introduction do it yourself

The Trapese Collective

Everyday, everywhere, through spontaneous and planned actions, people are changing the world, together. These everyday actions come from the growing desire to do it ourselves – plant vegetables, organise a community day to get people involved in improving where we live, expose exploitative firms, take responsibility for our health, make cups of tea in a social centre, figure out how to install a shower powered by the sun, make a banner, support strikers, pull a prank to make someone laugh, as well as think.

This book is a call to get involved in practical action and reflection to create more sustainable and fairer ways of living. Part handbook, part critique, it is designed to inform, inspire and enable people – you, the person sitting next to you on the train, your neighbour, your mother, your children – to take part in a growing movement for social change. It is us that can make the changes and it is us that will have to.

We believe that this social change is best understood through experiences and real human stories, not abstract ideas. Nine different themes are explored in this book where people are struggling to wrestle back control and build more equitable and just societies – *sustainable living, decision making, health, education, food, cultural activism, free spaces, media* and *direct action.*

This is not a book about a grand unfolding of a new theory on social change or a way to sign up to membership of a political party or campaign group – 'Give us £10 and we'll save the world for you'. It is not a restatement of what is wrong with the world (there are many fantastic books out there that do that already) or about the need to overthrow governments or take the reigns of political power. It's about what we can all do about the challenges we face in the world and how we can make governments and corporations increasingly irrelevant.

Although there is a sense of urgency about what we are saying, there are huge challenges that stand in the way of empowering people to take control collectively. The process won't necessarily be easy and this book does not intend to glamorise what

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the editors and contributors know can be very hard work. While the book talks about the urgent need for change there are a number of tensions to deal with in making these ideas more accessible and less intimidating to people. There are also many competing voices and visions in the struggle for a better world. Stating the case for managing our own world collectively is difficult as many people ask why they should get involved when there are paid politicians to do so. Not only have people deferred responsibility to leaders and bosses but they are mostly distracted by getting on with their lives, by consumerism, celebrities and the humdrum of daily life.

In response, this book has no easy answers but starts from a premise that there is a growing awareness that change is needed and that the way to make it relevant is by mixing resistance and creativity in to a powerful movement that is part of everyday life. As mass protests against the current economic system have ricocheted around the world from Seattle to Cancun, beyond the spectacle of the banners, tear gas and riots, when the streets become silent again, ordinary people are doing extraordinary things, learning by doing, imagining and building the blocks of other possible worlds. We can resist the world we live in while at the same time creating the world we want to see. These small acts are the bedrock for real social transformation – as the phrase goes 'be the change you want to see'. They are the starting points for bringing us together to build our lives outside the logic of capitalism.

if you're not pissed off, you're not paying attention!

Have you ever had the feeling that something is very wrong with the world? Maybe it is the escalating war in the Middle East, or the war on terror (what many call the war of error), people and communities divided by fear and mistrust of each other, that 20 per cent of the world's population use 80 per cent of the world's resources, the potential of catastrophic climate change. Perhaps it is bullying bosses, working long hours for poor wages, while multinationals continue to bleed people and their lands for profit. Maybe it's because public services are being privatised and politicians don't listen, penthouse lofts replace public spaces and house prices soar whilst the majority live in a constant spiral of debt. Or that cases of cancer and stress related diseases, mental illness and depression continue to grow. How have we got to this point?

In twenty-first century democracies, the way that we are supposed to change something or do 'anything' is to vote – our lifetime's supply of democracy is ten crosses on a ballot paper. Don't worry, commentators say, our political representatives will make the changes we want for us, all we need to do is write to our elected representative and ask them. Yet politicians cannot solve the problem because they are an

intrinsic part of the problem, influenced by big business, the possibility of advancing their careers and becoming directors of multinationals, they are at the heart of rotten political systems that largely serve free market policies of neoliberalism.

It is no wonder then that voting has declined and cynicism and apathy have grown as politicians move further away from the everyday needs and desires of people. Politicians seem out of our control as they respond to multinational corporations or institutions like the World Trade Organisation, International Monetary Fund and World Bank whilst unfair trade, poverty and pollution continue unabated.

The voices that dare to say that it is the economic system which is the underlying reason for inequality, climate change and environmental degradation are often disregarded as extremists. The large lobbying non-governmental organisations (NGOs) and charities are able to tell us about the problems, but are unable or unwilling to challenge the root causes of these problems for fear of losing memberships and consequentially their funding. As Robert Newman asserted in the *Guardian* (2 February 2006): "Many career environmentalists fear that an anti-capitalist position is what is alienating the mainstream from their irresistible arguments. But is it not more likely that people are stunned into inaction by the bizarre discrepancy between how extreme the crisis described and how insipid the solutions proposed?"

One of the biggest crises that we face is the loss of the commons – the common assets that we have built up through centuries of struggle. All of us are facing what is called a 'new enclosure' where our communities and lives are enclosed and privatised as they are stripped of the items essential for life – be it clean water, access to decent education, affordable housing, or enough land to grow food. The problems of a global economy based on fossil fuelled infinite growth can seem overwhelming. But its inherent unsustainability can give energy for creating new ways of looking at the world and organising society. The questions, ideas and potential solutions that the contributors of this book pose explore these possibilities.

everyday revolutions

And we live in unnatural times.
And we must make them
Natural again
With our singing
And our intelligent rage.
(Nobel Laureate Ben Okri, for Ken Saro-Wiwa, 1995)

There are many different words and traditions that could be used to describe where this book is coming from. Our focus concerns 'doing it ourselves'. It is about a revolution that takes place everyday amongst all of us rather than some huge event led by a small vanguard in a hoped-for future. Not waiting for bosses, politicians or experts to take the initiative but building at the grassroots – empowering ourselves and improving our own realities – not to become individual entrepreneurs or free-marketers, but to work together to make open, sustainable and equal societies.

The principles of the book largely follow anarchist/autonomist thought. *Anarchism*, from the Greek 'without government', is a belief that people can organise society for themselves without formalised government. It argues that the best way to organise is through voluntary arrangements where people are likely to co-operate more. The word *autonomy* is from the Greek 'to self-legislate'. It originates from a strong European tradition, especially Italian and German, and more recently Argentinian, where experiments of how people organise their own lives are widespread.

Another influence of the book is the 'movement of movements', the term that is applied to the loose network of hundreds of social movements, groups and thousands of people who are part of what is widely known as the movement for global social and environmental justice. This book draws on the links, projects, influences and connections between groups throughout the world who make up these movements. The connections are unpredictable and fast changing, but they allow a huge amount of ideas and experiences to be exchanged around the globe. These movements are diverse and are not looking to build global federations or leaderships. That would repeat the mistakes of the past and the present. But there are some common principles which most would agree with: a rejection of borders and nation states, along with wars, exploitation and injustice; reducing over-consumption and the imbalance in the distribution of the world's resources; working towards societies that uphold the dignity of all and the inclusion of everybody; and the promotion of equality and action in everyday life to take back control.

Why do people get involved in such ideas? Often what motivates us are emotional responses – anger, fear, passion, desperation and hope. We all have a right to be angry at injustice, at oppression. Building movements and groups of change is about using this anger constructively. Not falling into traps of hate, powerlessness, blame and desperation but turning those emotions into ones of defiance and strength, hope and inspiration and to intelligent rage.

This book is an advocate for fundamental change, not for seizing power but challenging the way power operates and is linked to wealth and private power in our society. The past has shown us that often seizing power has meant replicating the very systems of oppression that revolutionary movements have struggled to

overthrow. In creating fundamental change we need to use a range of methods and tactics and in this our imaginations are our only limitations. There's no simple cause and effect – thinking that if I do this, then that will happen. Many people carry a heavy burden of expectation, waiting for the 'big day' or the 'revolution' after which everything will be alright. The reality is much slower and unpredictable, there's no straight path to where we want to go, change means constantly evolving, questioning and exploring.

On an everyday level there will always be contradictions and compromises. We might feel alienated by consumerism and work but we seem to have little choice but still be a part of them. Often our lives straddle the real world where we live and work and the ones we dream about and see occasional glimpses of. Of course sometimes it's necessary that we get formal employment, take a flight, buy corporate goods, compromise our ideals. Other times there's scope to be more independent, confrontational and defiant. Asking people to choose between these positions is divisive and unhelpful. Doing something is better than doing nothing at all. Collective organising will not get rid of inequalities overnight or change some of the most destructive things about this world but there are concrete steps that we can all take on the path to moving towards our hopes and visions and to claiming some control over our lives. The experiences reflected in this book show that people are chipping away at the present and building new worlds from inside and outside. The ways of organising our lives, which we look at in this book, can help us realise our potential, create new bonds and offer new answers, and it is there that the potential lies.

competing voices for change

> Brian: Excuse me. Are you the Judean People's Front?
> Reg: Fuck off! We're the People's Front of Judea.
> (Monty Python's *Life of Brian*, 1979)

The arena of struggle for social change is jam packed with competing groups – all with different versions of how the world could be, and how we could get there. A little like the caricatures of Monty Python's 'Life of Brian', there are divisions, suspicion and distrust between those on the left. There is often little that unifies them with groups only coming together when there is a common enemy such as a meeting of the G8 or anti-war protests. It is certainly true that socialists, communists, Trotskyists, anarchists, ecologists, or libertarians all differ in terms of tactics and ideas as to where power lies, who is to blame, what is to be done, and how it can be

done – creating a massive range of responses and groups. The Social Forum meetings and the autonomous decentralised events occurring alongside, the People's Global Action meetings and the many other global gatherings and seminars that take place regularly, have become places for a multitude of voices and responses to meet and exchange ideas.

One of the biggest divisions is between what are sometimes called 'verticals' and 'horizontals'. Verticals usually refer to large and centralising socialist party politics, with a clear leadership or vanguard who aim to mimic and ultimately seek government as a vehicle to achieve emancipation for the masses. They seek to incorporate all 'left' protest movements into their party political model and act as 'the' voice of resistance. Verticals see horizontals as naïve and poorly organised and have often sought to take over their campaigns and take glory for their successes.

Horizontals suggest embedding change in everyday life by rejecting leaders, hierarchy, authority, centralisation and manifestos. Within horizontal politics there is no real desire to take the reigns of state power for fear of repeating its mistakes and taking on its violent tendencies. However, rejecting leaders and clear organisational structures can mean that groups become scattered, and virtually hidden from the public at large. One of the easy criticisms aimed at horizontals is that without leaders and significant organisational structures little can be achieved to really tackle power imbalances. The public and the media often look for them and when found lacking cry that horizontal movements are disorganised and powerless. But this type of coherence is not what many groups aspire to. They prioritise the process – real or direct democracy – more than the end. It is a process which is always in the making. It does and should look messy and unfinished. This rough and readiness is a central part of the politics of horizontality. It is a choice that nobody can represent you. Behind these caricatures, there are actually many shades of grey on both sides, with a history of groups often pragmatically working together on campaigns, publications and meetings.

Those also committed to self-organising must respond to models of left-wing leadership which do offer tangible results. Latin America has a history of popular leaders from Cuba, Nicaragua, Venezuela, Chile and now Bolivia where traditional people power, left-wing movements and military might have brought significant improvements to ordinary people. They have become an exciting cause célèbre for those looking for answers due to their stand against neoliberal policies and the geopolitical ambitions of the United States. In our excitement we shouldn't embrace them uncritically but see what lessons they have for us to manage our own lives. In the last instance we can't rely on military men for our freedoms unless they are prepared to hand over real power to ordinary people.

Additionally, the messages from both established left groups and more horizontal libertarian groups face tough competition from more right-wing and populist groups who advocate self-management in an attempt to take back some kind of control. Both nationalist groups like the British National Party (BNP) and fundamentalist religious groups (both Islamic and Christian) spring to mind. This book does not advocate for such groups. It is important to reclaim a vocabulary of self-management and autonomy from organisations that look inward and seek to control people, lands and resources through violence, dogma and fixed notions of who is in and out, or good and evil, rather than allowing people to govern themselves in free, open societies.

inspirations and struggles

These ideas haven't been plucked out of the air but are part of vibrant, interconnected and often contradictory movements based on rich veins of thought including Marxism, anarchism, syndicalism, socialism, Zapatismo, ecology and anti-capitalism to name a few. History gives us many inspirations: the Diggers, who established a land-based community during the English civil war, the Paris Commune in the French revolution of 1871, intentional land-based communities formed in response to the excesses of industrialism, self-organised militias during the Spanish civil war, students on the barricades in May 1968. Latin America has always stood as an inspiration for those struggling against oppression, and in its attempts to stand up against US geopolitics from Allende in Chile and the Sandinistas in Nicaragua. The *piquetero* and unemployed movements in Argentina and the Zapatista autonomous municipalities in the Chiapas state of Mexico are some of the most inspirational examples of how resistance and creativity in Latin America is developing.

There are other more contemporary examples across Europe, such as squatting movements, housing co-operatives, rural and urban sustainable living projects, and radical art and social centres, info shops and bookstores, traveller and free party scenes. We have also seen a growth of strands of 'anti-capitalists', 'anti-globalisers' and the 'global social justice movement' which have now entered into the language of the mainstream media. These clumsy labels at least refer to a growing awareness that people are opposing a broader system of inequality which has a long history. Horizontal networks such as People's Global Action, Reclaim the Streets, Earth First! Permaculture networks, Free Schools, and No Borders groups have spread across the world, campaigning and taking action for radical social change that is based on freedom, co-operation, justice and solidarity and against environmental degradation, neoliberal exploitation, racism, homophobia and patriarchy. New forms of media

and the internet have permitted these struggles to become global and the Indymedia concept has spread around the world. Francis Fukuyama's proclaimed 'end of history' thesis declaring the triumph of market capitalism after the fall of the communist bloc now seems rather premature.

The Trapese Collective formed in the run up to the mobilisation against the 2005 Group of 8 summit, as part of the Dissent! network. We undertook popular education workshops to engage with a wide range of people about the problems highlighted by the G8, and more importantly the workable alternatives which we felt were hidden from view. We had been involved in self-managed social centres, intentional communities aiming for sustainability, solidarity with groups like the Zapatistas, direct action against roads, the anti-war movement, climate change campaigning, Social Forums, independent media projects and community gardens. The aim of our work is to engage people in a debate where we all question our assumptions and look at how we can organise and respond. We see this book as part of the laying down of collective achievements, histories and inspirations of autonomous, horizontal politics, and a reflection of how to move forward.

what's in the book?

The eighteen chapters that follow weave together analysis, personal stories and examples of various everyday movements for change. The idea is not to dictate how things should be done but provide examples of places, ideas, ways of organising and inventions for you to do it yourself. This is not a comprehensive guide. Issues such as transport, alternative economies and housing, for example, could have been covered but due to space constraints are not. Neither was there room to do justice to the complex ways that class, race, gender, class, spirituality, religion or sexuality interact with what we are saying. Although as individuals we have been influenced from many places and peoples, this book is unashamedly focused on what we have found in parts of the world where we have lived. To analyse the global South, especially Africa and Asia, is a mammoth task and was outside our capabilities and experiences. What we have done instead is to focus on where we are best connected and knowledgeable, and leave it to others to do similar kinds of work elsewhere. We wanted to show that there are inspirational examples on everyone's doorstep and it's not necessary to travel the world to find them.

For each theme of the book there are two distinct chapters: one which introduces the theme, its histories, ideas, problems and pitfalls, and a more practical 'how to' guide consisting of ways to turn some of these ideas into reality. These guides are

not the last word on the subject, but represent a commitment from people to tell it as they have lived it. Depending on your personal experiences, some things may seem obvious, others less so. We hope you try them collectively, use them to put your version of the future into practice, connect with other people who are doing similar things, or come up with adaptations or improvements. Sources for further reading and research are given at the end of each theme. It is impossible to measure how these ideas may penetrate and travel. For some people they will ignite a spark, others may dismiss them. In any case, the book is a call to action and reflection. It outlines interventions which grow more urgent day by day in face of the crises that loom ahead. A handbook isn't enough to take back control but it's a starting point to get involved with people, networks and movements of resistance, inspiring creativity and changing our world.

resources

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1 why we need holistic solutions for a world in crisis

Andy Goldring

The premise of this chapter is that our world is facing massive ecological crises, as well as the potentially disastrous social and economic problems that stem from this. In understanding how we can change our world it is important to outline some of the enormous problems it faces and every species that inhabits it. The point of this chapter is not to feel overwhelmed by the extent of the problems, but to examine existing, easy to implement and inspiring approaches that we can use to both improve the environment and the lives we lead, looking at the holistic approach of permaculture in particular as a mechanism in creating change. Sustainable living is more than just a nice life for those that attempt it. It also offers a vision of a better world, and a daily, practical protest against the cultural, corporate and state structures that lay waste to the world.

