

Progress reports

Geographies of food: agro-food geographies – food, nature, farmers and agency

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I Introduction

This paper examines the remaining two sets of reconstructions in rural geography, as set out in my opening review (Winter, 2003), following the examination of 'farming and food' and 'food and politics' in Winter (2004a). The reconstructions to be discussed on this occasion are those of 'food and nature' and 'farmers and agency'. Both are vibrant areas with considerable possibilities for further work and, I would argue, for contributing not just to agro-food geographies but also to wider social science themes. The reconnection of food and nature takes us to the heart of current debates on hybridity and materialities and agro-food specialists should not lose sight of the wider theoretical debates around these issues (see, for example, Anderson and Tolia-Kelly, 2004; Kirsch and Mitchell, 2004). However, our primary starting point in this section is the seminal work in this area by Sarah Whatmore (2002), not least because agro-food issues are so central to her concerns. Increasingly, we can expect some of the more innovative agro-food research to be influenced by her work and some of the early examples of this are referred to here. Reconnecting farmers and agency, of course,

takes us to some of the traditional central questions of social science with regard to human action and structuration.

Before entering further, as promised, into these particular territories of academic engagement, here is a brief reflection on the three reviews as a whole. Having structured the three papers in a particular way, I am aware now that, while a legitimate set of connections has been explored, there has been an inevitable exclusion of certain other areas. Moreover, explicit treatment of certain key thematic connections has perhaps been neglected. These two potential errors are not unconnected. One example will serve. By failing adequately to explore the contested nature of economic activity – clearly a tall order in a review of agro-food research – I have neglected to properly connect agro-food studies to the lively, and highly relevant, contemporary debates in economic geography (Castree, 2004; Marchionni, 2004). And, I suspect, by implicitly endorsing a particular notion of economic activity, with alternative food networks as merely the flipside of global provisioning, I have neglected to address some of the more intriguing and radical alternatives such as the

notion of decommodification (Henderson, 2004). So the challenge is presented to whoever runs with the baton of reviewing agro-food research in the future.

II Food and nature

Marsden's appeal for detailed empirical work at the micro level to assist in the abandonment of aggregated conceptions of 'nature' and 'society', emphasizing instead the construction of variable hybrid categories, was noted in the opening review (Marsden, 2000; Winter, 2003). The work on hybridity by Whatmore (2002), in particular, was seen as offering some useful conceptual and empirical lines of enquiry for agro-food research. One of the main points of this section of the review is to examine the extent to which these possibilities are being taken up in the social sciences, whether or not as an explicit response to Marsden and to Whatmore. It is perhaps too early to expect Whatmore's book directly to have influenced greatly either the empirical or conceptual context of agro-food research. Her critique of agri-food studies takes both cultural studies and political economy to task for reiterating the compartmentalization of production and consumption. Even those political-economy approaches which take food beyond production into the spheres of processing and retail – using concepts such as 'food chains' and 'systems of provision' to link the two spheres – 'share a tendency to configure the geographies of food as a unilateral translation of socio-material value from field to plate, in which food is little more than the terminus of the crop' (p. 123). Cultural approaches, while portraying food consumption as socially and culturally complex, provide a 'focus on shopping, cooking and eating identities and the bodily register of these cultural practices (which) rarely strays much beyond the supermarket aisles, restaurant tables and take-away menus' (p. 123). Thus, for Whatmore, 'everything that matters in these bi-partite accounts of the geographies of food seems to boil down to profitability of subjectivity.

The *matter* of agri-food becomes an absent presence, like the hyphen that holds the moments of producing and consuming in place forgetting ... that the traffic between them is a traffic in and through "things" (pp. 123–24). Whatmore's own attempt to fill this absence involves a detailed exploration of genetic modification and the soyabean: 'instead of the blank figure that haunts the spatial imaginaries of commodity chains and consumer cultures in agri-food studies, the soyabean emerges as a lively presence that agglomerates very diverse acts and complicates the distribution of powers and knowledges in the precarious business of growing and eating' (p. 142). The metaphor of the rhizome, originally developed by Deleuze and Guattari (1976; see also Murdoch, 1998), is more appropriate than the chain and has become a powerful metaphor in the explanation of heterogeneous networks within poststructuralism which takes account of both human agency and non-human 'actors' (Hess, 2004).

