12 Autonomy, radicalism and the commons

Co-optation: the lingering threat

There is always, in food movements, the potential or vocation to be radical and subversive, break through dead equilibria, and open the way to a social re-ordering.

Today's generation of social movements to which food is central (Holt-Giménez and Patel, 2009) can therefore be placed within a long tradition of counter-systemic struggle. Thus, in the works of early nineteenth-century utopian socialism (utopianism being of special interest, given our concern with visioning), we find articulated a symbolic meaning of food beyond its material significance. In the work of Weitling, humanity itself is ripening (towards a stage where it can finally realise co-operative principles) while, at the same time, the physical harvest can only be maximised if we ourselves co-operate (Weitling, 1979 [1838], p.72 ff); one of the first communistic gatherings was a collective feast (Pillot, et al., 1979 [1840]). It is important to note that Marxism was conceived not as a denial of the utopians, but rather as a way of building on their work and taking it to the next level (Engels, 1970 [1880]; Geoghan, 2008). A further pivotal role was played by Kropotkin, who placed the food issue centrally within his discussion of revolution (Kropotkin, 1892). The English land and freedom movement of the 1970s proposed five interrelated tasks (c.f. Hobbs, 1976, p.136) – protection of the land, production of food, distribution of land, creating new human settlements, and providing for exchange learning of skills and knowledge. This is actually a brilliant formulation which has never been bettered, and forms a bridge linking centuries-old peasant and anti-colonial movements with today's food sovereignty/agroecology.

Taking all this together, we can say that food struggles encompass both the issues of immediate material livelihood, which all revolutions must address, and the big strategic issues going *beyond* immediate survival: dis-alienation, human rights and real democracy; all of which tend to converge in today's land and food struggles.

Nevertheless, alternative/organic food movements also have a serious vulnerability to co-optation. It is this duality that we need to address. While, on the one hand, radicals must connect with real, existing mass struggles on issues of significance to livelihoods (without which their politics would be meaningless), there is, on the other hand, always the risk of forgetting the strategic vision and dissipating radicalism into 'safe' channels.

A case in point is the history of home gardens in the nineteenthcentury English Chartist movement. Food autonomy was an important issue for Chartists, leading many to turn to food production as an extension of their politics. In the early period around 1840, when Chartism was frankly insurrectionary (Peacock, 1969), there was a debate about this, with many leading activists critical of what they saw as sidetracking the movement away from its political goals. Later, under the influence of Feargus O'Connor, Chartism became strongly supportive of gardening activities (Willes, 2014, p.136). Does this signify co-optation or, alternatively, a tactical repositioning for a no-longer insurrectionary phase? These are the questions which can only be assessed in the concrete (not through any one-size-fits-all formula), and they will keep recurring in the historical dialectic. One example might be Argentina, where parts of the radical piqueteros movement of the early 2000s (c.f. Palomino, 2003) (we emphasise, parts, because it also subsists in factory occupations, alternative currencies etc.) have been channelled into food growing; is the effect to divert the movement from radicalism or, on the contrary, to root and embed it more profoundly? The answers must proceed from the specificities of each case, treating it as part of a discontinuous and 'lumpy' learning/conscientisation process leading eventually to the 'Hic Rhodus, hic salta' moment of radical system-change.

Is there something within sustainable farming which makes it vulnerable to co-optive manipulation? This question prompts us to delve deeper into some contradictions and ambiguities of its conceptual foundations.

Perverted discourses of 'community' and organics

Let us begin by interrogating general systems theory, which highlights similarities in the workings of all systems. It offers a great tool for identifying common features between society and ecology, and in this sense is fundamental to what we are attempting in this book. However, there are obvious risks - of which the feedback loop between social-Darwinism and Malthusianism already gave us some flavour – that dodgy readings of society can be transposed onto nature, and then transposed back again onto society to make them seem natural. Suppose we base our visioning of food futures on some 'harmonious' ideal of systems in equilibrium where there are no messy antagonisms. This would ignore the conflicts which necessarily and rightfully exist in exploitative societies whose populations suffer social and environmental injustices and would turn its back on the struggles of the oppressed, by which alone a new food system could come into being. From here, it is only a small step for the discourse to become a tool actively aiding the *repression* of these struggles.

