unique potential of rural spaces—in their capacity as regions of food production—as platforms from which to launch these challenges. Holloway (2002) projected rural enterprises of this sort as an oppositional use of space, visibly expressing resistance and demonstrating alternatives to relations of production considered unethical or exploitative.

Recalling Gibson-Graham's (2008) diverse economies, individual sites may host a range of values in varying degrees, in both complementary and contradictory ways. Guthman (2017, p. 15), for example, has explored the fault-lines between good intentions and material consequences, noting that 'the missionary practice of teaching others how to garden, cook, and eat has become a common mode of activism for those who want to effect social justice in food systems, albeit a mode that often reflects the desires of the givers much more than those of the recipients'. Identifying such inherent tensions in so-called 'alternative' food networks has become something of a preoccupation in the study of food politics. As new structures have emerged to promote 'natural', 'sustainable' and 'fair' foods, scholars have increasingly turned their attention from challenging mainstream or industrial food to a reflexive critique of alternatives. The primary concern of many critics pivots on a question of access. For example, Guthman et al. (2006) demonstrated that what may indicate fairness for producers can lead to

an elite capture of the most nutritious foods, thus creating, or re-inscribing, a highly uneven terrain of food justice.

Trauger (2007) suggested that although ethical underpinnings are often present in alternative food networks, any achievement of social justice has been difficult to definitively identify and replicate as a model. 'A major constraint to the development of alternative practices', claims Brunori (2011, p. 2), 'is that the conventional practices, even when recognized as exploitative, unfair or environmentally degrading, are already tested systems ... [which] minimize the risks of choice, or make choices easier by the actors'. This comment is perhaps especially relevant to organic food, which has been subject to significant critique on several fronts. Guthman (2004; 2007) and Goodman and Goodman (2007) have argued that the success of organic food has been achieved largely through appealing to those of a certain socio-economic status: health-conscious, sympathetic to progressive values, generally well-off and city-based. This niche market has allowed growers to charge higher prices for organic produce, leading some critics (e.g. DuPuis & Goodman, 2005; Guthman, 2004; Johnston, 2007; Jackson et al., 2008) to argue that organic produce represents a consumption divide shaped by incomes, with pesticide-free produce being kept out of reach of many lower-income households. While some researchers remain open to the possibility of truly counter-hegemonic food networks, their arguments form part of a large body of literature that challenges the orthodoxy of organic as an ethically superior choice. These critiques suggest an unfinished resolution to the notion of ethical or alternative food, and/or the potential for well-intentioned projects to become co-opted by less well-intentioned interests.

While the body is, even if by default, a presence in many studies of food politics, there is further potential for the bodies of researchers—and other entities in the research process, including plants and animals—to take on a more central role. In this paper we seek to

contribute to this field by explicitly bringing into conversation research on embodied methods and the politics of alternative food systems. We do so by focusing our attention on the bodies of researchers in the production and consumption of food, as more-than-human practice, and argue that doing so can produce insights into the politics of food and alternative food systems.

Dombroski (2011) noted that reactions to corporeality in social science scholarship have been mixed, with some welcoming the development as a more 'honest' approach, and others rejecting it as narcissistic and self-indulgent. We are encouraged by studies that acknowledge the role of the body in the research process, and offer a study in which the body—through embodied research methods; as an instrument of research (Longhurst et al., 2008)—casts light on politics.

Research approach: field studies and embodied method

This paper reflects on two distinct research projects, drawn together by common interests. The first examines alternative agro-food networks in northern Italy; specifically, practices and politics of back-to-the-land migrants (see also Wilbur, 2013, 2014). The second project considers the practice and politics of harvesting and eating wild foods in south-eastern Australia, as part of an arts-science collaboration undertaken with arts institute Bundanon Trust (see also Gibbs, 2014). The two projects are united through a shared commitment to interrogating: (i) the processes by which plants and animals are transformed into food; (ii) alternative systems of food production; and (iii) how, and what, bodily engagements in field research can reveal about the production and politics of food. Like others, we do not draw a sharp divide between production and consumption (Carolan, 2011; Goodman & DuPuis, 2002; Roe, 2006), but lean towards production in our empirical analysis to reveal something of the politics of alternative food systems.