## the ecological crisis and how we got here

That we are living within a rapidly escalating ecological, social, political, and economic crisis, is beyond doubt. This has been outlined rigorously over the last few decades in reports like *The Limits to Growth* (1972), *Our Common Future* (better known as the *Brundtland Report*) (1987) or landmark books like Fritz Schumacher's *Small is Beautiful* (1973), as well as the WorldWatch Institute's annual *State of the World* report (www.worldwatch.org). How we came to be in this situation is less certain. A summary of my view, informed by fifteen years of practice working with the Permaculture Association is this. From its earliest beginnings, humankind lived in relative harmony with nature, ruled by its laws, in tune with the seasons and with minimal disruption to the overall ecological system. At the end of the last ice age, climatic conditions changed and productivity increased, and humans in the Middle East, East Africa and China moved from gathering and hunting in small groups

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to settled agriculture. Impacts were huge and many writers of social and human ecology such as Murray Bookchin, John Zerzan and Michael Sahlins see this as the origins of our present civilisation and its trappings such as hierarchy, division of labour, oppression, trading and specialisation, more complex social organisation, and the first cities. Ultimately these civilisations were unable to manage their resource base and failed. Reasons included soil and tree loss, the collapse of agriculture, war with competing civilisations or an inability to change inappropriate social and environmental practices. These ideas have been eloquently outlined by Jared Diamond in a number of books such as *Guns Germs and Steel* (1997) and *Collapse* (2005).

The 'Medieval Warm Period', alongside new inventions from China, such as the horse chest harness, in the tenth to fourteenth centuries enabled increases in European agricultural yields and the rapid expansion of larger human settlements. Other Chinese inventions such as gunpowder, paper, printing and the compass also had a transformative effect on medieval society. The combination of increased agricultural yields and new inventions enabled small European kingdoms to form the first nation states. Environmental and social limits were overcome through colonial expansion into new lands. The use of millions of mainly African slaves during the seventeenth century allowed companies to exploit the new lands and set up vast trading empires. During the seventeenth and eighteenth centuries inventor-scientists started to harness the power of water in new ways, with a major leap in industrial capacity occurring when the power of coal was harnessed to create steam engines. The Industrial Revolution had begun, and ushered in a new scale of environmental and social change. Companies flourished and became huge enterprises. The 'enlightenment' and other philosophical movements decided that humans were above nature and therefore it was ours to exploit as we saw fit. In the nineteenth century, we discovered a seemingly limitless supply of easily transportable explosive energy in the form of oil. Human population levels soared and a considerable middle class emerged with aspirations for comfort and a huge appetite for consumer goods (see classic works such as E.P. Thompson's *The Making of the English Working Class* (1968). World wars, the worldwide industrialisation of farming through the petrochemical-based 'green revolution', the 'triumph of capitalism' across the globe backed by new forms of international financial institutions like the World Bank and IMF, and mass media-based propaganda completed our divorce from nature and left most humans reeling from the effects of over consumption or a life of poverty. There are many excellent commentaries which outline these changes and are included in the resources listed in Chapter 2.

At the beginning of the twenty-first century we face a huge list of interconnected challenges. Here are just a few of them:

- Climate change: The burning of coal, oil and gas, and the clearance of forest for agriculture is changing the climate through the 'greenhouse effect' and may soon reach a 'tipping point' beyond which humans can have no influence. There is now widespread agreement that climate change is the most urgent challenge facing the planet. The Stern report of 2006, written by former World Bank Chief Economist Nicholas Stern, suggests that there is now a 50 per cent chance of temperatures increasing by 5 °C, with catastrophic consequences for every species on the planet.

- Peak oil: A term popularised by scientist M. King Hubbert who, while working for the US Geological Survey, suggested that the world's supply of available oil would peak between 1990–2000. He got the date slightly wrong, but there is now wide consensus that we are within a few years of 'Hubbert's' peak, with gas peak following 15–20 years behind (Heinberg 2005). As a result of this peak the energy foundations of industrial society are dwindling. 'Alternatives like biofuels, ethanol or biomass can play a marginal supportive role but nowhere near on the scale required. When the oil runs out the economic and social dislocation will be unprecedented' (Michael Meacher, former UK Environment Minister, quoted in www.peakoil.net).

- Water: Water shortages and drought are becoming more prevalent, with many ancient aquifers that take thousands of years to recharge, near full depletion. 'Global freshwater use tripled during the second half of the twentieth century as population more than doubled and as technological advances let farmers and other water users pump groundwater from greater depths and harness river water with more and larger dams. As global demand soars, pressures on the world's water resources are straining aquatic systems worldwide. Rivers are running dry, lakes are disappearing, and water tables are dropping' (Elizabeth Mygatt, 26 July 2006, 'World's water resources face mounting pressure', Earth Policy Institute website). It is clear that water will be a key resource and a source of war and conflict in years to come.

- Industrial agriculture: Industrial farming has caused the destruction of whole ecosystems, made many species extinct and laid ruin once highly productive agricultural land. One recent example is our new demand for biofuel, which is leading to the widespread destruction of Indonesian rainforest and peatland to make way for huge monocultures of oil palm, all under the guise of an 'eco-solution'.

- Ocean ecosystems: Chemical agriculture, unprocessed sewerage and industrial fishing have created 'dead zones' covering hundreds of thousands of square
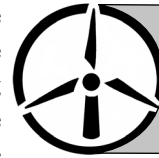
kilometres of ocean. The majority of fish stocks are in decline. Global fish stocks could be almost eliminated within 50 years if current trends continue.

- Soils: Soils have been depleted of minerals leading to poor food quality, increased disease and fire susceptibility. Poor soils and diminishing water supplies are contributing to famines that now ravage many regions and are set to worsen with climate change.
- Environmental refugees: The number of environmental refugees is mushrooming as people desperately try to escape from areas no longer able to meet their basic human needs. The New Economics Foundation estimate that by 2050 there will be over 150 million environmental refugees unless pre-emptive action is taken. There are many underlying causes to this refugee crisis which go beyond short-term droughts: people are forced from their lands by wars often fuelled and funded by ex-colonial masters in the West, the expansion of cash crops continues to deprive people of land and force movements, and the effects of climate change such as long-term drought, flooding or extreme weather events is increasing mass movements of people.
- Ownership: Corporate control of key resources and utilities, such as seeds and water, undermine local efforts for self-reliance, and fuels the growing gap between rich and poor, both nationally and globally. The profits of Royal Dutch Shell now equal the GDP of Egypt (*Guardian*, 7 November 2006). George Monbiot in *Captive State* (2000), John Pilger in *The New Rulers of the World* (2002) and Naiomi Klein in *No Logo* outlined the powerful role corporations play in shaping our lives.
- Culture and society: Our societies are largely based on a dysfunctional cultural model which is difficult to comprehend as it is so all-encompassing. Some of its premises include: endless economic growth, the primacy of profit and growth and the need for production and hence consumption, global trade and a wage economy which fosters individualism and competition, the nuclear family and all its trappings of suburban and out of town developments, and an education system that largely trains people for participation in narrow work tasks. This leaves us largely divorced from nature and each other, at the whim of corporations, neglectful states and global institutions, and a media system in the hands of dull, powerful companies that obscures rather than illuminates.

Struggling for sustainability

Given the enormity of the problems that are faced, many people are going to ask the question 'Is there any hope?' Is it possible to fundamentally change the economic/

industrial/military system? Can we move from a society based on the pursuit of power, profit and consumption to a society that has the well-being of society and the environment at its core? Can this be done at a global level? Is it fair to curb the Western style 'development' in other parts of the world, especially Africa and Asia? These are difficult questions to answer, but in my opinion, yes there is hope. All the ideas, techniques, technologies and cultural models we need to transform the world and steward the environment for the better exist already. They have developed throughout history and can be seen through several currents.
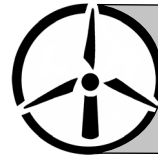
Firstly, there are the sustainable practices of human scale societies. These groups, generally numbering less than 300, meet the majority of their needs from within their own region. Human scale societies – both nomadic tribes and settled villages – were more prevalent in the pre-industrial world and made up the majority of the human population until just a few hundred years ago. They worked less than we do, met their needs without destroying their environment and had no need for standing armies or police forces. Their whole way of life was tuned to the local environment, each generation, from children to elders, had a role to play and everyone contributed to the well-being of the whole group. Strong group identity, strict taboos and an appreciation of the 'web of life' ensured that their way of life was sustained over hundreds of generations. However, we must also be careful not to over-romanticise such human scale societies as some kind of ideal template – no doubt they faced a different set of problems, such as food shortages, occasional outbursts of bloody conflict, more reliance on manual labour, none of the comforts that mark out consumer-based societies, nor the ease of mobility that we enjoy.

Having said that there is much which our profoundly industrialised societies can learn about regaining a sense of simplicity, social integration, and cultural approaches to living within natural limits, autonomy and self-reliance. In her book *Ancient Futures* (1992) Helena Norberg-Hodge outlines how a planned process of development since the 1970s based around military expansion, tourism and resource use has undermined such human scale communities in Ladakh northern India. Here, the Ladakh Project has been set up with the aim of what it calls 'counter-development' to re-establish the viability of these human scale communities connected to the rhythms of nature and regional trade and agriculture. Strong tendencies towards these types of human scale communities clearly still exist into the present, seen through this example and moves towards ecovillages, co-housing developments and intentional communities. The interesting question that arises, and what this and other chapters address, is how do we create the conditions to make these kinds of communities more viable on a wider level?

Secondly, there are groups that have rebelled against the ideas and power structures of the time, or developed new ideas that are then adopted by society at large. Even thousands of years ago, Socrates observed environmental destruction and called for the widespread reforestation of Greece. In the seventeenth century, the Diggers struggled to create a more democratic and fair society, and show that freedom from poverty, hunger and oppression could be won if the earth were made a 'Common Treasury for all'. In the nineteenth century, the Luddites rebelled against the new machines of the Industrial Revolution but were quickly quashed by the state and the 'march of progress' (see Christopher Hill's *The World Turned upside Down* (1972) or Kirkpatrick Sale's *Rebels against the future* (1995)). By the twentieth century, the problems had become bigger, but so had the movements that sought a better way. The science of ecology led to a new appreciation of nature, organic agriculture re-emerged, natural farming was pioneered by people like Masanobu Fukuoka and Wes Jackson, and the self-sufficiency/back to the land movement was championed by John Seymour and others. Rachel Carson and her seminal work *Silent Spring* (1963) provoked a new interest in caring for the earth and an ecological movement based around membership groups like the Sierra Club, Greenpeace and Friends of the Earth, as well as direct action groups such as Earth First! emerged.

permaculture as an holistic solution

Permaculture is revolution disguised as organic gardening. (Mike Feingold, community activist and designer)

Whilst many techniques and technologies for solving specific parts of our multifaceted problem exist, there are very few integrated or 'holistic' approaches that aim to tackle the problem as a whole. One such integrated approach is permaculture. The term was coined by two Australians, Bill Mollison and David Holmgren, to describe an ecological design approach to sustainability, and has been spreading across the world since the late 1970s:

Permaculture is the conscious design and maintenance of agriculturally productive ecosystems which have the diversity, stability, and resilience of natural ecosystems. It is the harmonious integration of landscape and people providing their food, energy, shelter, and other material and non-material needs in a sustainable way. (Bill Mollison 1997, ix)

Permaculture has three main ingredients:

1. Ethics

   • People care: People care is about looking after yourself and the people around you and ensuring that your actions don't harm other people you don't see, such as when you buy food produced by workers on low wages using health damaging chemicals. It is also about considering our legacy and working to make the world better for future generations.

   • Earth care: Opposition to further ecosystem destruction, rehabilitation of damaged land and a commitment to meet our needs on the smallest amount of land possible, so that we can leave space for all other species.

   • Fair shares: This stresses the redistribution of skills, resources and money to enable more earth care and people care. It is also about limiting our consumption to that which the earth can sustain.

2. Ecological and attitudinal principles
   Key principles include: direct observation of natural systems and an increased understanding of how they work; relative location because creating beneficial functional relationships between different elements within a system is vital; the support of important functions by many elements to ensure diversity and resilience; the provision of many functions by each element (for example a shed becomes a water harvesting surface).

3. Design

   Permaculture provides a new design language for observation and action that empowers people to co-design homes, neighborhoods, and communities full of truly abundant food, energy, habitat, water, income ... and yields enough to share. (Keith Johnson, editor/writer *Permaculture Activist*).

   Design is where we put our ethics and guiding principles into practice. Design is a 'pattern', a 'plan of action' that enables you to make better use of your existing resources through improved placement and new relationships, and helps you develop new ways to meet your needs. The great thing about permaculture is that you can start wherever you are, whatever your situation. If you are in a high-rise block, or a 1000 hectare farm, you can design the environment around you to become more sustainable and productive, and less polluting. You could start, for example, by growing food on your windowsill.

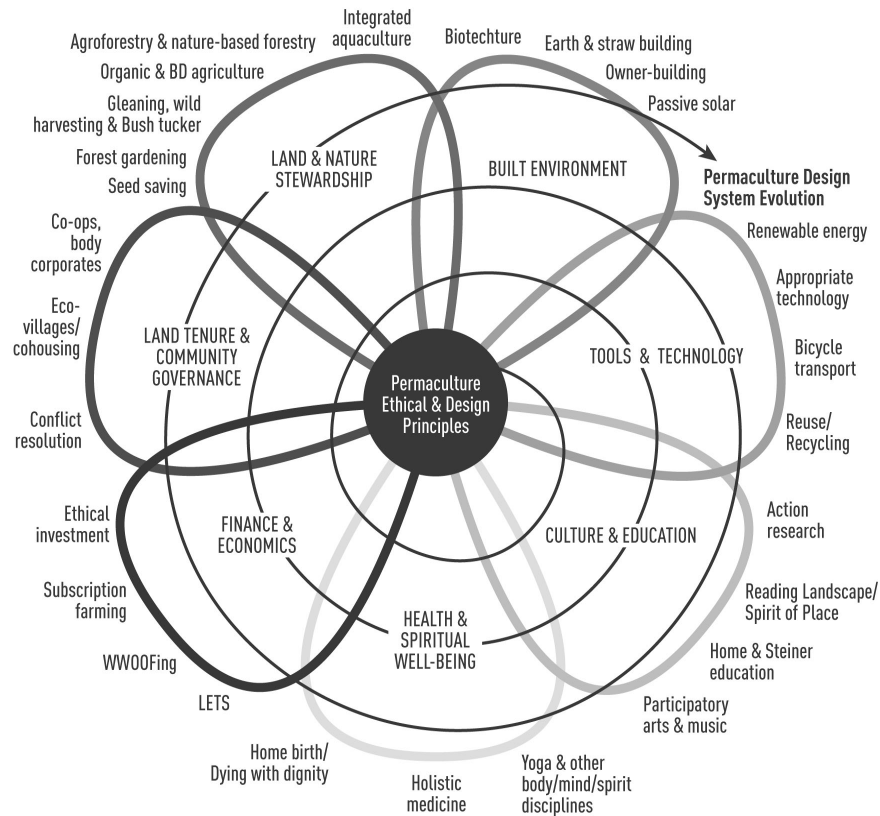The Permaculture Flower in Figure 1.1 highlights these features.

Integrated aquaculture
Agroforestry & nature-based forestry   Biotechture   Earth & straw building
Organic & BD agriculture   Owner-building
Gleaning, wild harvesting & Bush tucker   Passive solar
Forest gardening
Seed saving   LAND & NATURE STEWARDSHIP   BUILT ENVIRONMENT   **Permaculture Design System Evolution**
Co-ops, body corporates   Renewable energy
Eco-villages/ cohousing   Appropriate technology
LAND TENURE & COMMUNITY GOVERNANCE   TOOLS & TECHNOLOGY   Bicycle transport
Permaculture Ethical & Design Principles
Conflict resolution   Reuse/ Recycling
Ethical investment   FINANCE & ECONOMICS   CULTURE & EDUCATION   Action research
Subscription farming   Reading Landscape/ Spirit of Place
HEALTH & SPIRITUAL WELL-BEING   Home & Steiner education
WWOOFing   Participatory arts & music
LETS
Home birth/ Dying with dignity   Holistic medicine   Yoga & other body/mind/spirit disciplines

Figure 1.1   The permaculture flower

Source: David Holmgren.

Characteristics of permaculture systems

Whilst every permaculture design is unique – tailored to the specific landform, climate, and requirements of the site and its inhabitants – all designs share some common characteristics:

- Localisation. As oil and gas become less abundant and more expensive, we will need to meet our needs locally. When apples are flown from New Zealand to the UK they create up to 120 times more pollution than apples grown in the UK. So whether it is because we want to stop climate change or prepare for peak oil,

create local livelihoods or just enjoy the fruits of a productive healthy landscape, we need to localise the systems that meet our needs.

- Self reliance. Permaculture is not about self-sufficiency. I can't knit jumpers, but I'm happy to exchange the things I'm good at with others. Do what you can, co-operate with others and aim for a largely self-sufficient region.