We may begin by dissecting the notion of 'community'. As employed in ecological theory, for example by Odum (Odum, 1969), the strength of this term is to represent the diverse ensemble where all bits work together. By extension, this could offer an excellent metaphor for a co-operative reorganisation of society: with society running on similar principles to the ecology, everything would move back into harmony. This all sounds fine and, in a way, is close to what we are advocating in this book, which is all the more reason to be vigilant about how the argument could be perverted.

The problems are revealed by sociology's classic debate around the issue of community (*Gemeinschaft*) versus society (*Gesellschaft*). If we take 'society' as a representation of all that is modern and alienated, and community as the thing we need to get back to, such a discourse can easily be subsumed by reaction. In this sense, there is a kind of manipulative risk latent within the past/future dialectic.

To concretise this, we may take the case of Austrian biologist Ludwig von Bertalanffy (1901–72), who is revered as the founder of general systems theory, and his contributions should indeed be recognised. Nevertheless, von Bertalanffy, in the 1930s, adopted an indefensible attitude to the contemporaneous rise of Nazism (Pouvreau, 2009, p.61 ff).

The Nazis were peddling an eclectic mixture of pseudo-rationalism and mysticism. On the one hand, it was a social-Darwinism premised on extreme competition and Hobbesian Führerprinzip; on the other hand, some mock-historical notion of 'wholeness' and an 'organismic' interpretation of *Gemeinschaft*. In response, while von Bertalanffv critiqued the absurdities of the former, he did so only in order to uphold the latter: the organismic Gemeinschaft doctrine. In general, there was a whole land/nature theme within fascist ideology. We encounter this in the propaganda of Pétain's collaborationist regime in France, which centrally appealed to images of soil and land (Mirolo, 2011) (la terre, elle, ne ment pas). It was also during this period that Rudolf Steiner's biodynamic principles were gaining currency and this again is a complex issue. While aspects of biodynamics, notably the 'preparations' it employs, are being taken seriously in recent research on microbiology (e.g. Giannattasio, et al., 2013), there was nevertheless something in the mystique of harmony with land and soil which appealed to Nazis, causing Hitler - as McKay very interestingly describes (McKay, 2011) - to adopt biodynamics as the Reich's farming paradigm.

It is imperative to learn from this history, because co-optive dangers exist today, even if in a less obvious form.

The case of the Transition Towns (TT) movement is interesting in this context, particularly in relation to the urban focus of this book. It has a visioning methodology that not only features food-growing as a key component but was also in many ways inspired by permaculture methodology, which influenced TT founder Rob Hopkins in thinking about how society could learn from sustainable farming (Hopkins, 2015). Permaculture in turn picked up on Holling's and Odum's systemic view of issues like complexity, diversity and resilience. Accordingly, TT produced a 'forest model of society' (Hodgson and Hopkins, 2010) which looks quite like an idealised class hierarchy, with a nostalgic dose of feudalism thrown in. In this image, corporations dominate the forest canopy while social initiatives creep in the undergrowth, the implication being that everyone knows their place and touches their forelock in deference to the social order. Our reason for making this point is not to attack the Transition movement or permaculture, which both have some progressive potential, but they would need to be aware of the co-optive dangers before they could hope to realise that potential.

In addition to these 'old' co-optive themes, there are new ones more specific to current neo-liberal agendas. Thus, by transcending modernism (which, as we saw, inherently distrusted free self-organising from chaos), capitalism accesses a range of new co-optive options. If neo-liberal capitalism could harness and constrain the free energy of self-organisation, this could conserve the energies it might otherwise be forced (under Keynesianism, for example) to devote to running society... and thus allow it to offset the entropy of capitalism (Biel, 2012). In a manner anticipated by Foucault, a partially self-organising and decentralised system could run the system better than under modernism, and the 'community' theme could play a full part in this. Thus, community initiatives, including food-related ones, could easily be harnessed as a selling-point for gentrification and place-marketing (Slater, 2014). In London, right-wing populist Boris Johnson strongly promoted, during his mayoral tenure (2008–16), a programme of community food growing. This theme is closely related to the co-optability of resilience itself: a resilient food system is 'secure', in a sense which may be embraced by ruling security discourse (c.f. Neocleous, 2013) – a discourse that, post 9/11, encompasses anything and everything. In this way, the survivability of capitalism would be bolstered by the faculty of communities to survive somehow.