Recent agro-food research continues to be influenced by these theoretical developments, particularly with regard to the conceptualization of nature and the material and Goodman's call for a problematization of society/nature dualism (Goodman, 1999). For example, Donaldson and Wood (2004) consider surveillance, in order to enforce biosecurity measures to control the spread of foot and mouth disease, as 'a mode of ordering that enmeshes humans and nonhumans, bringing about the translation of categorical world-views into materialities' (p. 387). In another powerful example, Lockie (2004) subjects new social movement theory to empirical scrutiny afforded through a detailed examination of the Australian landcare movement in the light of a non-dualistic perspective that admits nonhuman actors.

Whether or not the language of non-dualism or hybridity, or indeed the metaphor of the rhizome, is used, the empirical reconstructions between nature and food are clearly

evident in the food marketplace. Here reconnection is to do with making the links between particular foods and particular natures, a reterritorialization or respatialization of food production which begins to reverse the aspatialities which are, or were, an intrinsic part of a globalized food order. It is to do with market segmentation and with consumer reaction. It is also to do with a growing realization that the properties of food are 'natural' properties and that heterogeneity of edaphic conditions gives rise to varied natures represented in varied foods. Given the interplay of the physical and social in the origins and production of foods and, indeed, implicit in the notion of agri-culture, it might have been expected that physical and human geographers, working together, would have been at the forefront of these developments. But, in fact, such developments are embryonic at best, although it is to be hoped that the UK's Joint Research Council initiative in interdisciplinary research on Rural Economy and Land Use (www.relu.ac.uk), will facilitate some such partnerships.

Many of the empirical leads for understanding the precise linkages between food and nature come not from geography – physical or human – but from a rejuvenated agricultural systems approach. At the risk of gross simplification, farm systems research 20 years ago was narrowly focused on the farm as an economic system or, at best, an agro-economic system. Farm business economists and agricultural scientists modelled farms with relatively little attention either to externalities or to the life of commodities beyond the farm gate. Consequently there was there was little sharing of thinking between those in farming systems research and the growing criticism of agriculture's environmental and food record. If the proponents of farming systems were narrow and constrained, it is fair to say that agriculture's new critics were rather unsophisticated, strong on cataloguing the destructiveness of modern agriculture – the works of the period abound with the data of loss – but weak on

analysing the spatial differentiation of agricultural change. However, in the 1990s a powerful new, but rather more subtle, analysis of change emerged where insights from farming systems research and ecological analysis fused. Lamentation over agricultural impacts on particular habitats was replaced by a careful delineation of the relationship between farming systems and a mosaic of habitats and landscapes.

The identification of high natural value (HNV) farming systems is evident in a wide range of studies emerging in the 1990s (Bignal and McCracken, 1996). Research on farmland birds in particular is well developed in the UK. This is largely a result of twin national obsessions in the UK for both gazing at birds and shooting them! Thus much research on birds is conducted and/or funded either through the voluntary bird conservation groups, mainly the Royal Society for the Protection of Birds (RSPB) and the British Trust for Ornithology (BTO), or the Game Conservancy Trust with its focus on game shooting. Much of the work is concerned with agricultural habitats (Parish *et al.*, 1994). Thus we have research on the precise agricultural conditions associated with, *inter alia*, populations of blackbirds (Hatchwell *et al.*, 1996), corn bunting (Donald, 1997), grouse (Hudson, 1992), lapwing (Hudson *et al.*, 1994), partridges (Potts, 1997), skylarks (Wilson *et al.*, 1997) and song thrush (Peach *et al.*, 2004). The difficulties of analysing the precise relations between agricultural conditions and the status of bird populations has been well demonstrated by Chamberlain *et al.* (2000) in work examining time-series data for bird populations against a whole series of agricultural variables. The difficulty of using variables established for quite different purposes, the measurement of farm physical or financial output for example, in this way was one of the main findings of this work. Social scientists have joined the fray with attempts to demonstrate both positive and negative interactions between agricultural policy and environmental policy,

leading to a rediscovery of place-specific policy effect, for example in work on local environmental management (Evans *et al.*, 2003).