Our research methods focus on the body; on embodied interactions with nonhuman animals, plants and materials, and with more-than-human processes. We take *embodied methods* to refer to sensory perception, and to the visceral—‘the realm of internally-felt sensations, moods and states of being, which are born from the sensory engagement with the material world’ (Hayes-Conroy & Hayes-Conroy 2008, p. 462). But in addition, we consider embodied methods to include the physical movement of the body in space; the musculoskeletal actions of grasping, holding, lifting and otherwise manipulating nonhuman materials. Specifically, we focus on the senses of smell, taste and touch; on the embodied process of ingesting food; and on bodily engagement in the physical labour of transforming animals and plants into food.

Through three vignettes we discuss what our research methods have revealed about the politics of food. Consistent with contemporary currents in food politics research our insights provide critiques of alternative food systems, including tensions and possibilities that emerge through alternative food practices. Specifically, the vignettes present insights into: relationships between local knowledge and the market; animal welfare and farming standards; and the notion of belonging among native and invasive wild food plant species.

Sensing seven kinds of sage: local knowledge and the market

Andrew’s research focused on back-to-the-land migrants in Italy; farmers who have adopted an agrarian lifestyle after a more conventional working life in the city. In general, back-to-the-landers concentrate in areas of marginal agricultural productivity, where land is cheaper or topography less favourable for large-scale farming. They are also likely to participate in alternative food networks, by necessity or design, often giving an overt political dimension to their agricultural practices (see Wilbur, 2012, 2013). Fieldwork with back-to-the-landers in 2010 involved participating in everyday farm practices including harvesting fruit and

vegetables, judging optimal harvest times, applying manure or compost as fertilizer, collecting wild herbs, planting seeds and attending to livestock. Field journals record these duties through a conventional ethnographic approach, but there is rarely any obvious connection between the stated ambitions of back-to-the-landers and these mundane chores. In interviews, back-to-the-land farmers typically preferred to discuss the ideals underpinning their self-proclaimed alternative lifestyles, including communal living, cooperative economic organization or libertarian self-reliance, and efforts to serve as exemplars of environmental sustainability or animal welfare. How these radical proclamations connected to the quotidian requirements of farm labour raised methodological questions. An embodied, multi-sensory approach became valuable for overcoming the disconnect between ethnographic observations and interviews.

Food and drink figured prominently in everyday interactions on farms, even if they played a more muted role in interviews. Acknowledging and utilising the sense of taste—as a physical process and social phenomenon—became key to Andrew's analysis. Taste presents a clear means for translating the physical process of transforming plants and animals into something more economically, socially and politically weighted. As others have argued, taste is essential for understanding food politics as both cognitive and visceral, and hence akin to how food is actually experienced by individuals and societies (Carolan, 2011; Longhurst et al., 2008; Stoller, 1989). On back-to-the-land farms in Italy, conscious and critical use of taste enabled a unique form of knowledge transfer. Taking seriously the importance of these bodily encounters became an explicit part of the research methodology, and so contributed to the empirics and analysis. Taste empowers many facets of back-to-the-land migration, where particular characteristics of food form the material basis of relationships, between farmers and consumers, and extending to market structures, formal associations, and regulatory agencies.

If we accept that food assists in structuring social relations, we must acknowledge the significance of the senses in this process.

The following dialogue was recorded while walking in a field with Romano, a back-to-the-land farmer in the Emilia-Romagna region of north-central Italy:

Romano: Some of those sage plants are for medicinal use, some for cooking. We grow seven varieties.

Andrew: I didn't know there were so many that were commercially grown.