So it is vital to establish a line of demarcation from co-optive strategies of neo-liberalism. Where the latter embraces themes of 'community', resilience etc. in order to drag them away from radical class politics, we should assert that it is actually only *through* radical forces that we can arrive at a future where society and nature work on common principles. Concretely, we can aim to situate organics within a *socially critical* approach to general systems theory.

On this point, we can learn from systems theorist Edgar Morin (b. 1921), himself a veteran of anti-fascist resistance during the Second World War. Morin draws an important distinction between 'organicism', which instrumentally manipulates metaphors from nature, and 'organisation' in the sense of discovering common organising principles for human and natural systems (Morin, 2008, p.15). In fact, as Morin points out, the discourse of holism may itself be reductionist, it is just that it reduces things to the whole, rather than (as in conventional reductionism) to the parts; in place of this, he argues, we should speak of confluence (Morin, 1979). This argument closely connects with that of Levins and Lewontin, who uphold dialectics against 'the idealist holism which sees the whole as the embodiment of some ideal organizing principle...' (Levins and Lewontin, 1980, p.51). So maybe we can sense a kind of 'totalitarian' definition of holism underpinning the fascist co-optation of that notion. Similarly, co-optive approaches – fascist or neo-liberal - tend towards a discourse of 'no alternative', in contrast to the radical view of the future as open-ended and of crisis as opportunity. Significantly, Morin's recent work now converges with

that of food/agriculture activists like Pierre Rabhi (a respected French Algerian agroecologist), as part of a project to respond to the crisis by visioning alternative solutions premised on altruism (Morin, et al., 2012).

The dominant discourse always tries to scare people away from the chaos which would ensue if the 'natural order' of privilege is shaken. In this context, the inbuilt conservatism of mainstream systems theory lies in its resistance to taking on board the advances made, beyond the Presocratics by Hegel, and then (beyond Hegel) by Marx (Shames, 1981). These advances might particularly emphasise the Hic Rhodus, hic salta moment of progressive rift.

Guerrilla gardening and the critique of the state

How, then, in practice, to escape the co-optive parody of organicism? This takes us to a question which has hovered right through our discussion so far: a socio-institutional equivalent for the panarchy which organises natural systems.

The centrality of this question may help explain why 'guerrilla' images are so prevalent in urban gardening: they makes direct appeal to self-organised struggles whose lack of a centre is a virtue because they are hard to repress. Thus, 'guerrilla urbanism' emphasises that the city is a human system and its emergent properties develop from its people: we cannot simply address self-organisation at a technical level without also embracing struggles for emancipation and environmental justice (Mares and Peña, 2010). At the same time, an explicit connection is made between the chaotic self-organisation of nature, and of society. Guerrilla gardening (Reynolds, 2008) seems to have an evolutionary capability to throw up new forms, one example being 'Guerrilla Grafters' who, in San Francisco, graft fruit-bearing branches onto ornamental trees (Zimet, 2012). It is a societal struggle conducted through the selforganising capacity of nature, as in guerrilla gardening's adaptation of Masanobu Fukuoka's seed-balls – whereby you toss randomly a variety of different seeds enrobed in clay and allow nature to choose where they are best suited to grow – as 'seed-bombs'. The whole of this approach is rooted in a subversive exploration of space: thus the notion of 'islands of unpredictability' (Carlsson, 2008) could be considered in a dual way, meaning both 'room' for experimentation, and an actual physical 'zone' where this happens.

So, in all these ways, by allowing unplanned and unstructured initiatives, we liberate the terrain for structure as an *emergent* property both of society and of nature.

This argument seems to tend in a very non-statist or anti-statist direction. Although, etymologically, anarchism suggests absence of rule, in reality it is probably quite similar to the 'panarchy' (Gunderson and Holling, 2002): there is 'an order', only the system itself (rather than any ruler) decides upon the order, and – importantly, since it is a dynamic order – how it develops. The strong historical link between anarchism and food issues, set in motion by Kropotkin (Kropotkin, 1892), was more recently developed in the work of anarchist theoretician/practitioner Colin Ward (1924–2010), whose commitment was strongly influenced by his study of food-related working-class selforganisation (Crouch and Ward, 1997). It is interesting that Ward, just like the Soviet dialecticians of the 1960s (c.f. Günther, 1964) (though Ward himself would not necessarily have wished for their company!), identified cybernetics as a key theme, interpreting this to mean the need for a society to self-organise as a function of its complexity (Ward, 1973).