While this work undoubtedly serves to reconnect agriculture and nature, revealing a subtle set of connections between agricultural practices and biodiversity, the implications for the food chain (or rhizome) are, so far, less well developed. But, if links between provenance and food quality are to be further analysed, an extension of this new farming system research into exploring the characteristics of food is now an urgent task. Until now, research in this area has largely been around the issues of branding and identity (Morris and Buller, 2003). This rediscovery of agriculture's contributory role to landscape and biodiversity and the reterritorialization of food has contributed to the rapidly emerging agenda of regional competitiveness (although see Hess, 2004, for warnings against over-territorialized notions of embeddedness and regionalism). In the southwest of England, for example, the natural environment, primarily a product of agricultural practice, is constructed by the Regional Development Agency and other regional stakeholders as one of the key drivers of the region's economy and features strongly in the Regional Economic Strategy. A growing sense of place pervades agricultural and food policy discourses.

Much of the work relevant to reterritorialization has been conducted in the light of research on public good policy and multifunctionality (Durand and van Huylbroeck, 2003) or regional competitiveness (Gibbs, 2000; Morris and Buller, 2003; Kitson *et al.*, 2004). But the more theoretically novel approaches, especially with regard to the issue of reconnecting nature and food, have perhaps come from those concerned with the valorization of nature and/or specific spaces through the market (Marsden *et al.*, 1999; Parrott *et al.*, 2002; Kirwan, 2004). Buller and Morris (2004) provide an important recent contribution to this growing area of work in which they seek to blur the traditional

boundaries between market and policy approaches to agriculture by exploring how the market is increasingly being employed 'to reconcile agricultural production and environmental protection as new forms of commodification permit a shift in the values attributed to the various "products" of agricultural enterprise' (p. 1067). Of particular value in this work is the attempt to relate market-orientated initiatives in the agro-food sector back to some other key debates in agro-food studies in a manner not attempted by earlier approaches to the 'quality turn'. One is the refusal to subscribe to an 'either/or' approach to market and policy approaches, insisting with Bourdieu that 'the economic field is inhabited by the state which contributes, at each and every moment, to its existence and its durability' (Bourdieu, 2000: 25). Another is their consideration of the way in which the marketing of products from sustainable food production systems may help to 'internalize' some of the negative externalities that lie at the heart of the agri-environmental problem (Pretty *et al.*, 2001), thereby leading to a reassessment of Ricardian rent theory, based on productive capacity and distance, as proposed by Mollard *et al.* (2001) in their notion of 'territorial quality rent'. Presumably this challenge to rent theory would extend equally to Marxist variants. A revival of interest in rent theory in contemporary agro-food studies is also apparent in the work on organic food standards by Guthman (2004a). However, whereas Buller and Morris would appear to see the new markets and the internalization of externalities in broadly positive terms, Guthman (2004b) is far less sanguine in the context of agri-business penetration of the organic sector in California and the 'conventionalization' that appears to be taking place.

Linking this agricultural work onwards into the food chain requires considerably more work than has been undertaken up to now. We are aware from consumer research that the provenance of food products may well be a concern to consumers and for a wide

range of reasons, but the nature of the links between the social meaning attached to provenance and the biological and physical characteristics of foodstuff remains a matter for further research. Of course, the 'quality' of food products has long been researched in commercial contexts using a combination of 'hard' scientific methods to do with inherent physical characteristics and 'soft' methods to do with tasting, in which members of the general public may or may not be involved. Newfound interest in geographies of the body and of emotions (Matthee, 2004; Wood and Smith, 2004) would suggest that the social and cultural context of taste in market research and development is worthy of research attuned to the possibilities offered by the reconnection of food and nature through reterritorialization. There is, of course, a rich sociological tradition of work on taste (Warde, 1997), an area where the 'spatial turn' appears as yet to have made relatively little impact. However, before leaving this theme, it is important to remind ourselves of the continuing dominance of global systems of food provision and the role of agro-food conglomerates (Millstone and Lang, 2003) and the modest contribution of alternative food networks: 'for the moment, these innovative modes of provisioning represent socially exclusive niches rather than the future of European rural economy and society' (Goodman, 2004: 13; see also response by van der Ploeg and Renting, 2004).