- Decreasing the need for external inputs of energy and resources. Through the application of permaculture design and the development of local self-reliance, we reduce the amount that needs to be imported to meet our basic needs. By farming without chemicals, recycling resources locally, changing our eating habits, and celebrating and supporting local creativity we move from dependency to interdependency.

- Use of renewable energy systems. Our first aim should be to reduce the amount of energy that we need to meet our basic needs. When this has been done we can move on to develop local energy systems to meet those modest needs. Long-term forestry, passive solar construction and solar water heating are priorities, with optimum electricity generation dependent on local circumstances.

- Design as an active and ongoing participatory process. It will take a long time to create a sustainable human society, and quite a long time to get our own house in order. There is always an opportunity to improve what we do, and support others to improve what they do. I know of nowhere that is finished and fully sustainable.
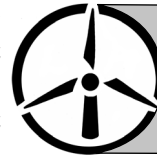
sustainability in action

So how do these ideas work out in reality? There are countless examples of permaculture in practice, from the tiny to the town-wide. Long-term 'Energy Descent Action Plans' are springing up in response to crises to manage the energy descent after the peaking of oil. Based on a model developed in Kinsale, Ireland, plans are now underway in the UK in Totnes, Devon and Lewes, Sussex (see www.transitionculture. org). Four case studies follow, from the everyday to emergency situations, which show how sustainability is being put into action simply and effectively in a range of settings to tackle key issues like energy, water, food and waste.

The Yellow House, UK. 'Turning our house into an low energy eco-home'
George Marshall, environmental campaigner and member of the Climate Outreach Information Network, reflects on turning his humble house in Oxford, UK, into an eco-home.

When Annie and I moved into our new home, 1930s ex-council terraced house in Oxford, it needed a lot of work. Our dream was to renovate the house so that it is energy efficient and respects the environment, but is also clean, healthy and full of natural light. We followed the usual advice – new insulation throughout, lagging hot water pipes, draughtproofing and a new condensing boiler. We found it cost very little to far exceed the recommended levels of insulation. In the new extension and loft conversion we doubled the level of insulation required by building controls for the cost of a few hundred pounds/euros/dollars more in materials.

We managed to save money by using salvaged materials everywhere – for joists, floors, sinks, stairs, and light fittings. We built the fitted kitchen from old furniture – a beautifully made solid oak kitchen for less cost than the cheapest chipboard kind. We installed many eco-features. We have a high quality solar hot water panel. The extension has a grass roof and a sun porch to preheat the air entering the house. The bath water is stored in a copper tank (a reuse of the old hot water tank) and runs the downstairs toilet. The upstairs bedroom operates as a sun trap, heating air which is then pumped downstairs by a thermostatically controlled fan. And all paints, floorings, and timber meet the highest environmental standards.

So we managed to add two new rooms to the house and still reduce gas, electricity and water consumption by nearly 60 per cent. This is the UK Government's target for 2050 and we achieved it within one year! It is clear that soon every house will have to do what we have done. But a house is only one part of one's overall emissions. We try to achieve a low carbon lifestyle in other respects. We eat only local free range meat and local organic vegetables, rarely buy something new, work within cycling distance of home and only use a car for rare and unavoidable purposes. Providing we can avoid flying, which is a massive way to cut your carbon use, we manage to keep our annual emissions under 2 tonnes of carbon dioxide per person, which is not far off the sustainable level. You can learn more about low carbon lifestyles and work out your emissions on the calculator at www.coinet. org.uk/motivation/challenge/measure.

The most important thing we have learned is that our house can be a model for inspiring others. We had so much interest that I wrote a website so that people could make a virtual tour of the house and learn from our experience and contacts. The site has had over 10,000 hits and we get visitors and letters every week. We

have also produced a CD-ROM which can be ordered through the site (www.theyellowhouse.org.uk).
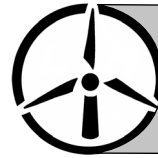
The HoriZone at the 2005 G8 summit: shit and social change
Starhawk, writer, activist, trainer and permaculture designer, writes about her experience working at the HoriZone protest camp when 3000 members of civil society gathered to protest during the G8 summit in Scotland 2005. There she developed regenerative design through compost toilets and grey water systems.

During a recent project at a large encampment, I was explaining one aspect of compost toilet maintenance to two young women. These particular toilets were basically a framework set up over wheelie-bins. The waste drop into the bins, sawdust is added after each deposit, and when it's full, the bins can be wheeled off, sealed, stored for two years, and the resulting compost is then safe to use on landscape plants and trees. It's one of many possible ways of dealing with human wastes.

'Often the "deposits" pile up in a sort of peak in the middle,' I said. "But if you reach in with a stick and push it around, you can get it to fill more evenly.'

The first young woman looked at me with a kind of horror in her eyes. "We can't even get the blokes to do the dishes," she said. "How are we going to get them to stir shit?"

I could have said, but didn't, that stirring shit up, on every level, is the basic work of anyone wanting social change.

'But it does make you think,' the second woman said. 'How privileged we are in our ordinary lives ... that we never have to think about where our waste goes or where our water goes.'

Watching that realization dawn in her eyes, I knew all the work we had done to make the camp happen was worth it.

The HoriZone ecovillage was an attempt to demonstrate, first to ourselves that we can deal with the real shit: providing for basic human needs in a way that respects and even regenerates the environment. Our directly democratic structure used at the camp was a way to also show that real work can be organized without bosses or hierarchy. Everyone participates in all aspects of the work. I carried loads of wood and drove a few screws into the compost toilets. Collective work for a big camp counters many of our societal myths about work: that hard work is demeaning, that people won't do it without pay, that work is something to be avoided, that unless people are strictly controlled, they'll be lazy shirkers. Work is a way to connect with other people, to feel part of something, and to gain respect

and recognition. Most importantly, it shows that we have the skills to manage our own lives and implement sustainable living right here and now.

Earthaven ecovillage, USA

This extract is taken from the Earthaven website (www.earthaven.org), one of the most inspiring ecovillage projects currently up and running, based in south-east USA.

Ecovillages are human-scale, full-featured settlements in which human activities are harmlessly integrated into the natural world in a way that is supportive of healthy human development, and which can be successfully continued into the indefinite future. (Robert and Diane Gilman, *Ecovillages and Sustainable Communities* 1991)

Imagine it's summer at Earthaven, an aspiring ecovillage settlement nestled in the forested slopes of the Southern Appalachians in the USA. Along with murmuring streams and birdsong, you hear the sounds of human activity, of people building their common future together, of children at play... You hear the sound of power tools and home construction, often with lumber from trees felled on the land. This is the sound of liberation. Using our own lumber and hiring each other to build our homes frees us from banks and the timber industry while keeping materials and money within our village economy. These are radical acts. We're learning to practice ecologically responsible forestry and agriculture; to develop natural building systems that sustain forest health, create jobs, and generate renewable energy through good design. We intend to become empowered, responsible, ecologically literate citizens, modeling bioregionally appropriate culture for our time and place.

Founded in 1994, Earthaven is located on 320 acres in culturally rich, biologically diverse western North Carolina, about 40 minutes southeast of Asheville. We are dedicated to caring for people and the Earth by learning and demonstrating a holistic, sustainable culture. Lying between 2000 and 2600 feet elevation, our forested mountain land consists of three converging valleys with abundant streams and springs, flood plains, bottom land, and steeper ridge slopes. We intend to become a village of at least 150 people on 56 homesites. As of 2004 Earthaven has 60 members, with 50 living on the land, including several young families with children. Our permaculture site plan includes residential neighborhoods and compact business sites, as well as areas suitable for orchards, market gardens, and wetlands.

Much of Earthaven is still under construction. Physical infrastructure so far includes roads, footpaths, bridges, campgrounds, ponds, constructed wetlands, the

first phase of our water system, off-grid power systems, gardens, our Council Hall, a kitchen-dining room, many small dwellings, and several homes. We govern ourselves with a consensus decision-making process and a Council and committee structure. We own title to our land, which we financed with private loans from members. Members pay their share of the cost of the land by leasing homesites from the community. We value sustainable ecological systems, permaculture design, elegant simplicity, right livelihood, and healthy social relations. We are spiritually diverse. We have both vegetarians and omnivores; some members raise livestock.

Our small ecologically sound businesses include Red Moon Herbs; *Permaculture Activist* and *Communities* magazines; the Trading Post, a general store and Internet cafe; a permaculture plant nursery; carpentry and home construction; tool-rental; solar system installation; plumbing and electrical installation; website design; candle-lanterns and other wooden craft items; and consultants and courses in permaculuture design, natural building, creating new ecovillages, herbal medicine, women's health, and women's mysteries. We teach workshops on starting and designing an ecovillage.
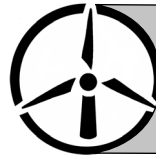
Models for the future: responding to emergency situations

Writer and activist Starhawk explains the importance of developing skills to respond to emergency situations such as those seen during Hurricane Katrina in 2005, which are likely to become more frequent in the face of climate change.

In mid 2005 Hurricane Katrina struck New Orleans, followed by Hurricane Rita which hit the Louisiana coast. The U.S. government's response to these disasters ranged from inept to criminally negligent. For example when the city authorities ordered the evacuation of New Orleans, they didn't provide any transport for those who didn't have private automobiles. In the refuge of last resort, the superdome, where people were told to go, medical staff, supplies, even food and water weren't properly provided. But where the government failed, people's movements stepped in. A group called *Common Ground* arose in the first days after the hurricane, spearheaded by a former Black Panther, Malik Rahim, who lives in the Algiers neighborhood of New Orleans which was spared flooding. They first organized neighborhood protection from vigilante groups which were roaming the streets, then went on to organize garbage pickup, distribution of relief supplies, and a free medical clinic which was the first to be running after the disaster, and which has now served thousands of local people, many of whom had no medical care

for decades before the disaster, because they couldn't afford it. The clinic has a warm, friendly and respectful tone, in contrast to those eventually set up by the military and the Federal Emergency Management Agency, which were surrounded by barbed wire and armed guards. Working with Common Ground, some of us are now working on bioremediation projects in New Orleans. We have set up one demonstration project to brew biologically active compost teas that can clean toxic soil, and have launched a training program and larger pilot project in connection with a local community garden. We're raising worms, brewing bioremediation teas, inoculating wood chips with beneficial fungi, and propagating plants that can uptake heavy metals.

If we want to transform the world, we need solid models of how to do it as well as a critique of what's wrong with it. If we want people to move away from the system they know and which has always provided for their needs, they must feel confident that a new system can provide for their security and survival. In New Orleans, where the official systems failed so badly, we have shown that the methods of organizing and the skills we have learned in social movements can indeed provide for those needs, and do so in a joyful, egalitarian, directly democratic way. Natural disasters will increase with global warming. The need for protest and the encampments that go with it will continue as long as injustice continues. But when we can also grasp the opportunities in these situations of disruption for new creation, when we can truly value all parts of ourselves and see even our wastes as a resource, we can tap powerful forces of change and transformation, that can help us regenerate both the human community and the soil, and bring healing and balance back into this world.

## facing up to the limits of sustainability

So what's stopping us? If the conceptual frameworks, the eco-technologies and the networks of activists are all there why haven't we turned it all around? At any one time a variety of factors make it hard for us to move forward, and it takes ingenuity to find routes around obstacles.

At a local level, when you're trying to do the right thing:

- Your local council may be obstructive, through planning constraints, local policies, or hidden agendas.
- You might feel isolated and unable to make a difference.

- You are trapped in a job, tied to the bank by a mortgage and too tired at night to think about anything else.
- You can't find land or buildings from which to develop new projects.
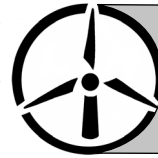
The most local and most serious problem occurs when you give up and don't think you can make a difference anymore. But all these limits can be overcome with persistence, clear thinking, talking to others, or turning the computer off, and then on again.

At a global level we come to more troublesome limits, as well as their potentials:

- Market forces make local production of food and many of our basic needs 'uneconomic'. However, this will change when oil shortages really kick in and render the globalised movement of goods 'uneconomic'.
- Desertification and the transformation of good quality agricultural land to poor marginal land. The development of increased water holding capacity through contour work and reseeding with hardy self-seeding plants and trees offers hope that this limit can be overcome.
- The costliness of expensive eco-technologies. However, there is usually a cheaper DIY approach, or a completely different, less technical solution.
- Disempowerment and mass hypnosis of the billion or so middle-class inhabitants of planet Earth. This group is destroying the Earth with its affluence, but has the financial resources to transform it. Every T-shirt you wear is an opportunity to get others thinking. Every 'action' and project is an opportunity to get others involved. Turn off the TV and encourage others to do so.
- Addiction. New cars, bigger lawnmowers, heroin, cannabis, TV, bigger this, bigger that, a couple of beers every night. Every time we kick an addiction, we notice another. It's good, it means we are evolving and becoming a better person. But to talk about society's addictions, to bear witness to our collective insanity, takes courage and collective action.
- Perceived lowering of living standards. Whilst American incomes have grown steadily since the 1950s, happiness has reduced. Remember the mantra, 'quality of life'. It's what everyone wants, what we all deserve, and comes about by travelling a path back to greater connection to nature.
- Legislation. Do we stop voting and do our own thing, or engage with others and change the framework within which everyone operates? A very tricky question.
- Lack of appropriate skills and education. Our children are still being taught about gravity or why the apple falls off the tree. A more thoughtful and

stimulating educational system would ask how it came to be on the tree in the first place. We need to turn state education systems on their heads. Our children really are our future, so we must ensure they are learning the skills they will need to create a sustainable one.

- Denial. We don't act for various reasons including the messages we receive from corporate funded sceptic-science which suggests everything is under control, being sidelined by greener forms of capitalism, and the psychological strength needed to accept the implications of what ecological crises means for us. None of us can be arrogant enough to think that we have all the answers. What can motivate us is how things can, and do, move quickly when the power of human attention becomes focused.

All these limits can be overcome with persistence, clear thinking, and a new sense of global co-operation.

the future

The current system is collapsing. But in the midst of this chaos, new shoots are emerging, new possibilities trembling and opportunities beckoning. We have seen a range of contexts for these possibilities, from your own house, to larger villages, camps and emergency situations. In my work I come across hundreds of groups and projects determined to do it all differently. They are improving their local environment, meeting a greater proportion of their needs and improving their quality of life. They are also helping to open up new pathways, making it easier for new people to get involved.

The skills of permaculture, natural regeneration, self-organisation and living within limits are easy to learn, simple to start and put into practice. They take persistence, a determination to break old habits, and yes, not everything works out the way we want, but each positive action links us to a new global family that has the interests of the Earth and all its beautiful inhabitants at its heart. We're not alone. Millions of people across the world are working to make things better. When you go to bed after a good day of rabble-rousing and Earth repair, others are just waking up, ready to put in another days effort. As Hazel Henderson suggested recently, the networks of people that are working for Earth and societal repair, linked by the internet, and a million small agreements to work together, are emerging to form the world's greatest, most important, new global superpower.

It's easy to get involved. Reducing your energy use through conservation measures and maybe even developing your own electricity supply means a reduction in bills, and a reduction in profits to corporate power companies. Car sharing or even better, giving up your car, means less outgoings, it means cycling, walking and taking more exercise, leading to an improvement in your own health, reduced local pollution and a friendlier neighbourhood. It makes it harder for General Motors to turn a profit. Growing your own organic food gets you outside gardening, puts you in touch with the soil and gives you valuable skills for when oil-based agriculture is no longer viable. If you can't grow your own, support local growers. Cargil and Nestle can't profit from the lettuce you sow in your window box, nor from seed you saved from the last crop. Localising production of electricity, food, fibres, biomass and the stuff of daily life means improving community well-being and developing a local economy that is better placed to survive the changes ahead. It means you take back control and responsibility for meeting your needs, which connects you powerfully to the rest of the people in your neighbourhood. Self-reliant well connected communities can resist government dictat. It also means producing less pollution and climate disrupting gases.
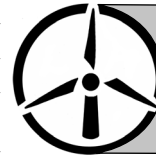
It doesn't really matter where you start. Follow your curiosity and passion, make it part of your life with practical action and steady learning. Celebrate your achievements and turn others on to the possibilities. There are thousands of organisations and groups to connect with, many simple practical steps you can make right now. There's not a moment to lose, it's more fun than TV, and infinitely better than putting up with business as usual.

Andy Goldring is a permaculture teacher, designer, member of Leeds Permaculture Network and co-ordinator of the Permaculture Association (Britain). Additional material supplied by Starhawk, US based writer, activist and ecologist, George Marshall from the Climate Outreach Information Network and from Earthhaven Ecovillage in the USA.

2 how to get off the grid

Bryce Gilroy-Scott

technology as transformation

Technology is much like the proverbial sword, it can be used to kill but it can also be used to bring life by furrowing the earth to plant a seed. The sword's use depends on the desires and values of its wielder. Appropriate technology is a type of technology aimed at improving the living conditions of those who use it. It is appropriate to communities so that community members can understand how to use, repair and recreate the technology. Appropriate technology is also economically appropriate; the people who depend on it can afford it. It is a form of active resistance to reclaim control of the technologies fundamental to our lives and the raising of our families. These technologies provide our food and shelter and allow us to heat our water and homes. They are essential to our survival.