Against this background, we might ask, why speak of 'food *sovereignty*'? After all, sovereignty is conventionally an attribute of the state and, in its classic form, (often called 'Westphalian' after the midseventeenth-century peace agreement which ended the Thirty Years' War) was a pure product of the European capitalist revolution. This implies dominance over a defined portion of the earth's surface and its resources, a kind of extension into international politics of the Baconian notion of dominating nature.

However, in reality, it is fair to say that food sovereignty as generally understood would distance itself from such a meaning. For example, in the Indian context, food sovereignty picks up many resonances from the Gandhian term *swaraj* to imply a sense of self-rule combining autonomy with curbing excess consumption. In parts of Latin America, such as Bolivia, the nation itself is redefined in a manner closer to indigenous notions of stewardship than to Baconian/Westphalian dominance. In general, then, food sovereignty is more about autonomy at a community level rather than at a national level, and is therefore perhaps not too different after all from an autonomist politics.

Based on the argument so far, it seems that a system which is not 'ruled' – in a conventional political sense – would be the social equivalent of a self-organised nature, and therefore the obvious basis to bring society and nature back together. Although the above reasoning is neat, we must however remember we face an extremely serious task in transitioning to food sustainability, a task upon which – particularly given the interaction between farming and climate – it is no exaggeration to say that the future of humanity depends. Our attitude must therefore be responsible and not doctrinaire: we cannot simply dismiss a role for the state in the intermediate (transitional) phase before society moves more fully to self-organisation. The application to food/agriculture would explore the connections between:

- (a) the notion of transition in socialist theory;
- (b) the more specific meaning of a conversion period on the road to organic farming.

Concretely, you would need to escape the pull of current capitalist food circuits, organised at a world level (as recent trade agendas like TTIP illustrate all too well). If sustainable socio-ecological circuits are to re-establish themselves, it would be extremely helpful if they could be shielded from global ones.

Debating the history and continued relevance of socialism

One definition of socialism could follow from this: a transitional phase where state power is temporarily needed to shield a new society from being overthrown. Might we hypothesise that a socialist state could establish some supportive mutual respect for grassroots socio-agricultural practices, by analogy with the compromise forged (Chapter 7) by those pre-colonial empires (for example, in the Americas) which placed their authority behind a generalisation of sustainable practices which were initially trialled by popular experimentation?

It is true that the risk could be for something calling itself socialism to sink into a stagnancy which is no longer a transition to anything; or it could adopt a modernising tendency opposed to the re-integration with nature advocated by Marx, seeking to out-do capitalism on the terrain of productivism. Nevertheless, we should examine the experience concretely, if only to understand and learn from where it could go wrong.

Under Lenin, the Soviet Union promoted the brilliant geneticist Nikolai Ivanovich Vavilov (1887–1943) to lead a research programme which, premised on a deep respect for biodiversity and for the hands-on day-to-day experimentation of ordinary peasants, made the USSR the world leader in this field (Nabham, 2009).

This went tragically wrong later and, although many things went wrong under Stalin, this particular case is worth looking at more closely. The focal point of degeneration was the state-imposed dominance of the ideas of T.D. Lysenko. This is a complex and interesting question, because Lysenko was a peasant without formal training and some of the issues he raised remain relevant today:

- [1] we should pay more attention to natural complementarities;
- [2] practice suggests that, among food crops, certain acquired traits can be inherited, notably those which result from plants being exposed to challenging conditions.

It is worth recalling our earlier discussion of Pascal Poot: there is something about a peasant practitioner who is closer to traditional ways and able to see things which mainstream science misses.

Particularly in relation to [2], it is now clear that there is much subtlety in evolution – sometimes an adaptation occurs first and the mutation follows (as is probably the case with the first migrations of creatures onto land) or, in the case in question, events which trigger gene expression can influence succeeding generations. We can encompass this as an enrichment of natural selection without in any way contradicting it: as *New Scientist* rightly says, 'Evolution is true. But it is also a living, breathing idea that must not be allowed to ossify into a dogma of the kind that it has done so much to sweep away' (New Scientist, 2016, p.5).

Of course, the way science lives and breathes is only through vigorous debate and critical testing of theory. Where the Soviet experience turned to nightmare was that once Lysenko's ideas received official backing no-one dared challenge them and, in the absence of any grasp of the subtleties of gene expression, Darwinism was replaced by a full-scale Lamarckian model of inheritance of acquired characteristics, bolstered by fake experiments. Opponents were crushed and many (including Vavilov) killed, leading to a general collapse of science.