Finally, under the theme of reconnecting food and nature, two issues, referred to in my earlier reviews, continue to prompt attention. Indeed, both are becoming vibrant subthemes within agro-food studies, in part because of their public topicality and in part because of the possibilities they offer for crosscutting explanations and explorations of the nature/society theme. First, notwithstanding the fact that the policy debate seems to have reached something of an impasse, the genetic modification of crops and animals continues to spawn its own academic reconnections, for example between theology and (social)

science (Deane-Drummond *et al.*, 2003) and between policy and ecology (Gray, 2004). Secondly, the general geographical interest in animals has given rise to some important further studies – of how animals are treated in the nature/society debate (Tovey, 2003) and of farm animals in the context of farm animal welfare (Buller and Morris, 2003).

III Farmers and agency

Am I forcing the metaphor of reconnection too far when I turn to this final example? In one sense the very notion of a 'farmer', as an individual actor, an agri-culturalist, implies agency, implies spatially and socially differentiated action and activity. Indeed, the first group of academics to focus any sustained attention on farmers as a group, the farm business economists of the 1940s and 1950s, did so in large part because they perceived highly differentiated behaviour, measured in terms of business performance, within the farming community. In the context of food shortages and food security issues the farm business economists confronted farmers who stubbornly refused to comply with the economic categories and norms that might have been expected. Where the farm business economists left off, the rural sociologists picked up in the 1970s and 1980s. In my opening review (Winter, 2003) I implied that the political-economy approach of the 1980s may perhaps have served to neglect the agency of farmers, with its focus on food orders and the Common Agricultural Policy (CAP). But even this is an exaggeration, for political economy gave rise to some of the largest ever farmer-based surveys as academics struggled to come to terms with relating macro political and economic forces with decisions 'in the field' that impacted on land use and rural development (Mackinnon *et al.*, 1991).

However, the opening review identified three stimuli to the re-emphasis of farmers' agency in agro-food studies: the reterritorialization of policy, particularly through agri-environment schemes, already referred to in the previous section; the sustainability debate

with its emphasis on the social; and the cultural turn in human geography. But, of course, these three stimuli are not commensurate and there is little to be gained in using particularly the first and the third as the organizing principles for this section of the review. Instead I propose to provide a broad-brush review of recent work on farmers.

The knowledge requirements and possibilities of sustainable agriculture continue to provide the main way in which the social leg of sustainability is explored. For example, Nerbonne and Lentz (2003) examine a case from Minnesota of how farmer participation in a group of scientists served both to empower farmers as their knowledge was shared with researchers and to bolster sustainability. A broader defining of social objectives within sustainable farming policies and discourses remains harder to find and the suggestions given by Bowler (2002), as referred to in my first review – that the *social* dimension of sustainable development in agriculture should cover issues such as the optimum level of farm population, quality of farm life, and the distribution of material benefits – remain largely unexplored (although see Alston, 2004, for some insights). I have attempted elsewhere to provide some account of the political and ideological reasons for this neglect in an English context (Winter, 2004b). In New Zealand, Fairweather and Campbell (2003) use the competing prospects of genetic modification and organic farming to unpack environmental beliefs and practices and their relevance to sustainability. A welcome focus on gender in the context of sustainability is provided by Traugher (2004) who shows that women in the west are up to three times more likely to operate sustainable farming systems than productivist ones. She argues that the sustainable agriculture provides for spaces that promote and are compatible with women's identity as farmers.

Studies of agri-environment schemes continue to stimulate attention to the differential responses of farmers to these particular policy signals and important work in this area

is still being published (e.g., Carey *et al.*, 2003; Morris, 2004), but it is fair to say that they are tailing off as the results of EU and central government funded monitoring and evaluation projects of the 1990s have largely been disseminated. Moreover, reterritorialization and the rediscovery of high natural value farming systems focuses attention away from farmers' actions with regard to special environmental sites and features to their activities in a broader sustainable farming context. Thus it is that a number of papers are now being published which consider the social characteristics of agriculture in the context of the sustainability debate and/or the impact of deregulation on farming. Differential responses to policy and market changes and opportunities have prompted renewed attention to the belief systems of farmers, factors that influence their behaviour and ways of conceptualizing farmers.