Romano: Well, we want to grow as many as possible as long as there is a market for them. Some of them grow wild around here, but we've started taking cuttings and planting them here. You can tell the medicinal ones because they smell different... Here, have you tried this yet, this dark mint? Try it, it's like chocolate. We grow three kinds of mint but people love this one.

Andrew: Wow! I've never had that before. It *is* like a chocolate mint. What's it called in Italian?

Romano: I don't know, *menta cioccolato*? That's what we call it when we sell it. Sometimes I only know the Latin names and I have to take them to the market to find out what people call them.

In this exchange, complex dynamics of back-to-the-land migration are at work through multiple sensory techniques. City-bred farmer, Romano, draws visual attention to the sage plants, later implying that differences between varieties are not readily visible to the untrained eye. He remarks that smell can be used to distinguish between varieties, knowledge that allows him to capitalize on each variety's distinctive properties. Romano's ability to identify varieties in the wild demonstrates his adoption of local knowledge and entrepreneurial savvy, since the seven varieties, produced with minimal capital expenditure, have known commercial value. When he discusses the 'chocolate mint', its organoleptic qualities are presented as fact, with the implication that its novel colour, scent and flavour make it an attractive commodity.

Stating that he often knows only Latin names of plant species, and takes them to market to learn their vernacular names, Romano reveals his hitherto limited experience of market-orientated food production. His status as an 'outsider', or at least a newcomer to farming, is reinforced in the confession that his botanical knowledge is sometimes more textbook than vernacular. That he considers the 'menta cioccolato' worth cultivating and selling, however, supports Petrini's (2007) claim that flavour and knowledge are mutually constitutive: Romano identifies economic value in the plant because it brings pleasure.

This embodied engagement with food production informed analysis of 'the value that new farmers in Italy attach to different forms of knowledge, in particular the discrepancies between formal scientific and local knowledges' (Wilbur, 2014, p. 167). Considering the nexus between food politics and different forms of knowledge,

an understanding of farming that is explicitly related to common back-to-the-land values, such as responsible land stewardship, cooperative economic exchange or self-sufficiency, will develop a kind of know-how infused with those values, which may directly contradict (but in some cases complement) a formal scientific approach.

(Wilbur, 2014, p. 182).

Andrew was then able to use his sensory experience of plants while working at the market to which Romano referred. He helped Elisa, Romano's wife, sell produce from the farm at a '*mercato clandestino*', or secret market, organised by a coalition of independent farmers called *Genuino Clandestino*. This network advocates for a relaxation of regulations to which small-scale, independent farmers are subjected, rules that the campaign describes as having been designed by agribusiness to serve its own interests. The markets typically showcase organic food that is uncertified due to the cost burden of becoming an officially recognized organic producer (Wilbur, 2012). The flexibility and innovation that Romano demonstrates by

using his senses to identify which plants are most appropriate for the market stands in contrast to a bureaucratic and agribusiness-dominated system of regulation. The political statement manifest in the *mercato clandestino* attributes knowledge about quality to the site of the body rather than external institutions, and asks the market's participants to demonstrate this knowledge through tactile and taste-driven interaction.

The transformation, via the body, of plant material (*menta ciccolata*) into a product weighted with cultural and economic value, which is then channelled into a broader political project, reflects the intersection of two of our main foci in this paper. The role of the researcher stands as the third, and in this case represents a part of the story of how Andrew became engaged, through embodied experience, as a political actor in a *mercato clandestino* (with later participation extending beyond the market in Emilia-Romagna) and accountable, as a geographer, for recounting the politics of this organization in an academic context (see Wilbur, 2012).

Embodiment and politics are linked here through a direct chain of events. Tasting plant material led to cognitive knowledge, which was then used to develop products for a market that had a broader objective: to expose and challenge regulations that favour large agribusiness over small-scale organic farmers. This chain raises new questions for future consideration, such as: (i) How is taste related to authority, and what is the relationship between authority and economic power?; and (ii) To what extent is the harnessing of capitalist dynamics (i.e. market exchange) an effective tool for seeking social and economic justice?

