



## Alternative Food Networks and the Test-tube Burger

MOYA KNEAFSEY

I was pondering on how to begin my review of this richly textured and thought-provoking book, when the world's first 'test-tube burger' was cooked and eaten in London. The story was rather helpful, because it provided an excellent 'hook' to hang my thoughts upon, at a moment when I was struggling with where to begin. The genesis of the 'Frankenburger' represents the complete antithesis of everything that this book argues for, and also illustrates some of the complex trends that it so carefully articulates. Invented by a Professor of Vascular Physiology, produced in a laboratory with a team of around six scientists and funded by the co-founder of Google to the tune of GBP 250 000, the burger is the result of processes that are far from the open, participatory, and inclusive practices of making sustainable food systems that are advocated in this book.

I want to use the story of the burger as a spring board from which to engage with just three of the key themes presented in *Alternative Food Networks*. The first is the issue of food security. I start with this not because it is the most central theme in Goodman et al.'s book – although it is an undercurrent running throughout – but because the burger has been presented primarily as a solution to the problem of feeding the world, and because the book provides a useful critique of current policy discourses and research agendas on food security. As Chapter 6 demonstrates, these tend to 'frame' food security as a 'structural' problem of declining global resources in the face of major threats from climate change and population growth. Through a close examination of recent UK policy documents on food security and sustainability, the chapter highlights the tensions between supporters of re-localized food provisioning and policymakers and industry stakeholders who believe solutions will be found within the existing paradigm of industrialized farming systems, coupled with international trade and highly efficient supply chains. The discussion reveals 'how deeply the conventional food system is entrenched in political economic and cultural terms, and the policy distance that must be navigated before sustainable re-localized food networks and food justice come within reach as accepted goals in fairer, more open societies' (p. 107). The analysis illustrates how, in a number of important UK policy documents, the basic assumption is that food security will be achieved by ensuring ever increasing resource use efficiency, rather than any 'root and branch transition from one organizational template to a radically different model' (p. 110). Within this context, localized food networks are regarded as an 'interesting' and 'innovative' but essentially fringe activity; useful for 'reconnecting' people with their food, and promoting social benefits, but in no way capable of making any significant contribution to food security. Yet the authors argue that despite being generally dismissed in policies, initiatives such as Making Local Food Work and the Transition

Moya Kneafsey is Reader in Human Geography at the Department of Geography, Environment and Disaster Management, Coventry University, Priory Street, Coventry, CV1 5FB, UK; email: <m.kneafsey@coventry.ac.uk>.

Town Network are 'creative responses by social movements and grassroots groups in the UK to the same impending constraints on hydrocarbons and ecosystem services [and] are galvanizing public support and encouraging collective action at a time when public disenchantment with conventional party politics and policy channels is widespread' (p. 119). They argue that although these projects are often small scale and dispersed, they yield valuable 'demonstration' or 'multiplier' effects and potentially open up new dimensions in the contemporary politics of food. This perspective on alternative food networks is maintained throughout the book, which, as a whole, crafts an argument that these initiatives represent a hopeful new 'politics of practice' situated in the places and times that people find themselves inhabiting.

In relation to ensuring food security, Goodman et al. note that beyond general assertions that smarter, more efficient technical and business practices are needed to keep enhancing the competitiveness and resilience of the agriculture and food sectors, UK policy documents provide little detailed discussion of the structural changes that will be needed in farming, supply chains and consumption patterns. To return to the burger, it is a perfect illustration of the 'technical fix' style of solution to the problem of global food security that dominates the policy discussions reviewed in the book. Launched in a carefully stage-managed media event, the burger is the product of a highly capitalized research and development process, which takes ideas of ecological modernization, or 'sustainable intensification', to new extremes. The production processes are so modern and so intensive that it seems that farms, farmers and animals are barely needed: thousands of burgers could potentially be produced from just one tiny sliver of beef muscle. Advocates of in vitro meat production point out that this type of food manufacture would reduce water consumption and carbon emissions associated with meat production, as well as eliminating animal suffering. It would help to satisfy the growing world demand for meat and therefore presents a solution that fits nicely into the current reductionist trend of framing food security as essentially a problem of global resource limits versus increasing demand (as also evidenced in critiques published in the *Journal of Rural Studies* (2013, vol. 29) special issue on food security). Quite apart from the many assumptions underpinning these arguments (such as the idea that ever-increasing meat consumption is an immutable societal trend), the process of developing the burger, in as far as it can be understood from my quick scanning of the media coverage, is quite at odds with the 'politics in practice' and 'reflexive localism' advocated by Goodman et al.