Drawing lessons from that tragic episode, obviously that was a perversion of socialism of which we must remain very wary. At the same time, we should remain equally aware that an instrumentalisation of agricultural science exists in a form imposed by *capitalism*, and people are getting killed all the time if they rebel against the Green Revolution or Monsanto. Indian farmer suicides numbered 12,360 in one year alone (2014) (Business Standard, 2015); a significant number of them can

plausibly be considered Green Revolution-related. There could still be a role for a definition of socialism that:

- (a) provides a shield against such imperialist corporate perversions of science;
- (b) rigorously respects the highest standards of research; and
- (c) pays full attention to the contribution of hands-on producers.

There is a postscript to this, relevant to the role of state power, which is the rise of organics in today's Russia. Recently, the Russian government approved an extremely radical strategy to restructure the whole agricultural system along organic lines (Case, 2015) and, although this is no longer socialist, it probably builds on aspects of the Soviet legacy while rejecting other bits. There was a whole interim narrative following the collapse of Lysenkoism which it would be interesting to research, notably the contribution of N.A. Krasil'nikov of the Soviet Academy of Sciences, Institute of Microbiology (Krasil'nikov, 1961 [1958]). Krasil'nikov promoted an organic method to which (amazingly, at the height of the Cold War) even the US looked for inspiration in addressing its dust-bowl problems. This may well have built on the work of N.I. Vavilov, and was of course also contemporary with the rediscovery of dialectics by E.V. Ilyenkov, which we discussed in Chapter 6. Although other aspects of Soviet agriculture were clearly not sustainable, after the Soviet system's collapse the weakening of the state made food security even worse (Ioffe, 2005). Accordingly, at the beginning of the 1990s, the remnant of the former Academy of Agricultural Science proposed a strategy to convert former state and collective farms to organics (Buys, 1993). So the recent pro-organic policy choice comes on the basis of quite a long and convoluted interaction between socialism, statism and organic transition, one which, (to re-appropriate Lenin's words), proceeds '... not directly, but by zigzags, not consciously but instinctively, not clearly perceiving its "final goal," but drawing closer to it gropingly, hesitatingly, and sometimes even with its back turned to it' (Lenin, 1972 [1908], p.378), but which gets there in the end.

This in turn provides a wider context within which to address the Cuban experience.

If we truly advocate feeding the world through small-scale, locally-organised (including, specifically, urban) agriculture, we would need convincing test cases. The two most obvious ones would be the 'Dig for Victory' campaign in Second World War Britain and the recent experience of Cuba. In both cases the state played a key role as initiator and facilitator, while the actual substance was decentralised, using small plots and local initiative. Yet the differences are fundamental. In Dig for Victory the actual production method – involving high inputs of a specially-conceived chemical fertiliser, National Growmore – was unsustainable. Even the name curiously embodies the fact that it was the antithesis of the no-till method (I would prefer 'No-dig for Victory'!). The Cuban model is in turn the antithesis of Dig for Victory, blending as it does the strengths of deep tradition with compatible inputs from modern science (such as biological pest control).

The Cuban experience had a big impact on urban food-related movements over recent years, notably through the film Power of Community (Arthur Morgan Institute, n.d.), which served as a major training tool for the Transition Towns movement. But Power of Community imposed a somewhat partial reading of the Cuban experience, emphasising the role of permaculture trainers at the expense of the Marxist dialectic. An alternative reading would emphasise that 'A major characteristic in the Marxist dialectical perspective is wholeness and the critique of reductionism. A recurrent theme in all of Cuban science is the breadth with which problems are approached and the willingness to span levels of organization' (Levins, 2004, p.7), an issue which relates directly to our key thesis, the readiness to embrace complexity. Specifically in relation to agriculture, it could be argued that Cuba took up the baton of the good side of the socialist tradition. One of the main things holding back organics globally is that R&D is dominated by corporate interests, whereas Cuba could channel huge research resources into organic research (Rosset, 1996). The key issue at stake is above all to reverse the loss of soil structure, and this is another issue which Cuba explicitly addressed (Gersper, et al., 1993). In this sense Cuba could be seen as a laboratory for the transition to sustainability, generating experiments of global significance which only anti-socialist bias currently prevents being more widely studied (Wright, J., 2012).