This trend has been reinforced by a welcome reassessment of farmers' agency in the context of the productivism/post-productivism debate. Stimulated by the various critiques of postproductivism – broadly sympathetic in the case of Wilson (2001) and broadly negative in the case of Evans *et al.* (2002) – Burton (2004) sets out to define productivist behaviour, enlisting the notion of 'good farming' in so doing (see also Silvasti, 2003). His is a valuable study of how farmers see their farming and of the symbolic importance of productivist activity in farmers' self-identity. It fits well into a renewed focus on family farming and agricultural restructuring (Lobley and Potter, 2004; Johnsen, 2004) which promises to revitalize an area which spawned a huge volume of literature in the 1980s but has been somewhat neglected in recent times.

In order to draw together these various strands of farmer studies, the final part of this section examines two works which seek to synthesize developments and offer new directions in the farmer/agency debate. Burton (2004) seeks to reconceptualize (and revive) the behavioural approach in

agricultural studies, whereas Morris and Evans (2004) examine the cultural turn and its implications and possibilities for agricultural research. Given the agenda-setting aims of both papers, it is hard to avoid making some comparisons between the two. As an exercise in the intellectual history of attempts to analyse farmers' agency, Burton's account is far from convincing. He traces the origins of the 'behavioural approach', defined, following Morris and Potter (1995: 55), as focusing 'on the motives, values and attitudes that determine the decision-making process of individual farmers', from the 1950s, and cites Gasson's classification of farmers' goals and values in 1973 as a seminal statement of behaviourism. So far so good. But in a couple of sentences a new 'sociological perspective' is referred to (with just one citation to Buttel, 2001). This is neither defined nor elaborated on but conflated with the cultural turn: 'as part of this move towards a more sociological perspective on agricultural behaviour, the emergence of the "cultural turn" in the late 1980s and 1990s saw cultural approaches dominating and the behavioural approach being assigned an increasingly marginalized position in rural studies' (Burton, 2004: 360).

In truth, the new rural sociology of the 1970s, 80s and 90s, which did indeed marginalize behaviourism, was influenced much more by the Weberian rural sociology exemplified by Newby (e.g., Newby *et al.*, 1978), the Marxian political economy of Marsden *et al.* (1986), and latterly, perhaps, actor-network theory. In contrast to Burton and, much more accurately, Morris and Evans claim that the 'application of insights from structural political economy served to enrich theoretically both the agricultural and social strands of rural geography from the late 1980s ... it is only within non-agricultural studies that insights from the cultural turn have been applied with any vigour'. Thus, whereas Burton claims that behaviourism has been knocked off course by the cultural turn, Morris and Evans set out to explain the lack of influence of the cultural turn in

agrarian studies and put up a strong case for 'enculturating the agri-food economy'. While Burton's reading of the currents of agro-food studies is curious, his plea for more attention to behaviourism, especially as refreshed by new methodological developments in social psychology, is an important one and should not be ignored. He offers some challenges to the rural academic community to embrace methodological multidisciplinary. Morris and Evans do likewise and their plea for greater complementarity between cultural and other more established perspectives means that 'agricultural geographers will need to engage with more innovative research methods than those based on questionnaires' (p. 107).

IV Conclusions

As these three reviews have shown, agro-food studies remain a vibrant and exciting area of geographical inquiry. The methodological and conceptual progress that has been made around the four reconnections are important not just for academic inquiry but as areas of public interest and policy relevance too. This paper has been written at the point of implementation of the latest round of CAP reform. The Single Farm Payment, introduced in January 2005, signals the final break between the direct linking of subsidy and production on EU farms, though that is a bold statement given the element of national discretion that the reform has introduced. The responses of farmers to these changes will, no doubt, be the subject of much research in the coming years, as will the possibilities for alternative food networks in the context of regionalization and multifunctionality.