Slaughtering chickens: animal welfare and farming standards

During the fieldwork in Italy, particular bodily performances, such as demonstrating sympathetic tastes in food and wine, permitted access to dimensions of farm life that might

otherwise be closed. This was especially clear in the physical demands on farm volunteers, some of which were reserved for the young, able-bodied and male. Working alongside Lorenzo, the eldest son on a farm in Piedmont, for example, Andrew performed several physically challenging jobs and—however subconsciously—mimicked the stoically masculine performance of his workmate in order to build rapport. Eventually this led to an invitation to participate in the slaughter of six chickens, a periodic ritual carried out by Lorenzo, whose projection of emotional detachment made him appear rather well disposed to the dispatching of livestock. The experience enabled critical reflection on the farm's claims of exceptional standards in animal welfare through a visceral, unique and highly memorable experience (Figure 1). It also generated several surprises, such as a latent tenderness in Lorenzo, and offered further opportunity to explore the boundaries of what constitutes 'research', and how that research informs empirical analysis.

Figure 1. From animal to meat: chickens slaughtered by the author and later prepared for cooking. Source: Andrew Wilbur.

The following field journal excerpt—and that with which we opened this paper—was written shortly after the slaughter. It reveals how the sensorial impact of the experience influenced ideas about animal welfare in farming:

Lorenzo brings me into the coop and casts about for the largest birds... There's a slight sense of panic as Lorenzo and I move around, and the chickens do appear to express fear, especially when Lorenzo shoots his arm out to grab a chosen bird by the legs...

I ask Lorenzo how he feels about this job. 'I hate it,' he answers quickly. 'But at least I know that the chickens had a good life. I don't like eating chicken that didn't come from this farm or someone we know.' The bird is hooked onto the fence by the string around its feet and Lorenzo shows me how to hold its wings. It will jerk and panic, he warns, and its wings need to be held tight to prevent it from spraying blood or injuring itself further in its last seconds alive...

We lift the wings up and I hold them together where the joint meets the shoulder. I instantly recognise this part of its anatomy—it feels exactly like a naked chicken wing you'd prepare to cook: a large joint, thin layer of skin and tender meat beneath. I don't know why but this is the strangest moment of the whole experience, my hands recognising a consumer product while my eyes see a living animal...

Its body swells and deflates, still searching for air, still employing its instinct to keep living, until it all stops forever. I'm holding it in my hands as its life force dissipates and this is a tangible sensation. I can feel that its nature has changed, that it has transformed from living being to carcass, from animal to meat. We do this four more times in less than 20 minutes. I am stunned by how quickly and quietly it has all come to pass.

This passage reveals the extent to which sensorial interaction with nonhuman species produces a distinct form of knowledge; more ambiguous, perhaps, than a regulatory approach to animal welfare, but also more intimate and nuanced. Many farmers who raised livestock took considerable pride in their treatment of animals and contrasted their methods of rearing and slaughter to the high-density production lines of industrial agribusiness. When asked

about their feelings toward raising animals for meat, most gave similar responses: however unpleasant, they would rather do it themselves and guarantee humane treatment than leave the responsibility to someone else. Standardisation regimes for organic products, food safety and animal welfare were regarded sceptically by the farmers, who tended to view the visceral knowledge of quality food production as untranslatable to government standards or corporate compliance. The physical proximity and tangible relationships these farmers experience with their livestock presents them with a vocabulary to discuss animal welfare as more than a vague ideal, and life and death as more than philosophical abstractions (see Carolan, 2011).