'Commons' as an abiding organisational solution

Whatever positive contribution the state may make to transition, this cannot replace the fundamental process of self-organisation, which must come from below.

There is good and bad in the realm of networking, and Deleuze and Guattari found a nice gardening metaphor to express this: rhizomes (Deleuze and Guattari, 1987, p.7). Rhizomes, they argue, include the best and the worst, potato [*Solanum tuberosum*] and couch grass [*Elymus repens*]. Therefore, fighting the bad networks (global food chains, intellectual property rules, etc.) must proceed reciprocally with cultivating good ones, and we need a principle to guide us. This is where the institution of commons becomes important.

Enclosure is an important notion in political ecology, as a representation of where it all started going wrong with the origins of capitalism and the Death of Nature. Enclosure signifies *both* an appropriation of land – in a sense where you were no longer bound by a duty of stewardship but could on the contrary do anything to it, chemically or technically – and *also* the destruction of an autonomous co-operative sphere of social self-rule which had survived even within an oppressive setup like feudalism.

However, commons proved resilient and, in fact, never really went away. There always subsisted a 'civic' or 'embedded' undercurrent within farming, working through reciprocity, and merely papered over by the dominant circuits (Lyson, 2004, pp.26–7). For all the market economy's totalitarian aspirations, there is a level of reality it cannot touch.

The fightback will involve a rediscovery and generalisation of commons, and in fact is already doing so. We can take this to include a diverse landscape of co-operative-type institutional projects (as revealed by research in which the author participated, *Mapping the Current Landscape of Food Co-operatives in London*, University College London, 2015–16), and it could in a broad sense encompass various institutional solutions to collective stewarding of resources, such as community land trusts (Davis J., 2010) or participatory budgeting (Cabannes and Delgado, 2015)...each of these being strongly applicable to food issues.

If indeed 'commoning' is the principle by which human beings have organised their existence on this earth for thousands of years (Federici and Caffentzis, 2013, p.2), there must be a reason why this particular institutional solution has been so persistent. We might seek this in relation to our earlier discussion of the universality of structure (Chapter 11), which could very well have an institutional as well as a physical dimension. In evolution, certain structures keep recurring (King, 1996) and, in the case of plants, evolution tends to explore a surprisingly well-defined region within the space of all possible combinations of traits (Díaz, et al., 2015). Similarly, we may argue, within an *institutional* space where anything is theoretically possible, this particular combination of traits known as commons keep recurring. Commons signifies a certain attitude, both to nature, and to each other. Research has found altruism to be associated with a sense of 'awe' (Piff, et al., 2015), and we might interpret this to mean that the unifying principle is 'wonderment', as we contemplate a universe which – in both physical and social systems – requires co-operativity of its diverse components. We further see a connection in a notion of *care* (c.f. Davidson-Hunt and Berkes, 2003), which again would apply both to nature and to other people. The continuity with historic commons is more recently embodied in new, specifically urban, institutional forms which similarly bridge respect for nature and for social interaction. Thus, community gardens constitute '... microcosms of democracy, where people establish a sense of community and belonging to the land' (Carlsson, 2008, p.92), while the Atelier d'Architecture autogérée, while having an important food-growing component, also looks to community self-management in a broader sense (McGuirk, 2015).

As well as the persistent theme of land, there are issues like knowledge and seeds, which used to be open to everyone, but are increasingly exploited for private gain. Commons today can therefore be seen as a kind of node linking several new/old issues around land, knowledge and genetic resources.

Knowledge is especially interesting because, although an 'old' issue, it is also frequently seen as typifying the cutting edge of recent capitalism, where intangibles are traded more than physical goods. And it is widely acknowledged (even within the mainstream) that knowledge actually functions *better* as a commons (Bauwens, 2007), a point which somehow fleshes out Lenin's argument that imperialism 'drags the capitalists, against their will and consciousness, into some sort of new social order...' (Lenin, 1939). This has big implications for economics too: in contrast to a conventional economics premised on scarcity, information is abundant and potentially free (Mason, 2015). So on this reading, capitalism has made itself out of date: just as enclosure marked capitalism's irruption, the cyber-economy prepares its demise. This connects with Colin Ward's point that complexity, produced by the system's ongoing development, reaches a point where it can no longer be managed through simplification (c.f. Ward, 1973).