But consider how you will fulfil your basic food, shelter and heat needs in the face of great changes outlined in the last chapter: cheap oil becoming scarce, migration increasing, climate chaos worsening, pollution and contamination escalating. Survival will become a much greater struggle. The last chapter looked at some of the crises we face and the ideas behind how we can respond. This chapter looks not only at appropriate technologies that can be a significant step towards creating a sustainable society but also at steps we can take in our lives and our homes, today, that move us towards disconnecting ourselves from the centralised grid and providing for ourselves and communities the things that we depend on. The chapter is divided into three sections focusing on energy, waste and water. Other issues such as food are dealt with elsewhere in the book. Reducing the amount of energy or water we use, doesn't necessarily mean a reduction in the standard of living – it means using our common sense, consuming responsibly, thinking about our actions and putting back into the earth what we take out. Not everything can be done over night and for people living in dense cities without access to gardens or land it can be difficult to see

what to do. But a lot can be done. For this reason, we include three 'Today' sections, of things you can do right now or in the weeks ahead after reading this book if you haven't already, and then we discuss some more ambitious, creative and fun projects you could take on if you have the space, resources and time. On their own the steps we can take today are not going to tackle the ecological crises we face, but they are important steps towards sustainable living and getting used to the coming energy descent.

Figure 2.1 below shows how some of these modifications, both simple and more challenging, from better insulation to a backyard solar shower, can become part of a typical home.

1) Flat-plate solar collectors for heating water

2) Roof insulation 30cm thick made of shredded surplus newspapers

3) Natural plasters - clay and lime based

4) Super-insulated hot water tank

5) Environmetally friendly paints

6) Triple- and double-glazed timber windows treated with natural fungicides and stains

7) Energy efficient appliances

8) Second hand, natural and reclaimed furniture

9) Rain harvesting system

10) Rainwater storage for use in WCs, washing machine and outside tap

11) Composting chamber for solid waste from WCs

12) Separator lets liquids drain off and solids into composting chamber
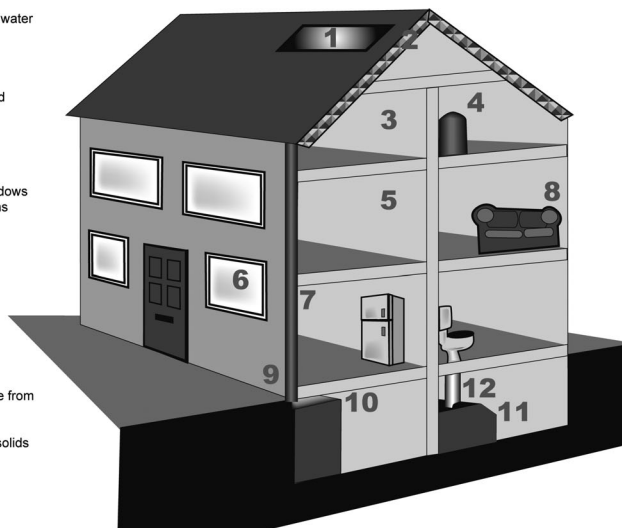
Figure 2.1   An eco-home

Source: The Trapese Collective. Adapted from Liquoricefish Design.

energy

The majority of us live outrageously energy intensive lives. While many things are necessary, by doing a personal energy audit we can all find things that we can do to cut our energy use, often dramatically. With almost one-third of emissions

due to the transport sector this is often where you can save most. This takes will, imagination and initiative but is an essential first step in becoming aware of our own ecological sustainability.

Box 2.1　Today...

Reduce the amount of energy you use: holiday near to home; get the train where possible instead of flying; cycle or use public transport instead of driving; invest in a bike trailer for shopping trips; use car pool or lift share schemes; set up a school walking bus; convert your car engine to biodiesel/vegetable oil; turn off the lights and appliances in any room you're not using; turn equipment off stand by; insulate your loft to 270 mm (12 ") thick; double glaze your windows and cut heat loss by 50 per cent or get good thick curtains; switch to a green energy supplier; change light bulbs for low energy ones; put on an extra jumper and keep your thermostat constant and as low as comfortable; check for window and door leaks and seal them up; install solar water heaters; super insulate your boiler or get a high-efficiency condensing one; get a wood burning stove to heat space and water; use well fitting lids on saucepans; only boil as much water as you need in the kettle; fit a jacket to your water tank that is at least 75mm (3 ") thick; insulate walls and cut energy loss by up to 33 per cent; wash laundry at 30 per cent and avoid tumble driers; draught proof skirtingboards; don't buy all that energy intensive stuff you don't really need!

Micro-generation: harnessing nature

Micro-generation is a way of reducing our reliance on natinal energy grids. Many people are experimenting with small, stand-alone systems that harness the power of the wind and the sun. While these won't be able to power energy intensive appliances such as irons and electric kettles for long, creative thinking about what's really necessary means that a household can run most of its needs from a much lower power input. There's not enough space here to go into detail, but here are a few pointers about one example – a small wind turbine.

Firstly, getting your own energy from wind power is attractive as it is free once your system is up and running and with a bit of help and research it is doable. Buying and installing your own wind turbine and batteries might cost anywhere from £1500/$3000 to £15,000/$30,000 depending on your power requirement. Micro hydro systems (small water turbines) are also becoming increasingly popular, they can be designed not to interfere with the flow or biodiversity of the stream and can produce significant amounts of energy. There are many detailed guides available that provide step-by-step instructions (see resource list at the end of this chapter) and a number of places that run courses on the making and installation of turbines. In urban areas wind and water turbines are often not appropriate although planning permission is beginning to be granted for tall buildings with wind turbines on the roof, such as the new London Climate Change Agency Palestra building, as well as many schools and hospitals which are installing turbines on playing fields and carparks. If micro-generation is not possible, there are other possibilities for example forming an energy co-operative like the Baywind Energy Co-operative.
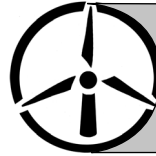
Box 2.2   Baywind Co-operative Ltd

Baywind Energy Co-operative Ltd was set up in 1996 in Cumbria, UK, to build community wind turbines on the lines of co-operative models successfully pioneered in Scandinavia. It is an Industrial and Provident Society where decisions are made collectively and voting rights are distributed equally amongst the members. The first two Baywind projects enabled a community in Cumbria to invest in local wind turbines. Baywind's aim is to promote the generation of renewable energy and energy conservation. Preference is shown for local investors, so that the community can share some of the economic benefits from their local wind farm. The wind represents an inexhaustible supply of ëfreeí energy and nobody actually owns the wind. Whoever owns the wind turbines receives the benefits from the sale of electricity that is produced. See www.baywind.co.uk. For more information on setting up community owned renewables projects see www.energy4all.co.uk.

Hayboxes: maintaining temperatures and storing food

It is very energy intensive to heat water and food, so once the energy has been used for heating it should be retained as long as possible. Using the same principle as a thermos flask, hayboxes are easy to make and a simple way to maintain temperature and significantly reduce cooking energy consumption. The box can be made of any material from cardboard to wood. Stronger and more durable materials will result in a better box. As with other simple technologies like solar cookers, the box is heavily insulated. Given the heavy insulation, when food is placed inside the box at temperature (for example, the pot of rice has reached boiling) the heat is retained and continues to cook the food. Remember that insulation maintains temperatures, hence it can also be used to keep its contents cold, so long as they are cold when placed inside.
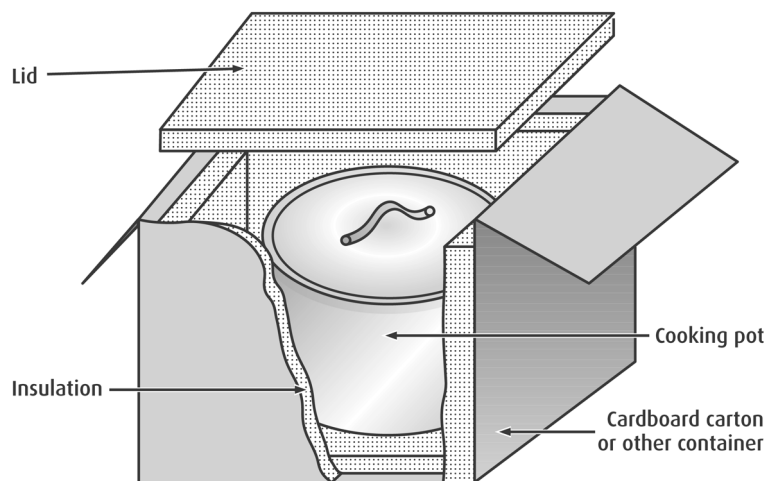

Figure 2.2   A haybox

Source: The Trapese Collective. Adapted from Sunseed Desert Technology. Available at www.sunseed.org.uk/otherUploadeddocs/hayboxesleafletMP02%28E%29_3.pdf.

Solar showers

While 'civilisation' will not stand or fall based on our access to a nice warm shower, hot showers can be one of the most effective applications of appropriate solar technology. This technology is surprisingly effective and even in cloudy temperate areas there is an unexpected amount of solar energy, even in northern latitudes. The design uses a simple insulated tray that heats in the same way as a bucket of water when left in the sun. By adjusting the amount of insulation, the water depth in the tray, the use

of reflectors and the proper sealing of the transparent cover – the heat capture can be maximised.

1. Make a rectangular frame out of wood (sheet metal, cement, cob or even just dig a hole in the ground).
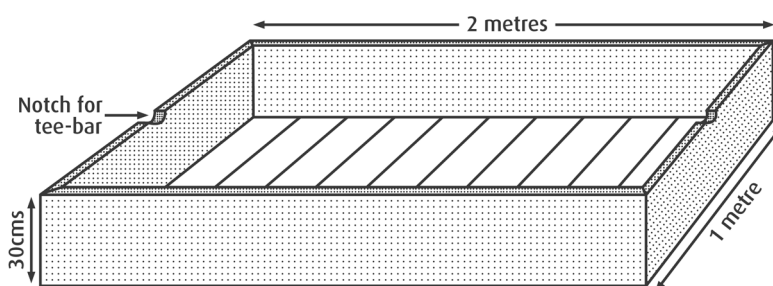

Figure 2.3 Solar shower 1

Source: The Trapese Collective. Adapted from Peace Corps Guatemala: A Guide to Appropriate Technology.

Dimensions: 2 m long; 1 m wide; 30 cm high. (These dimensions will hold 172 litres. A more shallow design will heat up quicker but will not retain the heat as long.)

If the water heater is to be used on the ground then no bottom will be necessary; otherwise use plywood or planks for the bottom.

2. Optional but recommended – a reflector. This will help the system capture solar heat. A piece of sheet metal or plywood painted white and mounted behind the water heater will reflect more heat into the water.

3. Fit the tray with insulation to a depth of 15 cm – dry leaves, wood shavings, sawdust, fibreglass polystyrene, etc.

Figure 2.4 Solar shower 2

Source: The Trapese Collective. Adapted from Peace Corps Guatemala: A Guide to Appropriate Technology.

4. The water container should ideally be black sheet metal. Black to absorb the full spectrum of solar radiation and metal because in direct sunlight the temperatures will be hot – plastic could melt. If metal is not available and plastic or a similar material is used, then the areas that are not covered by water need to have a flap of white plastic or tinfoil over them to reflect as much solar radiation away from the material to avoid meltdown.
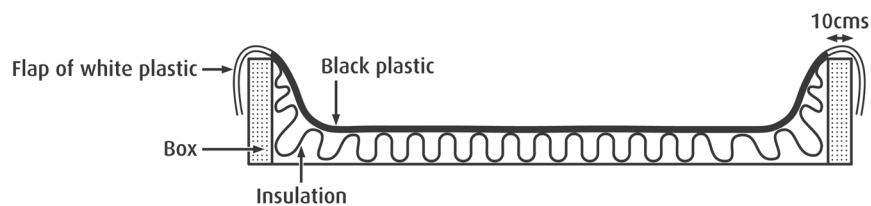

Figure 2.5   Solar shower 3

Source: The Trapese Collective. Adapted from Peace Corps Guatemala: A Guide to Appropriate Technology.

5. Fill the box to a depth of 10–12 cm of water. Then lay clear plastic over the top allowing it to float on the surface of the water to prevent evaporation. It is important that the clear plastic be loose enough to rise and fall with a changing water level.
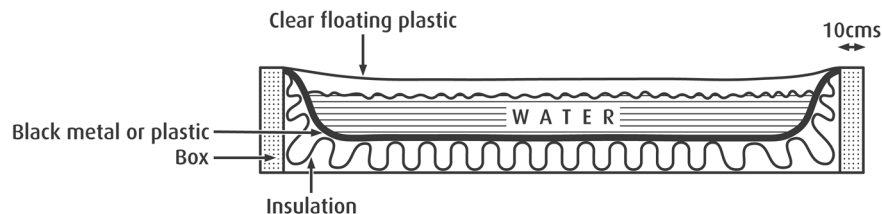

Figure 2.6   Solar shower 4

Source: The Trapese Collective. Adapted from Peace Corps Guatemala: A Guide to Appropriate Technology.

6. The final step is to fit a transparent lid on to the box. If the lid is made of glass, then glue pieces of non-absorbent materials along the top edges of the frame to cushion the glass. A glass lid will be surprisingly heavy whereas a plastic lid will be quite light.

For glass:

- Place two aligned notches along the top edge and in the middle of the top and bottom pieces of the tee-bar to support the glass panes.
- Make notches in the top edges of the wooden frame to support cross bars of 5 cm metal across the box to support the glass panes.
- Place the eight glass panes on to the supporting tee- and cross bar framework.
- Seal the glass panes in their frame with white plastic tape.

If glass is unavailable or a simpler system is preferred, then clear plastic or vinyl can be stretched tightly over a crosswork of string. Leave at least a 2 cm air gap for insulation between the floating plastic and the transparent lid. This air space serves as insulation.
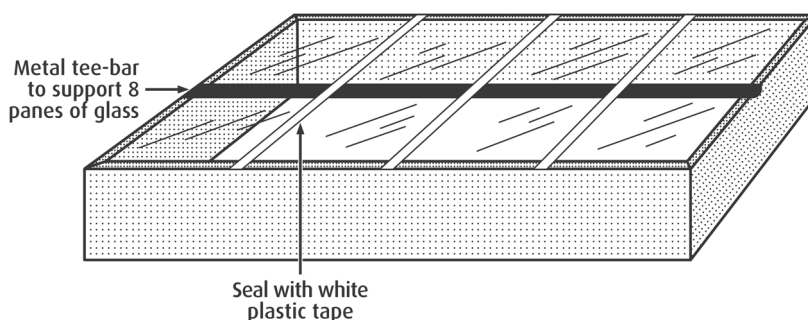

Metal tee-bar to support 8 panes of glass

Seal with white plastic tape

Figure 2.7   Solar shower 5

Source: The Trapese Collective. Adapted from Peace Corps Guatemala: A Guide to Appropriate Technology.

7. The whole box is then tilted slightly towards the sun for the best solar exposure and so that rain will run off and heated water can be collected from the lowest point.
8. To collect the hot water you can:
   (a) Scoop the hot water out with a bucket; or
   (b) Place the heater on top of a frame or roof and remove the water through a tube. You can either fit a metal tube (with gaskets) at the low end of the tank – you will need some way (like a valve) of shutting off the water flow when desired – OR if you want to use a plastic tube, make a notch in the top of the

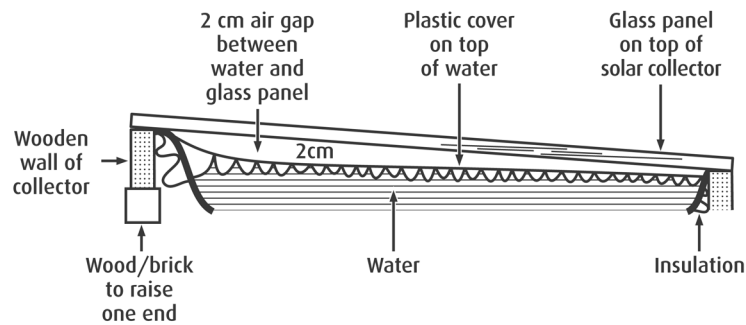wood for the tube to sit in. Siphoning water out at the low end of the tank may be easier if plastic is used.