Given the back-to-the-landers' tendency to speak in idealistic terms about their farming practices, participating in animal slaughter offered an insight into how these ideals are performed through the bodies of both farmers and their livestock, allowing a more critical use of the term 'animal welfare' to emerge from the embodied research. Beyond academic analyses (see Wilbur, 2012), this understanding was practically applied to Andrew's work as a food activist. He coordinated a buying cooperative in Glasgow, Scotland that sourced animal products from local producers, served on the steering committee for Slow Food Glasgow and taught a workshop on consumer cooperatives at the 2012 Slow Food Terra Madre conference. Questions raised by his research experience informed his attitude toward animal welfare in each of these roles. Some of those questions included: (i) Should 'welfare' refer solely to external standards or incorporate an enterprise's own definition, based on tacit knowledge?; (ii) How is a researcher or activist equipped to evaluate and critique those standards, and is the current vocabulary for this subject limited by lack of visceral experience?; and (iii) What are the best methods of communicating visceral experience in the tangled relationship between individual actors and the regulation they face?

As with the previous section, comprehensively answering these questions is beyond the scope of this paper. Yet such questions present an entry point to thinking about how research analysis is informed by physical engagement with more-than-human actors, and how embodied methods can inform political action. They also hint at the limits of embodied methods to answer some questions that are overtly political, especially where actionable goals require group consensus. The researcher's embodied experience, conversely, leans toward the subjective and individual. On the one hand, Andrew is able to credit embodied fieldwork for providing a unique insight into an issue, animal welfare, that is often charged with both intensely personal and abstractly philosophical debate. On the other, he recognises the difficulties of translating that subjectivity into outcomes for improved animal welfare, in the face of corporate and government power, and the resources needed to fuel change. This account therefore complements existing discussions of how embodied methods can trace socio-material transformations of plants and animals into food, yet it also reveals how the entanglements of materiality, subjectivity and politics might impose limits on the objectives set by an activist-researcher.

Gathering nettles and warrigal greens: wild foods and species belonging

On the bank of the Shoalhaven River, in south-eastern Australia, sits the property Bundanon. Here, arts institution Bundanon Trust coordinates an annual arts-science collaboration—*Siteworks*—which seeks to engage a diverse group to share knowledge and ideas emerging from the site. *SiteWorks* is collaborative and interdisciplinary. It draws on the tradition of the creative laboratory, prominent in other disciplines and fields if not in geography, in which outcomes are the result of collective work. Through *SiteWorks*, visual and performance artists, physical and social scientists, local landowners and residents, land and resource institutions, and Bundanon Trust, come together at the Bundanon properties to make, communicate and learn about the site and related issues.

In *SiteWorks 2010* the research comprised: a two-week collaborative laboratory, of which Leah was a part; individual works developed by the Lab participants; and a public event, the Field Day. Members of the public were invited to experience and co-produce the works initiated over the preceding fortnight. Through her involvement in *SiteWorks*, Leah sought to understand what collaborative, embodied practice might reveal about the more-than-human world at the site, observing that: 'by gathering, digging, walking, rowing, lugging and listening ... Our bodies became 'instruments of research' shaping our engagement with the more-than-human world of the site' (Gibbs, 2014, p. 219).

One element of *SiteWorks 2010* was a performance installation entitled 'Weeds R Us', created by artist and cultural worker Diego Bonetto (Figure 2). 'Weeds R Us' invited Lab and Field Day participants to gather, prepare and eat foods growing uncultivated on the property. The plants gathered were of both 'native' and 'introduced' species. Plants were transformed into food through bodily processes of walking, selecting, collecting, sorting, cleaning, cutting and cooking. Together we prepared several dishes, including nettle and warrigal greens soup and mallow and lemon myrtle tea. Both soup and tea were prepared by coupling a native and introduced species, none of which are commonly eaten in Australia. Although nettles are a well-known food source and medicinal herb throughout Europe, in Australia they are generally considered a weed. Through this coupling, Diego 'presented weeds through the taste buds, allowing for a 'bypass' of interpretation of legitimacy'. In doing so he 'hoped to introduce a different reading of the landscape' (Bonetto, pers. comm.).