The crucial issue is that, while the knowledge economy is a creation of capitalism, the latter also *restricts* the potential of its creation: this is nowhere more evident than with agriculture-related issues (seeds, biotechnology), which are heavily restricted by corporate appropriation and patenting. Consequently, the full potential of knowledge commons can only be released by contestatory movements from below, and moreover ones which explore its re-connection with land/food issues. The Free/ Libre Open Knowledge (FLOK) project, initially developed in Ecuador, is thus centrally concerned with food/agriculture, addressing 'the possibility and consequences of defining feeding as a commons...' (Vila-Viñas and Barandiaran, 2015).

However, while rightly stressing the 'beyond capitalism' theme, it is important not to get carried away with this argument to the point of neglecting the re-connection with indigenous principles: the latter have always been hostile to commodification (c.f. Taussig, 1980). In this context, it is particularly crucial not to overemphasise *information*, at the expense of wisdom. It is wisdom which really guides us in visioning futures (Bellinger, et al., n.d.), and as we have seen (Chapter 5), it is an intrinsic human trait that visioning be collaborative (Tomasello, et al., 2005) Strikingly, research now shows experimentally that wisdom is a product of the heart, not just of the mind (Grossmann, et al., 2016).

Faced with the subversive potential of commons, it is only to be expected that the ruling forces infiltrate commons debates from within, twisting the notion to serve their purposes. The ruling order needed first to break down the relationship of stewardship over resources practised by indigenous peoples, by transferring them into some realm of open access (D'Souza, n.d.); then they could be enclosed again, through privatisation. It would, however, be counter-productive to push this to a point where there no longer remained any dependent sphere of community initiatives upon which the ruling system can parasitise in order to meet the costs of social reproduction. Accordingly, mainstream institutional theory has discovered - notably through the work of Elinor Ostrom (Ostrom, 2005) - that commons can profitably occupy the region where 'excludability' is difficult (you cannot easily prevent other people accessing them) and 'subtractability' high (one person's usage diminishes that of others). Commons are therefore granted recognition, but at the expense of being contained within one segment or ecological niche of the institutional matrix, where the remainder of the capitalist economy can keep an eye on them. We might see this as analogous to the Transition movement's 'forest model of society' (Hodgson and Hopkins, 2010), where community initiatives creep in the undergrowth while big capital soaks up the sunlight. A niche institutional segment thus guarantees society its day-to-day minimum functions while gated cities of the privileged mine the benefits. This 'contained' commons is a kind of reversion to the feudal manorial economy, where serfs had their duckponds and sheep-runs but the lords still ran the show.

In response, the radical trend must do two things. Firstly, reject a restriction of commons to some 'acceptable' sphere. Of course, commons as distinct from an open-access regime – may be legitimately focused on some *particular* and defined area or resource, with a particular community having access/stewardship/responsibility for it. Nevertheless, in the radical formulation associated with Gerrard Winstanley of the Diggers of 1649 (Winstanley, 1983 [1649]), which has proved a major inspiration for subsequent land/food struggles, commons implicitly and intrinsically embraces the whole earth. Secondly, insist on the *contestatory* traditions and values of the movement. In an important discussion document on the future of Community Food Projects, Ru Litherland points out that these 'can be seen as part of the rich tradition of self-help and mutual aid, alongside credit unions, breakfast clubs, co-operative societies and barn-raising, which enable individuals and communities to survive the inhuman effects of capitalism in the now, whilst constructing a set of steps which enable us to climb and view a vision of a juster world.' (Litherland, 2010, p.1–2). Applying this concretely, a typical programme of events from the Community Food Growers' Network in 2014 lists: a seed swap; projection of the documentary 'Raising Resistance' from Paraguayan farmers; a meeting on 'Pathways to Food Sovereignty'; support for Radical Housing Network's campaign 'London is Not for Sale': a demonstration by the Land Workers' Alliance; a 'Peasants' Struggle' pub quiz; and an agroecology skill-share referencing sustainable agriculture in Tanzania (OrganicLea, 2014).

This again connects with the work of Colin Ward, of which it has been observed: 'Rather than sketching out utopian blueprints of a society without a state, [Ward] searched for empirical examples of everyday people organizing to solve their own problems. Once he started looking, he found that voluntary, non-authoritarian cooperation was everywhere.' (Walker, 2010).