References

- Alston, M.** 2004: Who is down on the farm? Social aspects of Australian agriculture in the 21st century, *Agriculture and Human Values* 21, 37–46.
- Anderson, B.** and **Tolia-Kelly, D.** 2004: Matter(s) in social and cultural geography. *Geoforum* 35, 669–74.
- Signal, E.M.** and **McCracken, D.I.** 1996: Low-intensity farming systems in the conservation of the countryside. *Journal of Applied Ecology* 33, 413–24.
- Bourdieu, P.** 2000: *Les structures sociales de l'économie*. Paris: Éditions du Seuil.

- Bowler, I.** 2002: Developing sustainable agriculture. *Geography* 87, 205–12.
- Buller, H.** and **Morris, C.** 2003: Farm animal welfare: a new repertoire of nature–society relations or modernism re-embedded? *Sociologia Ruralis* 43, 216–37.
- 2004: Growing goods: the market, the state, and sustainable food production: *Environment and Planning A* 36, 1065–84.
- Burton, R.** 2004: Reconceptualising the ‘behavioural approach’ in agricultural studies: a socio-psychological perspective. *Journal of Rural Studies* 20, 359–71.
- Buttel, F.H.** 2001: Some reflections on late twentieth century agrarian political economy. *Sociologia Ruralis* 41, 165–81.
- Carey, P.D., Short, C., Morris, C., Hunt, J., Priscott, A., Davis, M., Finch, C., Curry, N., Little, W., Winter, M., Parkin, A.** and **Firbank, L.G.** 2003: The multi-disciplinary evaluation of a national agri-environment scheme, *Journal of Environmental Management* 69, 71–91.
- Castree, N.** 2004: Economy and culture are dead! Long live economy and culture! *Progress in Human Geography* 28, 204–26.
- Chamberlain, D.E., Fuller, R.J., Bunce, R.G.H., Duckworth, J.C.** and **Shrubb, M.** 2000: Changes in the abundance of farmland birds in relation to the timing of agricultural intensification in England and Wales. *Journal of Applied Ecology* 37, 771–88.
- Deane-Drummond, C., Szersynski, B.** and **Grove-White, R.** 2003: *Re-ordering nature: theology, society and the new genetics*. London: T&T Clark.
- Deleuze, G.** and **Guattari, F.** 1976: *Rhizome*. Paris: Minuit.
- Donald, P.F.** 1997: The corn bunting *Miliaria calandra* in Britain: a review of current status, patterns of decline and possible causes. In Donald, P.F. and Aebischer, N.J., editors, *The ecology and conservation of corn buntings Miliaria calandra*, Peterborough: UK Nature Conservation no. 13, JNCC, 11–26.
- Donaldson, A.B.** and **Wood, D.** 2004: Surveiling strange materialities: categorisation in the evolving geographies of FMD biosecurity. *Environment and Planning D: Society and Space* 22, 373–91.
- Durand, G.** and **van Huylbroeck, G.** 2003: Multifunctionality and rural development: a general framework. In van Huylbroeck, G. and Durand, G., editors, *Multifunctional agriculture: a new paradigm for european agriculture and rural development*, Aldershot: Gower, 1–16.
- Evans, N., Gaskell, P.** and **Winter, M.** 2003: Re-assessing agrarian policy and practice in local environmental management: the case of beef cattle. *Land Use Policy* 20, 231–42.