Figure 2.8   Solar shower 6

Source: The Trapese Collective. Adapted from Peace Corps Guatemala: A Guide to Appropriate Technology.
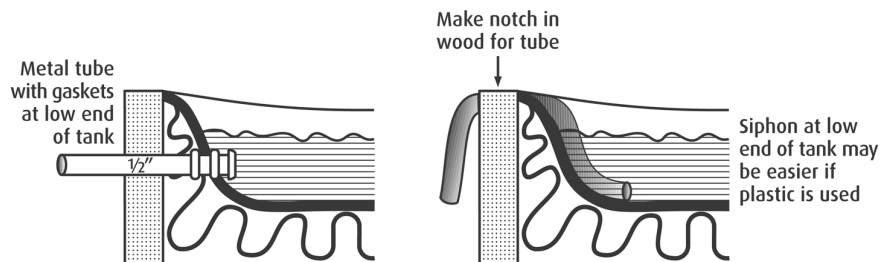

Figure 2.9   Solar shower 7

Source: The Trapese Collective. Adapted from Peace Corps Guatemala: A Guide to Appropriate Technology.

The metal or plastic tube is also used for refilling the tray.

9. A complete system.

• The solar heater may also be placed on a roof or stand above the shower stall; this will allow gravity to feed the water down to the shower.

• The tube that carries the hot water from the collector to the shower can have either a shower head or simply holes put into the tube end to create the 'shower' effect.

- For safety and maintenance reasons you should ideally have a valve (a component usually with a small lever or a screw that needs turning) that will shut off the water flow through the pipe.
- A valve on the hot water from the collector to the shower is advisable and, if you have a cold water feed, a garden hose from the mains connecting into the shower line.
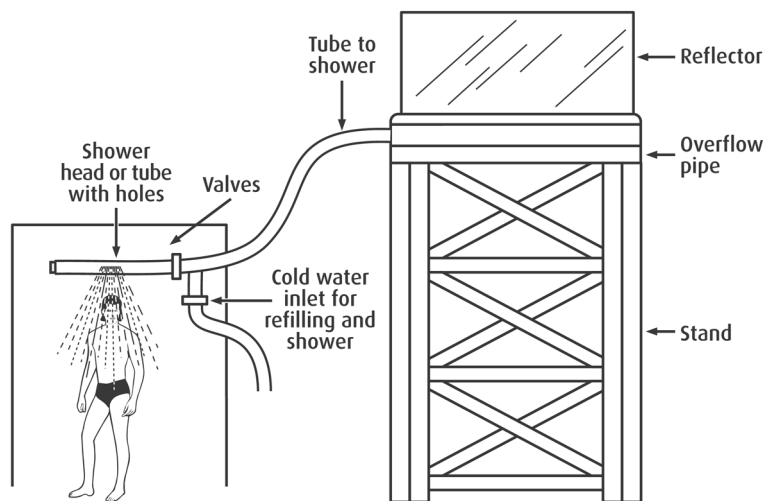- The cold water feed would also be used to refill the collector after hot water has been drawn off.
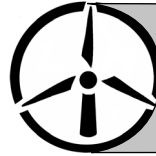
Figure 2.10   Solar shower 8

Source: The Trapese Collective. Adapted from Peace Corps Guatemala: A Guide to Appropriate Technology.

waste

The by-product of lives that are always on the go is our huge consumption of *products*. Many of the items we use on a daily basis are designed to be thrown away and the energy and resources that went into their making with them. We are rapidly approaching the point where landfills are full and the only option in some places is waste incineration which is energy and emissions intensive. It was recently stated

that every second, householders in England bin almost four tonnes of waste, and we are throwing out 3 per cent more each year (*Guardian*, July 2006).

Box 2.3 Today...

Reduce, reuse, recycle, compost (see Chapters 9 and 10): refuse products with packaging; only buy products with less or no packaging; buy and donate clothes and household goods to friends, neighbours or second-hand shops; join the local ëFree-cycleí network; use old clothes as drying up clothes; reuse paper in the printer; refill your printer cartridge; refuse junk mail; recycle and salvage building materials; use reusable nappies; get a reusable menstrual product such as Mooncup; take a thermos and a packed lunch; take your cup/bowl to the takeaway; share a car/printer with friends or neighbours; get a wormery; use natural dyes and paints; tell your school, workplace, local cafe, shops, etc. to get their waste in order.

Compost toilets

Composting of human faeces is as ancient as digging a hole to shit in the woods. Many cultures continue composting today because the energy embodied in the faeces is an important resource in the sustainable production of agriculture. Into the modern day in China, many cities remain ringed by an area of peri-urban agriculture where the 'night soil' (faeces) is brought out of the city each morning to begin its reintroduction into the food cycle (although this is sadly changing quickly in the face of China's massive development boom of the past decade).

Composting toilets are an essential strategy for sustainability. The modern Western home uses upwards of 100, 000 litres of fresh, drinkable water each year, just to flush the toilet. Composting toilets provide a solution that avoids using any water for flushing, does not produce sewage or contaminate ground water and saves nutrients in the faeces instead of 'putting them out to sea'. While this design below is a do-it-yourself model, there are much more modern and urban oriented designs available which include porcelain bowls and which can be designed within larger buildings in the city.

A composting toilet can be very hygienic and if properly operated does not smell. The most common model of compost toilet is designed with twin vaults. The vaults, usually made of brick or concrete, are used alternately. When one chamber is almost full, it is sealed off (a board bolted over the hole) and the other chamber is opened up. The first vault is left to compost while the other is in use. In temperate climates, usually a year is a sufficient length of time for good composting. The vaults are built with an access panel at the back so that the compost can be removed. The compost truly comes out looking like rich soil, with no odour or any other sign of the original material. Once the compost is removed the chamber is ready for another cycle and the vaults can be switched when appropriate.
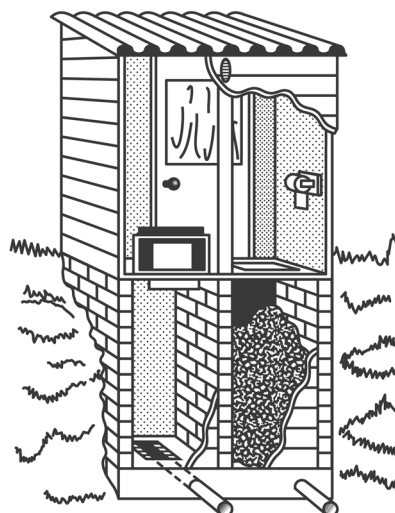
Figure 2.11   A two-chamber compost toilet

Source: The Trapese Collective. Adapted from Intermediate Technology Group. Available at http://practicalaction.org/ ?id=technical_briefs_water.

The key to a hygienic and smell free compost toilet is the addition of 'soak' material ensuring good ventilation. The microorganisms that do the composting work require the right balance of carbon and nitrogen in the environment to provide the elements they need to flourish. Since faeces and particularly urine (which inevitably ends up in the vault) is very nitrogen rich, it is essential to add carbon to the toilet after each use. There are a wide variety of soak materials – sawdust, leaves, dry cooking ashes, newspaper and straw can be used so long as they are rich in carbon – usually a handful of the material is sufficient. The soak material also helps to cover the faeces so that the flies are kept down and literally soaks up the excess liquid (from urine). While the finished compost should be human pathogen free, it is advisable never

to use it directly on food crop soil but instead to use the finished compost on fruit trees, berry bushes and the like. Urine can also be siphoned separately and used as a compost activator.

There are a number of considerations when designing your compost toilet.

Ventilation and flies   Composting requires oxygen and therefore some king of ventilation is essential. This issue has to be considered in context with the fly problem because any place where air can get in, so can flies. A good compost toilet will seal the vault with wire meshes for the ventilation pipe and seal under the toilet seat so that air can get in but flies cannot. Ideally, the toilet seat should have a tight seal (using glued foam and the like) so that no light or air enters the chamber and there should be a tightly screened ventilation hole in the back wall.

Urine   This can be a big problem if it puts too much liquid with high salt and nitrogen content into the vault. It is best to encourage people to urinate somewhere else. However, it is inevitable that urine will find its way into the vault and therefore in addition to the soak material a drainage pipe (see Figure 2.11) and a slightly inclined vault floor, encouraging the liquid to run out of the chamber, are ideal.

Another urine solution is the straw bale urinal. This urinal is a very simple construction and makes excellent compost for your garden in three to four months depending on use. It consists of a bale of straw for men and women to urinate on. Men wee standing; a seat is constructed for women made from two thick pieces of wood (or a couple of bricks) across the bale where a toilet seat can rest on. The liquid soaks in and composts the middle of the bale. Try to place the bale in a place protected by rain.

If you want to have a compost toilet, but also want to be able to wee in it, there are solutions. You can separate the urine from the solids at the source, which means you have a smaller size vault and less hassle with draining. You can make a simple one yourself from a curved sheet of aluminium attached to the toilet pedestal at the point where you pee sitting. There are also designs that enable porcelain bowl lovers to have a flush toilet inside, but at the same time compost their waste. They separate urine from solids behind your house, where you also have your composting chamber. Information on these designs are in the 'water and waste' resources section at the end of this chapter.

water
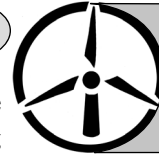
Global water use has doubled since 1960 and as climate change
looks set to have devastating impacts on our water cycles, creating
hotter and drier climates, it becomes even more important to
preserve this most precious of resources. Scarcity of clean water will also inevitably
lead to more conflict over access to this resource. All these themes are interlinked
– water is used in many industrial processes from making micro chips to printing
paper and decontaminating paint from sewage, so reducing energy and waste will
also impact on water use.

Box 2.4   Today...

*Instead of wasting 4ns litres of clean drinking water with every
toilet flush, which equals about 150 drink cans per day, take a
plastic bottle filled with water, put it in your toilet cistern to
displace the water volume it occupies (1.5 or 2 litres) ñ now every
time you flush you use only 2ñ3 litres; next time you have a shower,
save the water, use this to flush the toilet; water the garden with
old bath and shower water; store rainwater; brush teeth and shave
with the tap turned off; take a shower not a bath (and a quick
one at that); fix dripping taps; half fill the sink and use this water
to rinse dishes or wash fruit and vegetables rather than leaving
the tap running; install a rainwater collection barrel, use this for
watering the garden and even flushing the toilet; use natural cleaning
products and eco paints; avoid pouring out of date milk, juice or
food down the drain, saving energy in the sewage treatment process
and reducing the BOD (biological oxygen demand) for the breakdown
of these particles.*

Grey water system

Any water that has been used in the home, except water from toilets, is called grey
water. Dish, shower, sink, and laundry water comprise 50–80 per cent of residential
‘waste’ water. This may be reused for other purposes, especially landscape irrigation.

Although there are a number of commercially available grey water systems it is also possible to make one. The basic idea is to pass the grey water through a series of tanks in order to filter and clean the water so that it can be reused in the garden or go back into a river. It is important to use ecological and biodegradable soaps and washing-up liquids in a grey water system. See the resource section for more information.
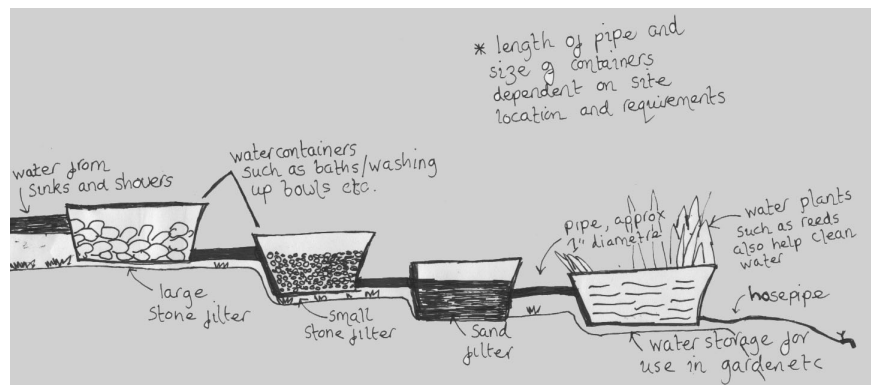

Figure 2.12   Grey water system

Source: Kim Bryan. Adapted from

Water filtering at home

While getting fresh water is very important (clean drinking water and basic sewage services prevent many diseases), having the technology to clean water is even more so. This technology can be very basic and relatively cheap to implement on a family or community scale. It can be useful in emergency or temporary situations. But be warned: the consequences of a poorly constructed or maintained filtering system can be very sick people – do your research first!

Filtering water through sand removes most and sometimes virtually all of the solid and organic impurities present in the water. The sand filtration systems described here are suitable for eliminating solids and biological organisms but they cannot cleanse water with chemical impurities or condition water for high or low pH levels.

The water passes from the top of a tank to the bottom with suspended particles being sieved out by the sand. A bio-film of microorganisms will naturally develop on top of the first few centimetres of sand grains that do much of the work to purify the water. A sand filtration system will not work properly without this bio-film. Wait a minimum of two days before using the water from the system.

The water level in the tank can be controlled automatically by a ball-cock that turns off the water flow; otherwise you need to fill the tank yourself. Usually there is 20–40 cm of standing water, followed by 50–150 cm of sand, provided that the sand grain size is between 0.15–0.3 mm in diameter. After the sand, 10–30 cm of pea gravel is set at the bottom of the container. If possible a permeable geo-textile layer such as a nylon curtain should separate the sand and gravel layers to prevent sand clogging the outlet pipe or other system components down the line. A slotted pipe or pipe with holes drilled in it takes the filtered water from the tank out to your water supply. Both the sand and gravel should be washed before installation into a sand filter to remove any remaining silt.
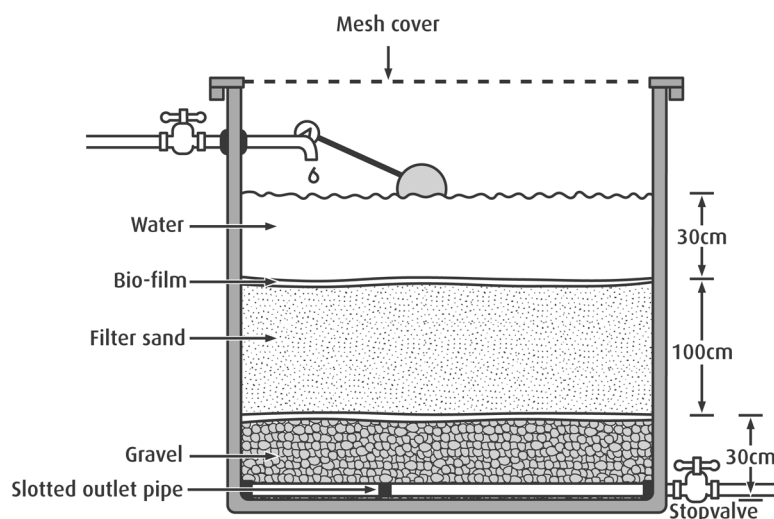
Figure 2.13   Slow sand filtration at home

Source: The Trapese Collective. Adapted from Thornton (2005). 'Slow Sand Filters Tipsheet'. *The Water Book.*

To provide good treatment the water flow should be no more than 100 litres of water per metre square of filtering sand per hour (100 L/m²/hr). The rate of water outflow can be controlled by the stop valve on the outlet pipe. To design a home system you need to record the litres of filtered quality water that you need each day and size your system accordingly.

Sand filters can be made of any kind of tank such as polyethylene, concrete or rendered block work. However the internal sides of the tank need to be very rough,

otherwise water will slide down the smooth sides and avoid filtration in the sand. The tank will need a cover to prevent bird droppings and leaves getting in. In temperate climates allowing UV penetration into the tank helps with the sterilisation process. In hot climates no light of any kind can be allowed, otherwise this encourages algae growth which is not desirable.

Like any other system, a slow sand filtration system requires maintenance: the system will need draining for cleaning every three to four months where the top 5 cm of sand is removed entirely or rinsed before being returned to the filter. If there is a frost risk, a tap must be kept running down line at all times so that water does not freeze inside the pipe.

prospects for the future

While the consuming classes in the 'developed' world are entertained by the latest mp3 players and pet-replicating robots, there are 1.3 billion human beings – roughly a quarter of all humanity – who do not have access to basic electrical services for lighting in their homes. There are vast numbers of people who live in absolute poverty where food and water is a daily struggle.

The cost of bringing people out of poverty and providing basic health services for every living person is minuscule compared with the cost of manufacturing more military arms and subsidising oil production. There is a massive movement growing across the world of self-help and solidarity organisations that are engaging in 'development from below'. Appropriate technology is an important element in this recipe for community autonomy and self-governance, as well as an important form of self-sufficiency and insurance if, or when, the present global order collapses. This chapter has shown some ways that we can begin to be part of this movement, with simple things we can do today and more ambitious and creative schemes we can embark upon with friends and family. These simple, painless adjustments in our lives can inspire us to think about some of the larger, more challenging ones.