The forms of knowledge required to produce the burger are also different from the 'growing knowledge' described in this book and seen as necessary for the development of better food and better societies. This is a second key theme that the burger and the book illuminate from different perspectives. Chapter 9, which for me is one of the most important parts of the book, deals with the difficulties of creating the shared knowledge practices that are regarded as the foundation of alternative 'communities of practice'. Drawing on a real-world example of an attempt to create an organic strawberry-growing manual, the chapter demonstrates how different kinds of knowledge are regarded as credible within different institutional and work environments. It also illustrates how the implementation of knowledge practices is inseparable from the political economy of food production. The case study describes attempts to find replacements for the banned chemical methyl bromide, which was used to cleanse the soil of pathogens. In fact farmers already know that intercropping with broccoli cuts down on soil pathogens, but it brings in less money than strawberries, and this can be an issue if they are paying land rents that are based

on more lucrative per acre returns from strawberry production. Researchers in this case wanted to show that organic growing could alleviate the need for the use of methyl bromide or its replacement methyl iodide (which is even more toxic) but the difficulties lay not only in terms of the financial barriers to changing behaviour, but also in how to forge communications between two different knowledge systems: one based on scientific peer review of verifiable evidence-based results, the other on daily, embedded learning from peers in the strawberry production sites. This is a very important chapter because it really goes to the heart of current battles about the future of food – battles about what is known, what can be known, and perhaps most crucial of all, what can be accepted as legitimate. This is particularly important when considering the ‘sustainability’ of food systems because we can only really tell which behaviours are sustainable with the passage of time; in other words, the sustainability of any action can only be fully evaluated with a degree of hindsight. Localized and organic food systems are often dismissed because the dominant, albeit contested, ‘scientific’ view is that they are not productive enough and are actually just an enjoyable diversion from the serious business of feeding the planet. But as critics of this view suggest, the focus on technical fixes to improving productivity narrows down what counts as food ‘security’ as well as what can be known about it. To return to the lab burger again, it is the outcome of a type of highly specialized knowledge that can only be known and practised by a very few people (only a handful of scientists around the world know how to grow new muscle cells in a petri dish). When Goodman et al. talk about shared knowledge practices they are also concerned with the ways in which these become embedded in daily behaviours and routines, and they argue that the ability of alternative food networks to expand depends on their capacity to ‘reconfigure’ these routines away from the niche and into the mainstream. In other words, social innovation is required in order to build new practices and shared understandings of what constitutes good and sustainable food. Hence another reason why the burger is indicative of the deepening of ecological modernization rather than any radical change to the food system: its consumption will require no consumer behaviour change whatsoever, beyond a suspension of mistrust about its actual contents. On past experience, and often out of necessity, consumers have already demonstrated an ability to suspend (or at least suppress) their mistrust, eating all manner of processed-meat products despite various media horror stories about ‘pink slime’ and horsemeat.

Linked to this last point, a third key theme that resonates with the story of the burger and is a powerful thread running throughout the book is that of quality. Media reports about the test-tube burger picked up on the issue of taste, and questions have also been asked about the long-term safety of the product. The ‘expert’ tasters who were brought in to sample the product remarked that it tasted ‘close to meat’, although lacking in fat and flavour. Taste and safety are key components of overall food quality, but as illuminated throughout the book, quality is also about provenance and identity, process and certification. The politics of quality, or ‘who defines how food is grown and how it is known’ is a central field of engagement in the world of food, and ‘quality’ is a construct that can be enrolled into projects of very different political ambition. In Chapter 5, the authors ask some very pertinent questions about the politics of quality. For example, does the mainstream food system subvert the moral geographies of locality foods as they enter the market and industrial worlds of corporate retailers? Can mainstream retailers provide wider social access to quality foods and stimulate gradual transformation of food provisioning towards