- Evans, N., Morris, C.** and **Winter, M.** 2002: Conceptualizing agriculture: a critique of post-productivism as the new orthodoxy, *Progress in Human Geography* 26, 313–32.
- Fairweather, J.** and **Campbell, H.R.** 2003: Environmental beliefs and farm practices of New Zealand farmers: contrasting pathways to sustainability. *Agriculture and Human Values* 20, 287–300.
- Gasson, R.** 1973: Goals and values of farmers. *Journal of Agricultural Economics* 24, 521–37.
- Gibbs, D.** 2000: Ecological modernisation, regional economic development and regional development agencies. *Geoforum* 31, 9–19.
- Goodman, D.** 1999: Agro-food studies in the ‘age of ecology’: nature, corporeality, bio-politics. *Sociologia Ruralis* 39, 17–38.
- 2004: Rural Europe redux? Reflections on alternative agro-food networks and paradigm change. *Sociologia Ruralis* 44, 3–16.
- Gray, A.J.** 2004: Ecology and government policies: the GM crop debate. *Journal of Applied Ecology* 41, 1–10.
- Guthman, J.** 2004a: Back to the land: the paradox of organic food standards. *Environment and Planning A* 36, 511–28.
- 2004b: The trouble with ‘organic lite’ in California: a rejoinder to the ‘conventionalisation’ debate, *Sociologia Ruralis* 44, 301–16.
- Hatchwell, B.J., Chamberlain, D.E.** and **Perrin, C.M.** 1996: The demography of blackbirds *Turdus merula* in rural habitats: is farmland and sub-optimal habitat? *Journal of Applied Ecology* 33, 1114–24.
- Henderson, G.** 2004: ‘Free’ food, the local production of worth, and the circuit of decommodification: a value theory of the surplus. *Environment and Planning D: Society and Space* 22, 485–512.
- Hess, M.** 2004: ‘Spatial’ relationships? Towards a reconceptualization of embeddedness, *Progress in Human Geography* 18, 165–86.
- Hudson, P.J.** 1992: *Grouse in space and time*. Fordingbridge: Game Conservancy Trust.
- Hudson, R., Tucker, G.M.** and **Fuller, R.J.** 1994: Lapwing *Vanellus vanellus* populations in relation to agricultural changes: a review. In Tucker, G.M., Davies, S.M. and Fuller, R.J., editors, *The ecology and conservation of lapwings Vanellus vanellus*, Peterborough: UK Nature Conservation no. 9, JNCC, 1–33.
- Johnsen, S.** 2004: The redefinition of family farming: agricultural restructuring and farm adjustment in Waihemo, New Zealand. *Journal of Rural Studies* 20, 419–32.
- Kirsch, S.** and **Mitchell, D.** 2004: The nature of things: dead labor, nonhuman actors, and the persistence of Marxism: *Antipode* 36, 687–705.
- Kirwan, J.** 2004: Alternative strategies in the UK agro-food system: interrogating the alterity of farmers’ markets: *Sociologia Ruralis* 44, 395–415.
- Kitson, M., Martin, R.** and **Tyler, P.** 2004: Regional competitiveness: an elusive yet key concept. *Regional Studies* 38, 991–99.
- Lobley, M.** and **Potter, C.** 2004: Agricultural change and restructuring: recent evidence from a survey of agricultural households in England. *Journal of Rural Studies* 20, 499–510.