Bryce Gilroy-Scott has worked and studied at the Centre for Alternative Technology (CAT), Wales. He is currently involved in a number of renewable energy and sustainability community projects and is presently building an ecovillage in the East Midlands of England in a woodland with a social enterprise that works with disengaged youth. Additional material on grey water filtration was provided by Starhawk, writer, activist, trainer and permaculture designer, and Malamo Korbetis, student and long-term volunteer at CAT.

resources
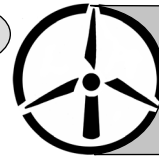
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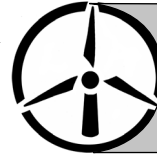
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Earth Policy Institute www.earth-policy.org/

Facts sheets on energy, water, waste, transport www.lowimpact.org

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Peak oil www.peakoil.net

Permaculture

Earth activist training www.earthactivisttraining.org

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Alternative Technology Association http://ata.org.au

Autonomous Coordinating Group of Appropriate Technology for Health www.catas1. org

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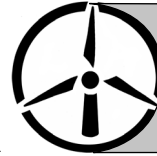
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3 why do it without leaders the seeds for change collective

The alarm clock rings. Shower, dress, listen to the news. Get irate: war in Iraq – no one's asked me! Tax increase, great. Yet another step closer to privatising the health service. Local elections coming up, politicians make new wonderful promises. Why bother? Rush to work, another dull day in the office. Get called in by the boss – new targets from head office, work overtime this week. That's my day off gone. Get home, microwave some food. Letter from the landlord: pay more or move out. Too tired to go out, just switch the television on for some light relief. Had a good day?

This chapter is about how we relate to each other and how we organise society. We are all, to some extent, controlled by others who don't understand or care about our wants and needs – managers, landlords, city councils, creditors, police, courts, politicians. And all of us exert power over others in varying degrees – in the home, at work, at school. How do we break out of this system of control, where we all, willingly or unwillingly, exert power over others, forcing them into actions they'd rather not do?

One solution is to challenge and provide alternatives to the rules, leaders and hierarchies that largely direct our daily lives and shape the way our societies function. We need to develop a different understanding of power – where people work with each other rather than seeking to control and command. And we need to find ways of relating to each other without hierarchy and leaders. These ideas are far from new and this chapter is a journey into a different world, where people have always striven for control over their own lives, struggled for self-determination and to rid themselves of their rulers and leaders. At the core of these struggles for liberty lies the desire of every human being to live a fulfilled life, following her interests, fulfilling her needs. A desire that extends towards creating a society where this is possible not just for a few, but for everyone. What follows is an exploration of ways of making decisions collectively and why it's important to organise society without leaders.

what's wrong with leaders?

> We all know that happiness comes from control over our own lives, not other people's lives. (CrimethInc 2000, 42)

Many of us have been brought up in a culture which believes that Western-style democracy with one-person-one-vote and elected leaders is the highest form of democracy. Yet in the very nations which shout loudest about the virtues of democracy, many people don't even bother voting anymore. They feel it doesn't make any difference to their lives.

When people vote for an executive they also hand over their power to representatives to make decisions and to effect change. Representative democracies create a system of hierarchy, where most of the power lies with a small group of decision makers on top and a broad base of people whose decisions are made for them at the bottom. People are often inactive in this system because they feel that they have no power and that their voice won't be listened to. Being allowed to vote 15 times in our lives for an MP or senator is a poor substitute for making decisions ourselves.

Even though our government may call itself democratic, there are many areas of our society where democratic principles have little influence. Most institutions and workplaces are hierarchical: students and employees don't usually get a chance to vote their superiors into office or have any decision-making power in the places where they spend the greatest part of their lives. Or consider the supermarket chain muscling its way into a town against the will of local people. Most areas of society are ruled by power, status and money, not democracy.

A desire for something different is nothing new. People have been refusing to accept the "god given" world order and struggled for control over their own destiny in every society humanity has known.

taking back control

> We have these moments of non-capitalist, non-coercive, non-hierarchical interaction in our lives constantly, and these are the times when we most enjoy the company of others, when we get the most out of other people; but somehow it doesn't occur to us to demand that our society works this way. (*CrimethInc 2005*)

The alternatives to the current system are already here, growing in the gaps between the pavement stones of state authority and corporate control. We only need to learn to recognise them as seedlings of a different kind of society. Homeless people occupying empty houses and turning them into collective homes, workers buying out the businesses they work for and running them on equitable terms, friends organising a camping trip, allotment groups growing vegetables on patches of land collectively; once we start looking there are hundreds of examples of co-operative organising that we encounter in our daily lives. Most of these organise through varying forms of direct democracy. Direct democracy is the idea that people should have control over their lives, that power should be shared by all rather than concentrated in the hands of a few. It implies wide-ranging liberty, including the freedom to decide one's own course in life and the right to play an equal role in forging a common destiny.

This ideal is based on two notions: first, that every person has the right to self-determination, the right to control their own destiny and no one should have the power to force them into something; and second, that as human beings most of us wish to live in society, to interact with other people. Direct-democratic systems aim to find a way of balancing individual needs and desires with the need for co-operation. Two forms of these systems are direct voting and consensus decision making.

Direct voting

It is only because people are not claiming their own power, because they are giving it away, that others can claim it for their own.

Direct voting does away with the need for leaders and structures of control. Decisions are made through a direct vote by the people affected by them. This ensures that decision-making power is distributed equally without giving group members absolute vetoes. When group members disagree, majority rule provides a way to come to a decision.

One of the problems with this is that the will of the majority is seen as the will of the whole group, with the minority expected to accept and carry out the decision, even if it is against their own needs, beliefs and desires. Another problem is that of a group splintering into blocs of different interests. In such cases decision making can become highly competitive, where one group's victory is the other group's defeat.

On the odd occasion people may find that acceptable, but when people find themselves in a minority they lose control over their own lives. It undermines commitment to the group and to the decisions taken. This often leads to passive membership or even splits in the group. Many groups using direct voting are aware of this problem and attempt to balance voting with respect for people's needs and

desires, spending more time on finding solutions that everyone can vote for, or pro actively protecting minority interests.

Consensus decision making

No one is more qualified than you are to decide what your life will be.
Another form of direct democracy is making decisions by consensus. At its core is a commitment to find solutions that are acceptable to all. Instead of voting for an item consensus works creatively to take into account everyone's needs. Consensus is about finding common ground with decisions reached in a *dialogue between equals*, who take each other seriously and who recognise each other's equal rights. No decision will be made against the express will of an individual or a minority. Instead the group constantly adapts to all its members' needs.

In consensus, every person has the power to make changes in the system, and to prevent changes that they find unacceptable. The right to *veto* a decision means that minorities cannot just be ignored, but creative solutions will have to be found to deal with their concerns.

Consensus is about participation and equalising power. It can also be a very powerful process for building communities and empowering individuals. Another benefit of consensus is that all members can agree to the final decision and therefore are much more committed to actually turning this decision into reality.

Consensus can work in all types of settings: small voluntary groups, local communities, businesses, even whole nations and territories:

- Non-hierarchical societies have existed in North America for hundreds of years. One example is the Muscogee (Creek) Nation, where in those situations when consensus could not be achieved, people were free to move and set up their own community with the support – not the enmity – of the town they were leaving.
- Many housing co-operatives and social enterprises use consensus successfully: a prominent example is Radical Routes, a network of housing co-operatives and workers' co-operatives in the UK, who all use consensus decision making.
- The business meetings of the Religious Society of Friends (Quakers) use consensus to integrate the insights of each individual, arriving at the best possible approximation of the truth.
- Many activists working for peace, the environment and social justice regard consensus as essential to their work. They believe that the methods for achieving change need to match their goals and visions of a free, non-violent, egalitarian

society. In protests around the world many mass actions involving several thousand people have been planned and carried out using consensus.

Different processes have developed both for small and larger groups of people, such as splitting into smaller units for discussion and decision making with constant exchange and feedback between the different units. However, like any method of decision making, consensus has many problems which need to be looked at.

- As in any discussion those with more experience of the process can manipulate the outcome.
- There can be a bias towards the status quo: even if most members are ready for a change, existing policies remain in place if no decision is reached.
- Sometimes it can take a long time to look at ideas until all objections are resolved – leading to frustration and weaker commitment to the group.
- The right to veto can be a lethal tool in the hands of those used to more than their fair share of power and attention. It can magnify their voices, and be used to guard against changes that might affect their power base and influence.
- Those who do more work or know more about an issue will have more power in a group whether they like it or not. This is a two-way process – people can only dominate a group if others let them.
- Where people are not united by a common aim they will find it difficult to come to the deep understanding and respect necessary for consensus.

Most of these problems stem from lack of experience in consensus rather than being inherent to the process. It takes time to unlearn the patterns of behaviour we have been brought up to accept as the norm. Living without hierarchy does get easier with practice!

Box 3.1 Consensus ≠ Veto Power

Unlike 'veto power' decision rule, consensus is based on the desire to find common ground. The veto power model, used in the UN Security Council and in parts of the European Union, works on mutual distrust and an unwillingness to compromise. The motivation behind negotiations is to prevent deadlock rather than to create a sense of shared goals and mutual respect.

creating societies without leaders

A society which organises itself without authority is always in existence, like a seed beneath the snow, waiting for a breath of spring air to rise up in its full beauty.

Alternatives to the current system of decision making in our society exist. We need to extend these spheres of free action and mutual aid until they make up most of society. It is the myriad of small groups organising for social change that will, when connected to each other, transform society. Once we realise that it is within our power to shape our environment and societies we can claim a new destiny for ourselves, both individually and collectively. In this we are only limited by our courage to imagine what can be, and by our willingness to learn how to coexist and collaborate. Societies based on the principle of mutual aid and self-organisation are possible. They have existed in the past and exist today. Our challenge is to develop systems for decision making that remain true to the spirit of self-government and at the same time allow decisions to be made that not only affect 20, 50, 200 people, but potentially tens or hundreds of thousands of people.

Self-government

> Every kind of human activity should begin from what is local and immediate, should link in a network with no centre and no directing agency, hiving off new cells as the originals grow. (Colin Ward 1982, 10)

Self-government is based on the ideal that every person should have control over their own destiny. This ideal requires us to find ways to organise a society in which we can coexist with each other whilst respecting people's individuality, their diverse needs and desires. Direct democracy in small groups depends on group members sharing a common goal, building trust and respect, active participation, a clear process. Clearly these same conditions also need to apply to making decisions on a much larger scale. But when it comes to organising large groups (such as neighbourhoods, cities, regions or even continents) the following points are particularly important:

(a) Decentralisation
Decisions should be made by those that are affected by them. Only those with a legitimate interest in a decision should have an input. The more local, the more decentralised we can make decisions, and the more control we will each gain over our lives.

(b) Diversity is our strength

We all have different needs and desires. To accommodate these we need to create a fluid society full of diversity, allowing each to find their niche – creating a richly patterned quilt rather than forcing people into the same bland uniform. The more complex the society we create, the more stable it will be.

(c) Clear and understandable structures

While we need the fabric of our society to be complex, we want the structures of organising and making decisions to be simple and understandable. It needs to be easy for people to engage in decision making.

(d) Accountability

Being accountable means taking responsibility for your actions. This makes it more difficult to accumulate power and avoids corruption – common pitfalls of organising on any scale.

In practice this means developing a decentralised society, with decisions being made at the local level by the groups of people affected by them. These groups will be constantly changing and adapting to serve the needs of the people connected to them. Where we need co-operation on a larger scale groups can make voluntary agreements within networks and federalist associations. If the processes are easily understood, transparent and open, then accountability is added to the whole process.

So what would this society look like? How will services be organised, limited goods distributed, conflicts resolved? How can health care, public transport, the postal service be organised?

Neighbourhoods and workers' collectives – a federalist model

One model for structuring society is using neighbourhoods and workers' collectives as the two basic units for decision making. Within the neighbourhoods people co-operate to provide themselves with services such as food distribution and waste disposal. Workers' collectives work together on projects such as running a bus service, factories, shops, hospitals. Decisions in all these groups are made by direct democracy, each member being directly involved in making the decisions affecting their lives. Some of these groups vote, others operate by consensus but all are characterised by respect for the individual and the desire to find solutions that are agreeable to all. It may sound as if we have to spend all our time in committees and meetings, but in reality most things are worked out through informal and spontaneous discussion and co-operation: organising on a local level is made much easier through daily personal contact.

A lot of co-operation is required between all these collectives and neighbour-hoods. Working groups and spokescouncils bring together delegates from different interest groups to negotiate and agree ways of co-operating on a local, regional and even continental level. Not everyone has to go to every meeting – an efficient and sensitive communications network is developed between all groups and communities. This involves sending recallable and directly responsible delegates to meetings with other groups. These delegates can either be empowered to make decisions on behalf of the group or they might have to go back to their group to check for agreement before any decision is made. Decision making is focused on the local level, with progressively less need to co-operate as the geographical area becomes larger. The details are resolved locally, only the larger, wider discussions need to be taken to regional or inter-regional levels.
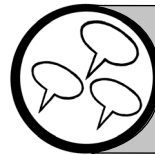
Box 3.2 Participatory Budgets

Participatory budgets are a process of democratic deliberation and decision making, in which ordinary city residents decide how to allocate part of a public budget. In 1989 the first participatory budgeting process started in the city of Porto Alegre, Brazil. In a series of neighbourhood, regional, and citywide assemblies, residents and elected budget delegates identified spending priorities and voted on which priorities to implement. Participatory budgeting is usually characterised by several basic design features: identifi-cation of spending priorities by community members, election of budget delegates to represent different communities, facilitation and technical assistance by public employees, local and higher level assemblies to deliberate and vote on spending priorities, and the implementation of local direct-impact community projects. Since their inception in Porto Alegre the concept of participatory budgeting has spread to many other municipalities across the world (adapted from Wikipedia and Particpatory Budgeting websites).

Can it be done?

You might find it hard to imagine how collective services such as train travel or bus services through several communities can be organised without a central authority, particularly if each community is independent and answerable to its residents rather than a central government. But consider present day international postal services, or cross border train travel, which are organised across countries without a central authority. These are based on voluntary agreements – it is in everyone's interest to co-operate.

Throughout history there are many examples of people organising society themselves. Often this happens in those rare moments when a popular uprising withdraws support (and thus authority) from the state. This leaves a vacuum of power – suddenly it becomes possible for ordinary people to put ideals of self-government and mutual aid into practice on a larger scale.

The economic crisis of December 2001 in Argentina brought about a popular uprising that is still going on today. The gap left behind as the government lapsed into chaos and the local currency collapsed was filled by local people getting to know and supporting each other. Factories were squatted and owners evicted so that the collective could benefit from their own labours. Land was seized to grow food for the community. But perhaps the most interesting development was in the way people began to experiment with different ways of organising themselves, their workplaces and their communities. Traditional hierarchies have been abandoned as people become more confident in their own skills and in their rejection of government and bosses.

The remarkable events of the Spanish Revolution in 1936 were the culmination of decades of popular education and agitation. During the civil war, large parts of the country were organised in decentralised and collective ways. A famous example is the Barcelona General Tramway Co. which was deserted by its managers. The 7000 workers took over the running of the trams, with different collectives running the trams for different parts of the city. Citywide services were maintained by federalist co-ordination. The increased efficiency of the collectives led to an operating surplus, despite running more trams, cutting fares, increasing wages and new equipment! The general spirit was one of optimism and freedom.

Building a community based on voluntary networks and mutual aid

What follows are two case studies of contemporary self-organisation and voluntary association.

Case study 1: HoriZone ecovillage. A temporary village in resistance to the G8 summit, July 2005, Scotland   A recent example of people creating a society based on co-operation is the ecovillage in Stirling, Scotland. Having come together with the aim of protesting against the Group of 8 nations summit and the global power system it represents, the people living in the ecovillage were also aiming to experiment with, and experience, a free society. For ten days, 5000 people from different parts of the world lived together communally in a tented, temporary village and put their ideas into practice. The ecovillage offered a unique chance to experiment with consensus decision making on a large scale. This was particularly exciting as one of the criticisms always levelled at consensus is that it might work for 20 people but that it would be impossible to organise whole communities or even countries on this basis.
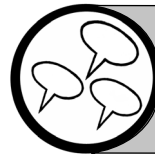
At the heart of the village were neighbourhoods of 50 to 200 people, where people lived, ate, discussed and relaxed together. Most neighbourhoods were based on geographical areas that people had come from (such as Manchester neighbourhood), others were based on shared interests (such as the Queer neighbourhood). People either arrived as part of a neighbourhood or joined one to their liking. Life in the neighbourhood was organised collectively, with shared meeting spaces, communal food, water and toilets. Work was done voluntarily, with the ideal that it would be shared out equally amongst everyone.

Working groups from different neighbourhoods with relevant skills and interests were set up and co-ordinated these activities. This included buying and distributing food, maintaining the water and grey water systems, first aid/medical care, camp-wide health and safety, refuse collection, and transport to and from the camp. Delegates from all working groups and all neighbourhoods met daily in the format of a spokescouncil for a site meeting, where this work was co-ordinated, policies agreed, and jobs identified and allocated. Delegates were generally rotated from day to day, were accountable to their groups and had limited decision-making power. Generally this worked well, everybody had enough to eat, enough water to drink and wash with, and a place to sleep in.