A specifically human function is our ability to acquire 'information about the future' (Roederer, 2003, p.3) and, in this way, commons can be a *learning* tool, a way of accumulating practice in running society in a new way, one of constant self-critical testing, part of the process whereby revolutions overcome 'the inadequacies, weaknesses and paltrinesses of their first attempts' (Marx, 1969 [1852], p.401). This is very much the spirit of the Mexican Zapatistas, as they generate a set of practices, arrived at through trial and error and constantly analysed (EZLN, n.d.). There is a close analogy too with Lenin's point about trade unions acting as 'school' or 'apparatus' for the workers in learning to run production (Lenin, 1937 [1920], p.68). Agroecology is itself an alternative way of learning, an educational approach less elitist and pontificating, more akin to citizen science and action research and open to Foucault's ideas about critiquing power relations in the production of knowledge (Bell, M., 2011). It therefore naturally fits with those participatory research methodologies which draw on the work of Paulo Freire (Puttnam, et al., 2014). In all these ways, food initiatives contribute to the quest for a new order in which society and nature explore common principles of self-organisation.

This connects with the notion of autonomy, a key component of food sovereignty movements. The intrinsic link between food sovereignty and agroecology addresses a re-connection with nature, an issue essential to the Rights of Nature International Tribunal held in Paris to coincide with the COP 21 talks in 2015 (Global Alliance for the Rights of Nature, 2015). It is about making both nature and ourselves free from the unsustainable practices and global circuits which are destroying them. Thus in San Cristóbal de las Casas, Mexico, people held a Festival of the Free Tomato: free from social exploitation and agrotoxins...so the two kinds of freedom go together (Colectivo La Patria de Chiapas, 2013). Similarly, food transitions and societal transitions go together: a permaculture event in the same locality shows participants embraced by a geodesic dome (Instituto Permacultura Ná Lu'um, 2013). The geodesic was invented by Buckminster Fuller according to the principle of 'doing more with less' (Buckminster Fuller, 1982), which is a design principle exactly along the lines of the 'do-nothing' farming proposed by Fukuoka. And 'design' in permaculture means not an imposition of order on nature, but a conscious adopting of nature's own principles. In this sense, the technical side of agroecology is inseparable from the social and institutional way in which farming - and in a broader sense food networks, and in a still broader sense society as a whole organises itself.

There is a duality within humanity. On the one hand we are capable of bringing collaboration and holism to the level of dialectical thought and a conscious futures visioning but, on the other hand, we have separated ourselves from nature and built structures – including, eminently, land/food systems – which exploit and degrade nature and ourselves. Winstanley, in seeking to articulate this duality, forged a remarkable conceptual vocabulary which, while in some ways anticipating Blake in its imagery, anticipates also the Enlightenment with its appeals to reason. Through this, he challenges the narrative through

which the selfish and exploitative Esau, or Cain, persistently slays his brother:

And thus Esau, the man of flesh which is covetousness and pride, hath killed Jacob, the spirit of meekness and righteous government in the light of reason, and rules over him: and so the earth, that was made a common treasury for all to live comfortably upon, is become through man's unrighteous actions one over another to be a place wherein one torments another'; ... the earth hath been enclosed and given to the elder brother Esau, or man of flesh, and hath been bought and sold from one to another; and Jacob, or the younger brother, that is to succeed or come forth next, who is the universal spreading power of righteousness that gives liberty to the whole creation, is made a servant. (Winstanley, 1983 [1649], p.79)

To overturn this injustice is the culmination of a big historical process, in which we are now called upon to participate. For all the special features of capitalism analysed in this book, the issue actually goes much deeper. This is notably the case with agrarian systems, where today's social movements for food sovereignty and land rights are a culmination of a secular history of rebellions by slaves, serfs, indigenous and colonised peoples, all those stigmatised and excluded through gender and 'racial' determinants, indentured workers, sharecroppers and in general everyone dispossessed, displaced and alienated from the land/earth. Launching a collective process of analysis of the current crisis, timed to take place on May 3, 'the day of planting, of fertility, of harvest, of seeds', the Zapatistas argue: 'theoretical reflection and critical thought have the same task as the sentinel. Whoever works on analytic thinking takes a shift as guard at the watchpost' (Galeano, 2015). It is a heavy responsibility to get this right and not allow ourselves to be distracted by partial and distorted observation. The reward of getting it right is the possibility of settling accounts with the oppressive legacy of history and moving forward, to a new regime in relation to food, land and the earth.