- Lockie, S.** 2004: Collective agency, non-human causality and environmental social movements: a case study of the Australian 'landcare movement'. *Journal of Sociology* 40, 41–58.
- Mackinnon, N., Bryden, J.M., Bell, C., Fuller, A.M. and Spearman, M.** 1991: Pluriactivity, structural change and farm household vulnerability in western Europe. *Sociologia Ruralis* 31, 58–71.
- Marchionni, C.** 2004: Geographical economics versus economic geography: towards a clarification of the dispute. *Environment and Planning A* 36, 1737–53.
- Marsden, T.** 2000: Food matters and the matter of food. *Sociologia Ruralis* 40, 20–29.
- Marsden, T., Munton, R., Whatmore, S. and Little, J.** 1986: Towards a political economy of capitalist agriculture: a British perspective. *International Journal of Urban and Regional Research* 11, 498–521.
- Marsden, T., Murdoch, J. and Morgan, K.** 1999: Sustainable agriculture, food supply chains and regional development. *International Planning Studies* 4, 295–301.
- Matthee, D.D.** 2004: Towards an emotional geography of eating practices: an exploration of the food rituals of women of colour working on farms in the Western Cape. *Gender, Place and Culture* 11, 437–43.
- Millstone, E. and Lang, T.** 2003: *The atlas of food: who eats what, where and why*. London: Earthscan.
- Mollard, A., Pecqueur, B. and Lacroix, A.** 2001: A meeting between quality and territorialism: the rent theory reviewed in the context of territorial development, with reference to French examples. *International Journal of Sustainable Development* 4, 368–91.
- Morris, C.** 2004: Networks of agri-environmental policy implementation: a case study of England's Countryside Stewardship Scheme. *Land Use Policy* 21, 177–91.
- Morris, C. and Buller, H.** 2003: The local food sector: a preliminary assessment of its impact in Gloucestershire. *British Food Journal* 105, 559–66.
- Morris, C. and Evans, N.** 2004: Agricultural turns, geographical turns: retrospect and prospect. *Journal of Rural Studies* 20, 95–111.
- Morris, C. and Potter, C.** 1995: Recruiting the new conservationists: farmers' adoption of agri-environmental schemes in the UK. *Journal of Rural Studies* 11, 51–63.
- Murdoch, J.** 1998: The spaces of actor-network-theory. *Geoforum* 29, 357–74.
- Nerbonne, J.F. and Lentz, R.** 2003: Rooted in grass: challenging patterns of knowledge exchange as a means of fostering social change in a southeast Minnesota farm community. *Agriculture and Human Values* 20, 65–78.
- Newby, H., Bell, C., Rose, D. and Saunders, P.** 1978: *Property, paternalism and power*. London: Hutchinson.
- Parish, T., Lakhani, K.H. and Sparks, T.H.** 1994: Modelling the relationship between bird population variables and hedgerow and other field margin attributes. 1. Species richness of winter, summer and breeding birds. *Journal of Applied Ecology* 31, 764–75.
- Parrott, N., Wilson, N. and Murdoch, J.** 2002: Spatializing quality: regional protection and the alternative geography of food. *European Urban and Regional Studies* 9, 241–61.
- Peach, W.J., Denny, M., Cotton, P.A., Hill, I.F., Gruar, D., Barritt, D., Impey, A., and Mallord, J.** 2004: Habitat selection by song thrushes in stable and declining farmland populations. *Journal of Applied Ecology* 41, 275–93.
- Potts, D.** 1997: Cereal farming, pesticides and grey partridges. In Pain, D.J. and Pienkowski, M.W., editors, *Farming and birds in Europe*, London: Academic Press, 150–77.
- Pretty, J., Brett, C., Gee, D., Hine, R.C., Mason, C., Morison, J., Rayment, M., van der Bijl, G. and Dobbs, T.L.** 2001: Policy challenges and priorities for internalizing the externalities of modern agriculture. *Journal of Environmental Planning and Management* 44, 263–83.
- Silvasti, T.** 2003: The cultural model of 'the good farmer' and the environmental question in Finland. *Agriculture and Human Values* 20, 143–50.
- Tovey, H.** 2003: Theorising nature and society in sociology: the invisibility of animals. *Sociologia Ruralis* 43, 196–215.
- Traugher, A.** 2004: 'Because they can do the work': women farmers in sustainable agriculture in Pennsylvania. *Gender, Place and Culture* 11, 289–307.
- van der Ploeg, J.D. and Renting, H.** 2004: Behind the 'redux': a rejoinder to David Goodman. *Sociologia Ruralis* 44, 233–42.
- Warde, A.** 1997: *Consumption, food and taste. Culinary antinomies and commodity culture*. London: Sage.
- Whatmore, S.** 2002: *Hybrid geographies: natures cultures space*. London: Sage.
- Wilson, G.A.** 2001: From productivism to post-productivism ... and back again? Exploring the (un)changed natural and mental landscapes of European agriculture. *Transactions of the Institute of British Geographers* NS 26, 77–102.
- Wilson, J.D., Evans, J., Browne, S.J. and King, J.R.** 1997: Territory distribution and breeding success of skylarks *Alauda arvensis* on organic and intensive farmland in southern England. *Journal of Applied Ecology* 34, 1462–78.
- Winter, M.** 2003: Geographies of food: agro-food geographies – making reconnections. *Progress in Human Geography* 27, 505–13.
- 2004a: Geographies of food: agro-food geographies – farming, food and politics. *Progress in Human Geography* 28, 664–70.
- 2004b: Who will mow the grass? Bringing farmers into the sustainability framework. *Journal of the Royal Agricultural Society of England* 165, 113–23.
- Wood, N. and Smith, S.J.** 2004: Instrumental routes to emotional geographies. *Social and Cultural Geography* 5, 533–48.

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