'Most people find it hard to imagine a whole society based on free association and co-operation, since most of us have only experienced societies based on hierarchy and competition. This is what was so amazing about the Ecovillage in Stirling. It was possible to catch glimpses of what a free society could be like: so many moments of co-operation, of people helping each other to overcome adverse circumstances' (participant at Stirling HoriZone)

There were a number of key challenges. First, while on a daily basis thousands of people took part in meetings both on a neighbourhood and site level, it was really difficult involving not just the majority of people but everyone. Some had no idea of how the camp worked, while others were busy organising actions or maintaining essential infrastructures. A facilitation group was formed and worked hard to make processes transparent and to involve everyone in the decision-making process. A second challenge we faced was balancing our own desires with the needs of our neighbours, especially in terms of setting agreed rules for things like quiet times and music volumes.

Case study 2: Zapatista autonomous municipalities   Since their uprising in January 1994 in the Mexican state of Chiapas, the Zapatista movement has been quietly building a parallel system of government based on local autonomy – linking present politics to traditional ways of organising life in indigenous communities. The Zapatista system of 'good government' contrasts sharply with what they call the 'bad government' of official representational politics in Mexico City. Zapatista villages are clustered into autonomous municipalities. These are run by an autonomous council (*consejo autonoma*) and everyone has to take turns in running them. In turn, clusters of about six municipalities form Good Government Juntas in a particular region (which acts like a mini-parliament). These juntas are based in physical places called the 'Caracoles' (which act like mini town halls) and form the first point of contact for the outside world.

The main function of the juntas is to counteract unbalanced development and mediate conflicts between the autonomous communities. Each junta also levies a 'brother tax' of 10 per cent of the total costs of all external projects undertaken in their zone which helps pay for the expenses of the junta. The juntas also organise rotas of volunteer interns to run the zone hospitals, schools and workshops. What makes this system of government special is that it is based on rotation of the delegates – it is not the people or personalities that endure but the functions they fulfil and pass on to others. The delegates have to learn how to govern and pass on the collective knowledge and information to the next team, which means that more knowledge and skills are spread throughout the community. At the heart of the juntas is the Zapatista idea of 'governing by obeying' – that governing is about listening and responding, not dictating, and that if people govern poorly they are recalled immediately. It all sounds complex and at times it is. The fact that everyone takes part often makes it confusing and slow and means there is less consistency. But this is real democracy in action where everyone takes part.

These case studies highlight areas we need to continue to develop:

(a) The first issue is a wider one around balancing our own desires with the needs of others. If we are to be free to make our own choices this will sometimes impact on what others can and can't do. The concept of having a multitude of different neighbourhoods and working collectives from which to choose from helps in this context: what is socially acceptable will be different in each neighbourhood. People will choose their place to live with that in mind. However if you can't fit in with your neighbours, it is not always easy or practical to move away. And we don't want to create lots of mini-ghettos which don't communicate. We need to find effective ways of resolving such conflicts without recourse to a 'higher authority' even in a diverse society. The next chapter on consensus decision making outlines some practical ways of dealing with this problem.

(b) The second issue is about how we make decisions that involve many different groups. Not everyone can be in each meeting at the same time (nor would they want to be!). We need to find effective and simple ways to delegate and make decisions on a large scale. The spokescouncil is one option and is explained in more detail in the next chapter. But we need to work hard, as the Zapatistas have done, to ensure openness and accountability – especially when the spokescouncil consists of thousands of people and there are several tiers of delegates. Experience tells us we need to develop ways of delegating, learning to trust each other and also how to take account of the needs and views of those not present when making decisions. We may be able to combine concepts such as spokescouncils and making decisions online to provide an answer to the challenges posed by large-scale consensus-based decision making.

turning our dreams into reality

Let us put this ideal – no masters, no slaves – into effect in our daily lives however we can, creating glimpses of free society in the here and now instead of dreaming of a distant utopian age.

In this chapter we've looked at how society might be organised more equitably. But these ideas aren't going to become reality by magic. The case studies and examples show that people have been doing it without leaders in many places around the world. It's up to all of us to learn the lessons from these experiences and apply them to organising our daily lives, our neighbourhoods and places of work. We need to

continue to come up with creative solutions to the challenges that working without leaders throws up. Above all we need to share and build on our experiences of doing it without leaders, helping us to avoid creating new forms of hierarchy and control

This need for research and skill sharing on making decisions without leaders has given rise to training collectives such as RANT in the USA and Seeds for Change in the UK. Such collectives are themselves examples of self-help and mutual aid where, based on their own experience, members offer free workshops, resources and advice to community and action groups. Everyone has skills that are worthwhile sharing with others. Here are eight steps that you can take for gaining control over your life:

- Get to know your needs and desires and learn to express them.
- Learn to understand and respect the needs and desires of others.
- Refuse to exert power over others. Look at your relationships with your family, friends and colleagues.
- Start organising collectively and without hierarchy – in community groups, in unions, at work.
- Start to say no when your boss is making unreasonable demands. Stop making demands of others.
- Learn about power and the true meaning of democracy. Get to grips with the ins and outs of consensus decision making.
- Share your knowledge and skills with the people around you.
- Don't give up when the going gets rough. Work out what's going wrong, make changes, experiment.

Seeds for Change are a UK based collective of activist trainers providing training for grassroots campaign groups. They also develop resources on consensus, facilitation and taking action, all of which are available on their website www.seedsforchange.org.uk.

4 making decisions by consensus the seeds for change collective

Chapter 3 looked at different ways of making decisions, and how a society based on direct democracy might look. This chapter provides a detailed guide for using consensus in your group. The tools described below are based on decades of experience in groups such as housing and workers' co-operatives. With commitment, they really do work and making decisions by consensus can be the bedrock of transforming our world and our relationships with each other.

what is consensus decision making?

Consensus is a decision-making process that works creatively to include all the people making the decision. Instead of simply voting for an item, and letting the majority of the group get their way, the group is committed to finding solutions that *everyone* can live with. This ensures that everyone's opinions, ideas and reservations are taken into account. But consensus is more than just a compromise. It is a process that can result in surprising and creative solutions – often better than the original suggestions. At the heart of consensus is a respectful dialogue between equals, helping groups to work together to meet both the individuals' and the group's needs. It's about how to work *with* each other rather than "for" or "against" each other.

Making decisions by consensus is based on trust and openness – this means learning to openly express both our desires (what we'd like to see happening), and our needs (what we have to see happen in order to be able to support a decision). If everyone is able to trust each other and talk openly, then the group will have the information it requires to take everyone's positions into account and to come up with a solution that everyone can support.

It may take time to learn how to distinguish between our desires and needs: after all most of us are more used to decision making where one wins and the other loses. In this kind of adversarial decision making we are often forced to take up a strategic position of presenting our desires as needs.

Box 4.1　*Guidelines for consensus building*

- Be respectful and trust each other. Don't be afraid to express your ideas and opinions.
- Don't assume that someone must win and someone must lose. Look for the most acceptable solution for everyone.
- Think before you speak, listen before you object. Listen to others' reactions, and consider them carefully before pressing your point.
- Remember that the ideal behind consensus is empowering not overpowering, agreement not majorities/minorities.

Conditions for good consensus

For good consensus building to be possible a few conditions need to be met:

Commitment to Reaching Consensus on all Decisions: Consensus requires commitment, patience, tolerance and a willingness to put the group first. It can be damaging if individuals secretly want to return to majority voting, just waiting for the chance to say 'I told you it wouldn't work.'	**Active Participation:** If we want a decision we all can agree on, we all need to play an active role in the decision-making.	**Clear Process:** Everyone needs to share an understanding of how consensus is being used. There are lots of variations of the consensus process, so even if people are experienced in using consensus they may use it differently to you! Explain the process at the beginning of the meeting.
	Good Facilitation: Appoint facilitators to help your large group meeting run more smoothly. The facilitators are there to ensure that the group works harmoniously, creatively and democratically.	**Trust and Respect:** We all need to trust that everyone shares our commitment, and respects our opinions and equal rights.
	Common Goal: Everyone at the meeting needs to be united in clear common goal — whether it's the desire to take action at a specific event, or a shared ethos. Being clear about the shared goal helps to keep a meeting focused and united.	

Figure 4.1　Conditions for good consensus

Source: Seeds for Change

The consensus process

The dialogue that helps us to find common ground and respect our differences can take different formats. Some groups have developed detailed procedures; in other

groups the process may be more organic. What process you use depends on the size of the group and how well people know each other. Below we outline a process for groups no larger than 15–20 people. Later on we discuss the spokescouncil process, which works for groups of hundreds, and even thousands, of people.

Introduce the issue, provide clarification and define question(s) to be decided
Gather initial thoughts and reactions. What are the issues and concerns?
Collect ideas and proposals for solving the problem and write them down
What are the pros and cons? **Modify some proposals, eliminate others and develop a shortlist of favourites.**
Look for a way to **bring together the best qualities** of the remaining ideas. Try to create a proposal out of the ideas you have left?

Discuss the **pros and cons of the proposal** — make sure everybody has a chance to contribute. Are there any **friendly amendments** to the proposal that make it more acceptable to the group?

Test for agreement:
- Are there any **major objections** that you can't overcome?
- Acknowledge **minor objections**
- Check for agreement **Do we have consensus?**

Implement the decision

Figure 4.2   A model for small group consensus

Source: Seeds for Change.

Dealing with disagreement in consensus

Consensus aims to reach a decision that everyone can live with. So what can be done when we need to reach agreement and we seem to be poles apart? To find a solution that works for everyone we have to understand the underlying problems that lead to the differing points of view and then come up with ways of addressing them: there are often specific problems causing the failure to reach agreement. These can often be dealt with by facilitation and are explored later in this chapter.

For those times when there is continued disagreement over a decision that needs to be taken, consider the following options:

- The major objection (block or veto): Using your veto will stop the proposal going ahead, so think carefully before doing it. But don't be afraid to veto when it's relevant. A veto means: 'If this decision went ahead I could not be part of this project'. If someone expresses a major objection, the group discards the proposal and starts working on a new one. People often ask what happens if the rest of the group is unwilling to respect the veto. This is a difficult situation where the group needs to decide whether the proposal is so important to them that they will risk the person who objects leaving the group. The ideal is never to be in a situation where a major objection is being raised in the first place. the key to consensus building is to identify areas people feel strongly about early on in the process, so that any proposals already take them into account.

- The minor objection (stand aside): There will be times when you want to object, but not veto. In those situations you can 'stand aside'. Standing aside registers your dissent, and says clearly that you won't help implement the proposal. A stand aside means: 'I personally can't do this, but I won't stop others from doing it.' The person standing aside is not responsible for the consequences, but also isn't stopping the group from going ahead with the decision.

- Agree to disagree**:** The group decides that no agreement can be reached on this issue. Imagine what will happen in six months, a year or five years if you don't agree. Is the decision still so important?

- The Fridge**:** Put the decision on ice, and come back to it in an hour, a day or a week. Quite often when people have had a chance to cool off and think it through things can look quite different.

- Backup options: Some groups have fallback options when no agreement can be reached.

    (a)   Allow the person most concerned to make the decision.
    (b)   Put all the possibilities into a hat and pull one out. Agree in advance on this solution.
    (c)   Some groups have majority voting as a backup, often only after a second or third attempt at reaching consensus, and requiring an overwhelming majority such as 80 or 90 per cent.

- Leaving the group: If one person continually finds him/herself at odds with the rest of the group, it may be time to think about the reasons for this. Is this really the right group to be in? A group may also ask a member to leave.

Facilitating the consensus process

Facilitation helps a group to have an efficient and inclusive meeting. Facilitators are essentially helpers. They look after the structure of the meeting, making sure everyone has an opportunity to contribute, and that decisions are reached.

Facilitation is a vital role that needs to be filled at every meeting. In small groups this function may be shared by everyone or rotated informally. Difficult meetings or meetings with a larger number of participants (more than eight or ten people) should always have clearly designated facilitators. However, all members of the meeting should always feel responsible for the progress of the meeting, and help the facilitator if necessary.

Box 4.2   A Facilitator's Skills and Qualities

- Little emotional investment in the issues discussed. If this becomes difficult, step out of role and let someone else facilitate.
- Energy and attention for the job at hand.
- Understanding of tasks for the meeting as well as long-term goals of the group.
- Good listening skills including strategic questioning to be able to understand everyone's viewpoint properly.
- Confidence that good solutions will be found and consensus can be achieved.
- Assertiveness that is not overbearing – know when to intervene decisively and give some direction to the meeting.
- Respect for all participants and interest in what each individual has to offer.
- Clear thinking – observation of the whole group.
- Attend both to the content of the discussion and the process. How are people feeling?

Depending on the group a facilitator might:

- Help the group decide on a structure and process for the meeting and keep to it.
- Keep the meeting focused on one item at a time until decisions are reached.
- Regulate the flow of discussion – drawing out quiet people and limiting over-talking.
- Clarify and summarise points, test for consensus and formalise decisions.
- Help the group in dealing with conflicts.

Facilitation roles

One facilitator is rarely enough for a meeting. Depending on the size of the group and the length of the meeting some or all of the following roles may be used:

- The facilitator helps the group decide on and keep to the structure and process of the meeting. This means running through the agenda point by point, keeping the focus of the discussion on one item at a time, regulating the flow of the discussion and making sure everyone participates. The facilitator also clarifies and summarises points and tests for consensus.
- The co-facilitator provides support such as writing up ideas and proposals on a flip chart for all to see or watching out for rising tension, lack of focus, flagging energy. They can also step in and facilitate if the facilitator is flagging, or feels a need to take a position on an issue.
- Keeping a list of speakers and making sure they are called to speak in turn can either be taken on by the co-facilitator or it can be a separate role.
- The minute taker notes down proposals, decisions and action points for future reference. They also draw attention to incomplete decisions – for example who is going to contact so and so, and when.
- The timekeeper makes sure each agenda item gets enough time for discussion, and that the meeting finishes at the agreed time.
- The doorkeeper meets and greets people on the way into the meeting, checks that everyone knows what the meeting is for, and hands out any documents such as minutes from the last meeting. This makes new people feel welcome, and brings latecomers up to speed without interrupting the meeting.

Common problems and how to overcome them

These two examples show how important it is to get to the bottom of the underlying issues when things get tricky in a meeting. Develop your ability to spot problems, the underlying reasons for them, and how to deal with them. The more trust and

understanding there is in a group the easier it will become to overcome problems. Facilitation can help supply the tools to avoid problems in the first place and help deal with them creatively if they do occur.

Box 4.3a   Problem 1

Tom, with lots of experience, confidence and a loud voice, is talking all the time and dominating the meeting. Hardly any one else gets a chance to speak.
Underlying causes

- *A lack of understanding of the consensus process on behalf of Tom coupled with an unwillingness of the rest of the group to challenge his behaviour.*

Possible solutions
The facilitator can equalise speaking time by using tools such as:

- *Introduce a go-round – each person speaks in turn for a set amount of time.*
- *At the beginning of the meeting set a limit on how many times a person can speak.*
- *Pro-actively ask other people for their opinion: 'Thank you, Tom, for your great ideas. What do other people think?'*

Box 4.3b
Problem 2

People are coming up with lots of ideas, but the discussion is going nowhere. People keep going off on tangents.
Underlying causes

- *Lack of structure and focus for the discussion.*
- *Weak facilitation.*

Possible solutions
The discussion can be moved on from its creative phase to making decisions:

- *Write all ideas up on a flip chart for all to see.*
- *Discuss one idea at a time, recording pros and cons for each one.*
- *When people bring up tangential issues, record them for discussion later. Avoid getting sidetracked.*
- *Check if the facilitator needs a break or support.*

tools for meetings

Here is a selection of tools you can use at various stages of a meeting to make it efficient and enjoyable for all. It is always a good idea to explain to people what tools you are using and why.

(a) At the beginning of the meeting

- Consensus training: Running pre-meeting 'introduction to consensus' sessions can make meetings more inclusive for everyone, and avoid conflict that arises from a misunderstanding of the process.
- Setting up the meeting venue: It's important that the space, and the way you use the space, doesn't isolate or alienate anybody. Is everyone able to hear and see clearly? Some rooms have very bad acoustics that require people to shout to be heard. Others have fixed seating or columns that restrict people's view and their ability to participate. Is the venue accessible to everyone?
- Group agreements and ground rules: Agree at the beginning of the meeting on how the meeting will be run. This prevents a lot of problems from occurring in the first place. It also makes it easier for the facilitators to challenge disruptive behaviour, as they can refer back to 'what we all agreed'. Possible ground rules might include: using consensus, hand signals, not interrupting each other, active participation, challenging oppressive behaviour, respecting opinions, sticking to agreed time limits, and switching off mobile phones.
- Clear agendas: These can help make a meeting flow more easily. Sort out the agenda at the start of the meeting or even, with the participation of the group, in advance. Be realistic about what can be achieved in the time you've got, and decide which items can be dealt with at a later meeting. Set time limits on each agenda item to help the meeting end on time. Make sure that everyone has an up to date copy of the agenda or write it up on a flip chart for everyone to see.
- Using hand signals: These can help meetings run more smoothly and helps the facilitators spot emerging agreements. It is important to explain what hand signals you will be using *at the start of the meeting* to avoid confusion!