Figure 2. 'Weeds R Us'. Installation by Diego Bonetto at SiteWorks 2010, Bundanon, NSW, south-eastern Australia. Photographs by Heidrun Löhr. Used with permission of the artists.

'Weeds R Us' engaged directly with discourse and management of invasive species in Australia and elsewhere (e.g. Davis, 2009; Gibbs, Atchison & Macfarlane, 2015; IUCN, 2000). By bringing native and introduced plants together with a combined purpose, the work challenged the strong tendency in Australia to categorise plant (and animal) species on one or other side of a binary—native/invasive—and to judge and manage them accordingly. Embodied acts of pulling, cutting, sorting, cleaning, smelling, tasting and digesting created relations with plants that disrupted the dominant distinction between native and invasive. Through embodied encounters with food plants established categories were unsettled by introduction of new categories—including edible and tasty—that cut across received ideas. This disruption in turn stimulated discussion and thinking about species belonging. In this work embodied research method informed the politics of food, through interactions between human and plant bodies, discourse and thinking.

'Weeds R Us' also responded to the reality that gathering wild plant food is not common in Australia, as it is in other parts of the world. Gathering plant food, as opposed to gardening, agricultural and horticultural practices, is currently a marginal activity. It is arguably associated with three main groups: Indigenous communities in areas often remote from urban centers; a limited but growing number of restaurants and gourmet food providers marketing 'bushfoods' and 'wild foods'; and predominantly urban foraging groups motivated by environmental, political and cultural ideas about food. Yet there is much to eat in Australian landscapes, of both 'native' and 'introduced' species, and doing so can shift how we practice and understand human relations with plants, animals, broader environments, and food industries.

By selecting, touching, smelling and eating plants—native and introduced together—the artist and research participants interacted with plants in ways at odds with received understandings of people-plant relations. Embodied experiences demonstrated that all the plants presented were palatable. All could be enrolled in relations with human bodies that were productive and pleasurable. Experiencing these relations physically and viscerally prompted shifts in thinking. In particular, finding plants characterized as 'weeds' to be palatable challenged orderings of landscapes that suggest weeds do not belong. Such rethinking has salience as we grapple with the challenges of altered species ranges, new ecological assemblages, and unsettled food production systems, resulting from contemporary climate change and the conditions of the Anthropocene (Head et al., 2015; Hobbs, Higgs & Harris, 2009). New assemblages present opportunities for re-imagining and reconfiguring relationships between people, food, nature and nation (Gibbs et al., 2015; Head, 2012).

Embodied experiences of preparing and consuming nettle and warrigal greens soup and mallow and lemon myrtle tea have the potential to inform the politics of food and broader environmental debates. In a place where gathering wild food is a marginal practice, doing so can disrupt an expectation that the source of food is industrial agriculture. It demonstrates that food is accessible through other means, and that a far wider range of plants from a wider range of landscapes is edible, in turn prompting thinking about alternative foodways. In addition, this embodied research with food has broader implications for environments. It may shift a sensibility that assumes the native/invasive dichotomy is pre-determined and self-evident, and that origin is a fundamental basis of belonging (Gibbs, 2014). Rethinking what we deem belongs, and what does not, has relevance for human interactions with nature, including environmental management (Gibbs et al., 2015; Head, 2012); particularly pertinent in the context of increasingly controversial invasive species management regimes, critiqued for their efficacy, effects and ethics (e.g. see Atchison, Gibbs & Taylor, 2017; Gibbs et al., 2015). It may also have broader implications for the politics of belonging, at a time when debate about human migration is highly divisive and associated discrimination rife.