a more equitable, sustainable future? Again, they use several case studies to examine the efforts of locality foods to either fit into corporate networks or resist. They situate these efforts within the context of the rise of the supermarkets as the chief arbitrators of quality, in tandem with the retreat of the state to baseline food safety regulation. With traceability now a mantra that is frequently invoked as the key to ensuring food safety and food quality an 'audit culture' of supply chain governance has emerged (p. 88), although the credibility of this has surely been undermined in the wake of 'horsegate'. Elsewhere in the book, quality reappears as a major component of the branding of fair trade products, thus enabling their entry into mainstream markets at the expense of their original moral geographies concerned with the building of transparent and direct relationships between producers and consumers. Throughout the book, food quality is recognized as political and, in Chapter 11, some searching questions are raised about the material implications of the 'tyranny of quality'. In the context of fair trade's reorientation towards high-quality products marketed through the major retailers, the chapter asks about the effects on supply chains and farmers themselves. It suggests that farmers and communities without the right quality products, post-harvesting facilities or knowledge systems to engage with globalized retailer supply chains are often excluded from contemporary fair trade networks. They are typically the most disadvantaged farmers on the worst soil – the very people that fair trade should support. So what about the quality of the world's first test-tube burger? It remains to be seen how this will be constructed and audited but there is little doubt that a process of legitimizing the notion of in vitro meat production as a safe and sustainable food source has already begun.

I have so far structured this review around the key themes of food security, knowledge and quality, all of which run through this book as well as being invoked by the burger story. I want to draw the review to a close by chewing over the real 'meat' of this book, however, which is the extent to which alternative food networks can be regarded as precursors of a broader project of social empowerment and progressive change, which would perhaps render the idea of a test-tube burger redundant. In order to address this issue, the authors use extensive case study evidence, either from existing studies or their own research, to critically examine the politics and practices of a range of local and locality foods, organic foods and fair trade networks. Building on their already published work, they take their conceptualization of a reflexive politics of food to a new level, building in greater theoretical rigour and developing a sustained but constructive critique of the first 40 years of alternative food activism. They do not see alternative food networks as 'oppositional' in the sense of wanting to overthrow states or capitalism. Rather, their alterity comes from the development of new ways of doing things that coexist within the current powerful system of corporate-dominated food chains and attempt to change it from within. One of the features that makes their overall analysis so convincing is the fact that the authors consistently avoid becoming glassy eyed and romantic about local and alternative food movements. Chapter 2, for example, covers some familiar ground in its arguments about the dangers of 'unreflexive' localism, but takes these further by engaging in depth with theories of justice and also proposing a description of reflexive localism as a practice. The practice requires an admission of the contradictions and complexity of everyday life, emphasizes process rather than vision, does not favour any one scale of political practice, and works within multiple notions of privilege and economy. What I found particularly challenging about this overall analysis is that the authors draw a very clear distinction between the concept of 'inclusion' and

the notion of 'shared values' and if there was one aspect that I felt needed more development it was this point. In Chapter 8, it is argued that alternative food networks that focus on forging communities of shared values are intrinsically inegalitarian because they are based on a single worldview. This kind of 'romantic' worldview is based on a dialectical notion of change, whereby development emerges from a personal conversion to new values, and then 'changing others' consciousness to become members of a community that shares these values' (p. 156). A politics based on shared values tends to discourage participatory deliberation and different points of view. Reflexivity on the other hand is anti-romantic, and rejects the idea that there is such a thing as an 'ideal' life. The authors thus walk a fine line between a welcome reflexivity and the danger of relativism, which shies away from assessing which values have exclusionary and self-serving potential. Whilst they draw attention to the dangers of shared values, they also recognize that values are what drive and inspire people to try and do things better. The point, I think, is that the construction of values needs to be recognized for what it is: the continuously updated outcome of a contested politics of ideas and knowledge, rather than the production of fixed or monolithic notions of the best or 'right' ways of living. In future work, it would be useful to see some really concrete case studies of the practices of constructing reflexive food politics that manage to be principled without being exclusionary.

I began this review noting my difficulty in knowing where to begin. This difficulty, I conclude, stems from the fact that this book provides such an extraordinary wealth of ideas and themes that it is difficult to do justice to the impressive depth as well as breadth of material that it covers. It draws on a wide range of published case studies and also builds new conceptual 'bridges', which open up new theoretical avenues and will surely stimulate a new generation of alternative food network research and debate. *Alternative Food Networks* offers many 'ways in' and also benefits from multiple readings. It delivers its ideas within the context of a consistently argued conceptualization of alternative food networks as a politics in practice, and with a commitment to putting them on a firmer footing. The authors, in their other work as well as this fine book, hope to 'walk a line' between conventionalization arguments which bemoan the appropriation of alternative food projects into the mainstream economy, and celebratory accounts which herald such projects as the precursors of a better food system and a better world. In this book, I think they do hold the line, skilfully articulating the many contradictions and imperfect knowledges and practices that make up our multiple worlds of food.