Conclusion

Across three vignettes our research has examined how embodied methods reveal the politics of food. First, in Italy, the senses of sight, smell and taste informed local knowledge of marketable products. In this instance, the market—the *mercato clandestino*—has a political agenda to relax regulation to which small-scale farmers are subjected. In this case the senses are used to determine economic value of herbs, based on sensory pleasure. This process attributes knowledge to the site of the body, rather than external regulatory institutions. Second, the visceral experience and physical labour involved in slaughtering chickens allowed critical reflection on claims of animal welfare and farming standards. Sensorial engagement with the chickens, acquisition of the technique for killing, and acting on the

knowledge that poor technique will lead to greater suffering, contribute to the welfare of animals. Close attention to these factors enabled the researcher to look beyond regulation to understand how animal welfare is enacted in farming practices that involve raising animals to eat. Third, in a context in which gathering wild foods is a marginal practice, embodied research with food, involving selecting, preparing and eating a variety of plants, disrupted the assumption that industrial agriculture is the source of food. This work with wild food plants contributes to broader environmental debates by unsettling the categories into which species have been placed; specifically, challenging the taken-for-granted native/invasive binary that directs much environmental management policy in Australia.

Numerous calls have been made for greater attention to embodied research; for 'more sustained reflection on the ways in which our own and others' bodily performances are written into projects' (Longhurst et al., 2008, p. 210; see also Crang, 2003). In this paper, we have brought more-than-human and food scholarship into conversation around this point. The field of food geographies has focused on the embodied practices of consumers as the object of analysis (Roe, 2006). More-than-human research has begun to explicitly examine the bodily interactions between humans and others in the research process, and the implications of embodied practices of the researcher. Here, we have focused on the body of the researcher to gain insight into the politics of food. To date, a good deal of scholarly attention has been paid to the senses and the visceral. Through our vignettes examining the processes of transforming plants and animals into food, we have found that the senses are important, but are not all. Gathering wild foods, for example, involves seeing, smelling, touching and tasting; but it also requires walking, pulling, cutting, sorting, washing, chopping and more. We have sought here to draw upon and further develop ideas about embodied methods by focusing on the body of the researcher, and arguing that doing so can reveal food politics. We also urge others to continue to extend thinking about embodied methods beyond the senses and the visceral.

Finally, this paper has sought to locate research practice and politics at the site of the body. We recognise that there is 'a long lineage of thinkers who have been steadfastly suspicious of things like taste, emotion, and affect' (Carolan, 2011, p. 21). Like Carolan, we appreciate that 'there are dangers in talking about taste, the ephemeral, and the visceral. But we face equal dangers when we don't'. We also agree with Longhurst et al. (2008, p. 209) that: 'geographers could benefit from paying more explicit attention to bodily performances when undertaking research. Recognising all our senses—tactile, olfactory, taste, auditory and visual...—has the potential to enrich understanding of body–space relationships'. Here, we have specifically aimed to understand what attention to our bodies, as researchers, can reveal about the politics of food, and what kinds of questions it can help us ask and answer. Food scholarship has paid close attention to the personal, to subjectivity, affect and emotion (Longhurst et al., 2008; Waitt, 2014). Roe (2006, p. 108) explicitly sought to extend what counts as politics to include the 'micro-level moralities and meanings that emerge through practice'. But this focus on 'micro-level' politics should not diminish attention to the potential of the body to contribute to broader public and policy debates. Waitt (2014, p. 407) for example, presented 'insights regarding how the visceral may help explain the absence of kangaroo from most domestic meal schedules and its presence on some restaurant menus'. In this way, he linked embodied experiences with food to public and policy discourse about the environmental benefits of eating kangaroo. Likewise, we argue that greater attention to the body, through embodied research method, can provide insights into a wide range of debates about food politics, including the place of local knowledge in food economies, governance and regulation of animal welfare, and environmental management of species deemed to belong or not in a place.

Acknowledgements

This research was supported by a Scottish Alliance for Geoscience, Environment and Society (SAGES) PhD scholarship awarded to Andrew, and in-kind support from Bundanon Trust to Leah. Thanks to the research participants in Italy and Australia; to Diego Bonetto for permission to include his work; to Heidrun Löhr for permission to use her photographs; and to Gordon Waitt for constructive feedback on a draft of the paper.

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