(b) When making a decision
     Not every tool is suitable for every stage of the consensus process. Think carefully about when you would use which tool and why.

- Go-rounds: Everyone takes a turn to speak without interruption or comment from other people. Go-rounds help to gather opinions, feelings and ideas as well as slow down the discussion and improve listening. Make sure that everyone gets a chance to speak.
- Idea storm: Ask people to call out all their ideas as fast as possible – without censoring them. All ideas are welcome – the crazier the better and helps people to be inspired by each other. Have one or two note takers to write all ideas down where everyone can see them. Make sure there is no
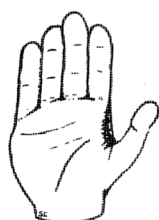
I want to contribute to the discussion
Raise a hand or forefinger when you wish to contribute to the discussion.

Technical point
Make a T-shape with your hands to indicate a proposal about the process of the discussion, eg. 'let's have a break'.

'I agree' or 'Sounds good!'
Silent Hand clapping. Wave your hands with your fingers pointing upwards to indicate your agreement. This gives a very helpful visual overview of what people think. It also saves time as it avoids everyone having to say 'I'd just like to add that I agree with...'.

Figure 4.3   Consensus hand signals

Source: Seeds for Change.

discussion or comment on others' ideas at this stage. Structured thinking and organising can come afterwards.
- Show of hands or straw poll: An obvious but effective way of prioritising items or gauging group opinion. Make sure people understand this is not voting, but to help the facilitators spot emerging agreements.
- Clear process: Used when dealing with multiple proposals. For example, if you plan to consider ideas in turn, let people know they'll all be considered and given equal time. Otherwise some people may well be unco-operative because they can't clearly see that there is time set aside to talk about their idea and may feel like they're being ignored. If you're putting some ideas to

one side, after a prioritisation exercise for example, you might like to ensure their 'owners' have agreed and understand the reasons why.

- Pros and cons: Got several ideas and can't decide which one to go for? Simply list the benefits and drawbacks of each idea and compare the results. This can be done in a full group, in pairs or small groups, working on the pros and cons of one option and reporting back to the group.

- 'Plus-Minus-Implications': A variation of the simple 'pros and cons' technique. It will help you decide between a number of options by examining them one by one. Create a simple table with three columns titled Plus, Minus, and Implications, and write 'positives', 'negatives', and 'implications' in each.

- Breaks: Taking a break can revitalise a meeting, reduce tension, and give people time to reflect on proposals and decisions. Plan a 15 minute break at least every two hours and take spontaneous breaks if the meeting gets too heated or attention is flagging.

(c)   At the end of a meeting

- Evaluation and constructive feedback: Evaluation allows us to learn from our experiences. It should be a regular part of our meetings and workshops as it gives us the chance for honest feedback on the process and content of the event, allowing us to improve in the future. Everyone who participates in an event should be encouraged to take part in its evaluation.

consensus in large groups – the spokescouncil

When making decisions in a large group there is a tendency to have one large meeting with hundreds of people. One of the problems with this format is that the large majority of people do not have a chance to speak due to time constraints. Instead it is usually dominated by a few confident people. This is not a good starting point for reaching consensus, which depends on mutual understanding and trust. Good consensus building is based on working in small groups where everyone contributes to the discussion.

The spokescouncil was developed to address this problem. It enables large numbers of people to work together as democratically as possible, allowing the maximum number of opinions and ideas to be heard in an efficient way. Many groups such as social centres and large workers' co-operatives use this process successfully as well as peace, anti-nuclear and environmental movements around the world.

How a spokescouncil works

In a spokescouncil the meeting breaks up into smaller groups to enable everyone to express their views and take part in discussions. Small groups can be either based on working groups, in regional groupings based on shared political analysis, or be entirely random. People in each small group discuss the issues and come up with proposals and concerns.

Each group sends a delegate (or *spoke*) to the spokescouncil meeting, where all the spokes present the proposals and concerns of their group. The spokes then come up with proposals that they think might be acceptable to everyone and check back with their groups before a decision is taken.
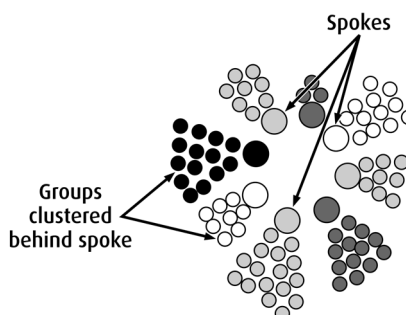
Figure 4.4   A typical spokescouncil

Source: Seeds for Change.

For a spokescouncil to work effectively the role of the spoke needs to be clearly defined. A group can choose to use the spoke as a voice – feeding back to the group the collective, agreed thoughts. Or the small group might empower their spoke to make certain decisions based on their knowledge of the small group. Being the spoke is not easy – it carries significant responsibility. You might like to rotate the role from meeting to meeting or agenda item to agenda item. It also helps to have two spokes, one presenting the viewpoints and proposals of their small group, the other to take notes of what other groups have to say. This helps to ensure that ideas don't get lost or misrepresented in the transmission between small groups and the spokescouncil. Spokescouncils require good facilitation by a team of at least three facilitators, which work well together and who are skilled at synthesising proposals.

This process works regardless of whether everyone involved is in the same location or geographically dispersed. Where small groups are based in different places, the spokescouncil either involves a lot of travel for the spokes or the spokes communicate via telephone conferences and chat rooms.

If all the people involved in making the decision are together in the same place, it works well if groups sit in a cluster behind their spoke during the spokescouncil. Groups can hear what is being discussed and give immediate feedback to their spoke. This can make the spokescouncil more accountable and reduce the need for repeating information.

Discussions and decisions in the Small groups	Feedback through the Spoke	Discussions in the Spokescouncil

1. Introduce issue

3. Voice first thoughts and reactions ← Question(s) and information ← **2. Define question for decision**

4. Gather ideas

5. Discuss ideas

Ideas, concerns, proposals

6. Develop proposals

Ideas/concerns from other groups and proposal(s)

7. Discuss and evaluate proposals ← Position of group → **8. Check if decision has been reached**

8. Implement decision ← Consensus — Yes   No

Figure 4.5   A model for spokescouncil consensus

Source: Seeds for Change.

Variations

If the issue impacts strongly on the needs of the people involved, then an additional step can be built in where small groups give information on their particular needs via the spokescouncil before starting to gather ideas. When there are just a few people with strongly opposing views that seemingly can't be resolved within the format of the spokescouncil we have successfully used the "back of the barn" technique. This involves those with strong views having a separate meeting with the aim of working out a proposal that they can all agree to. This definitely benefits from an

experienced facilitator who can help people express and listen to each other's concerns and needs.

Making consensus work with thousands of people

The spokescouncil itself is limited by the number of spokes that can have a meaningful exchange of information and discussion in the spokescouncil. In our experience a spokescouncil becomes much more difficult when more than 20 small groups are represented. If the maximum size of each small group is 20 people as well, this gives a natural limit of about 400 people for which the spokescouncil works.

To make consensus decisionmaking possible with thousands of people, peace and anti-nuclear movements have developed a three tier system, where small groups are affiliated in clusters who then send spokes to an overall spokescouncil.

The key to making this work is to make decisions at the most local level possible. Not every decision needs to be taken by everyone. The spokescouncil should be reserved for only the most important decisions, generally at a policy level. It is often the facilitators that will spot proposals that do not need to be decided in the whole group. For example, discussion around the wording of a press release should take place in the small working group that is actually writing it. This group can consult with everyone else for their ideas and preferences, but this is different from attempting to reach a decision with everyone. Consensus is based on trust and good will, even more so in a large group.

conclusion

Consensus is about participation and equalising power. It can also be a very powerful process for building communities and empowering individuals. Despite sometimes taking longer to achieve, consensus can actually save time and stress, because the group doesn't have to keep revisiting past decisions – they were fully supported at the time they were made. Don't be discouraged if the going gets tough. For most of us consensus is a completely new way of negotiating and making decisions – it takes time to unlearn the patterns of behaviour we have been brought up to accept as the norm. Consensus gets much easier with practice, and its true potential is often only recognised after a difficult decision has been reached in a way that everyone is happy with.

Seeds for Change are a UK based collective of activist trainers providing training for grassroots campaign groups. They also develop resources on consensus, facilitation and taking action, all of which are available on their website www.seedsforchange.org.uk

resources

Books

Try your local library first – they are generally quite happy to order or even buy books for you. If you decide to buy a book, get it from one of the radical/independent bookshops – they all do mail order! In the UK try News from Nowhere in Liverpool (0151 708 7270) or Housmans Bookshop in London (020 7278 4474).

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Websites
Blatant Incitement Project www.eco-action.org/blinc
Groundswell www.groundswell.org.uk
Participatory Budgeting www.participatorybudgeting.org.uk
Rant Collective www.rantcollective.net
Seeds for Change www.seedsforchange.org.uk
Skillsharing www.skillsharing.org.uk
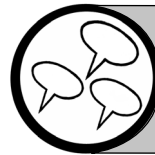
7 why we still have a lot to learn

The Trapese Collective

> Tell me, and I forget. Show me, and I remember. Involve me, and I understand.
> (Chinese proverb)

Education, and in particular popular education, is vital to respond to the ecological, social and climatic crises we face and to achieve meaningful radical social change. An education where we relearn co-operation and responsibility that is critically reflective but creatively looks forward – an education that is popular, of and from the people. There are many examples of groups that organise their own worlds without experts and professionals, challenge their enemies and build movements for change. What we outline here is what is known as popular, liberatory or radical education which aims at getting people to understand their world around them, so they can take back control collectively, understand their world, intervene in it, and transform it. This chapter looks at the importance of education in bringing about social change, and indeed how social movements for change have popular education at their core.

so what does popular education mean?

The word 'popular' can mean many things and has been mobilised by the right as well as the left. There is no single political project behind the methods of popular education. It has been used by all sorts of people including revolutionary guerillas, feminists, and adult educators; all with different aims. Development practitioners from organisations such as the World Bank, for example, increasingly use popular or participatory education to co-opt, manipulate and influence communities to secure particular versions of development. Yet it is important to promote and reclaim some of the more radical strands of popular education which are rooted in defiance ('we are not going to take this anymore'), and struggle ('we want to change things'), and

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geared towards change ('how do we get out of this mess'), while promoting solidarity ('your struggle is our struggle').

The Popular Education Forum of Scotland (Crowther, Martin and Shaw 1999) defines popular as:

1. Rooted in the real interests and struggles of ordinary people.
2. Overtly political and critical of the status quo.
3. Committed to progressive social and political change.
4. A curriculum which comes out of the concrete experience and material interests of people in communities of resistance and struggle.
5. A pedagogy which is collective, primarily focused on group rather than individual learning and development.
6. Attempts to forge a direct link between education and social action.

One of the activities that we have used in our workshops to start thinking about how we learn is to look at positive and negative learning experiences. People have told us that negative experiences are characterised by fear, discipline, constant assessment, humiliation, being bullied or bored, and unenthusiastic teachers. Positive experiences, on the other hand, are often those that are creative, interactive, student led, interesting, when learners are given responsibility, and take place in a supportive and friendly environment. Although many teachers in the state sector use participatory and progressive teaching methods, state funded education remains constrained by large class sizes, national curricula and targets. Table 7.1 outlines briefly some of the main differences between the overarching aims of formalised education in schools and universities, and popular education.

key aspects of popular education

1. A commitment to transformation and solidarity
Popular educators are not experts who sit on the sidelines; they participate in social movements, be they literacy campaigns, teach-ins about globalisation or by participating in actions. Solidarity means being on the side of the marginalised and working with agendas and goals chosen by those affected, not outside agencies. Charity and aid can provide temporary relief but are rarely designed to break the chains of dependency and encourage people to run their own affairs. At the heart of popular education is a desire not just to understand the world, but to empower people so they can change it. By identifying and exposing power relations, we can

Table 7.1   Comparing formal and popular education

Formal-state	Popular-participatory-liberatory
Why? To gain basic skills and teach acceptance of authority and preparation for participation in waged based work and consumerism.	Why? To raise critical consciousness, link with campaigns and action, and promote social justice and solidarity.
How? Learners receive knowledge from teachers, there is an emphasis on the end result, qualifications, exams and competitive grading systems.	How? Participants are active in how and what they learn. Hierarchies are challenged. Educators understand learning occurs in many different ways and employ a variety of techniques to build collective knowledge.
What is taught? Rational, fact based, information, learning skills for business and efficiency.	What is taught? Exploration of alternatives and radical solutions. Values emotional responses.

Box 7.1   Mujeres Libres

In the late 1930s in Spain, Mujeres Libres (Free Women) mobilised over 20,000 women and developed an extensive network of activities to empower individuals and build community. The movement saw education as central to releasing women's potential and to free them from the 'triple enslavement of ignorance, enslavement as woman and enslavement as a worker'. Classes were organised through cities and neighbourhoods. In 1938 in Barcelona alone, between 600 and 800 women were attending classes daily to capacitar (empower or prepare) them for a 'more just social order'. They organised autonomously from men, arguing that only through self-directed action would women come to see themselves as competent, capable and able to participate in the revolutionary movement. Classes ranged from basic literacy to, social history, law, technical skills and languages. They spread their message further through books and pamphlets and speaking tours. Virtually all the activists were self taught, putting in to practice theories of direct action and 'learning by doing'.

begin to develop an understanding of how we might challenge ways of organising social and economic life which perpetuate injustice, at whatever scale.

This type of education is not about explaining external problems, but also confronting each other and the social roles we have adopted. To make 'other possible worlds', we must also change ourselves and learn to listen to the experiences of others. It's not enough to understand how we think power works 'out there' if we overlook our role in reproducing power. Asking questions rather than providing answers is fundamental: What do we accept and reject? How do we pass on systems of domination be they class, gender, ethnicity or sexuality? How can we challenge these within ourselves? This way of teaching and learning is challenging and requires effort on both sides. Paulo Freire called it the 'practice of freedom' and talked of the dialectical relationship between the oppressor and the oppressed. This is what Freire meant by *conscientizacion*, through which we recognise our presence in the world, and, rather than adapting or adhering to social norms, we realise our potential to intervene and challenge inequality.
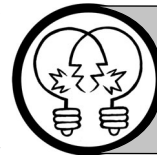
2. Learning our own histories not his-story

Although there is always at least two sides to every story, the vast majority of official history is exactly that – 'his-story', written by the literate educated few, mainly men, not by peasants, workers or women. We are taught about leaders of world wars and histories of great scientists, but not much about the silent millions who struggle daily for justice. These are the ordinary people doing extraordinary things who are the invisible makers of history. When they do appear, they are often portrayed as violent extremists. Few learn about the Haymarket martyrs in nineteenth-century Chicago who fought for an eight hour day, the nineteenth-century Luddites who challenged the factory system during the Industrial Revolution, or the women who occupied the Shell platforms in Ogoniland, Nigeria. Many of these stories are not told because people could not read or write, or did not have any means to record events and communicate with a wider audience. They are not recorded by historians because they evoke the dangerous idea that ordinary people can act collectively and do it themselves. Talking about a proposed gas pipeline in County Mayo, Ireland, a campaigner reflected,

> A generation ago we could not have resisted this pipeline, because we could not read and write – we wouldn't have been able to respond to what Shell were saying and doing or fight them in the courts. Now we can fight Shell on the same level and they don't know what to do. (Vincent McGrath, Shell to Sea Campaign, interview with authors, June 2005)

It is important to relearn our own hidden histories of struggle, they exist everywhere and can be uncovered. They can help to dispel apathy ('it's not worth it') and powerlessness ('it's too overwhelming'). Learning these lessons show us that most of our freedoms and improvements, which we value in our lives today, have been fought for and won through collective and sustained action by people like ourselves, not great leaders. Oral history projects that engage with members of a community and record their memories and walks that visit sites of historical interest, of uprisings and old ways of life are two ways of relearning and connecting these forgotten histories.

3. Starting from daily reality

Any project should begin by looking for connections between problems and people's everyday lives, not a preconceived idea of this reality. Popular education is about avoiding judging people and encouraging people to express themselves, in their own way. It is not about learning lists of facts, but looking at where people find themselves and how they understand what's going on around them.

Many believe that learning happens best where there is affinity between the educator and the participants – and when common experiences can be used as the material to be studied. In his work on popular education in the El Salvadorian revolution, John Hammond observed that the teachers in the National Liberation Front (an army largely made up of illiterate peasantry) were generally combatants who had only recently learnt to read or write themselves. The biggest challenge can be building bridges between disparate worlds. Talking about television or football and finding things in common can be ways to start a conversation. It takes time to connect with people, and respect and trust are the keys to positive learning.

4. Learning together as equals

Popular education methods are designed to increase participation and break down the hierarchy between educator/teacher and participant/learner. The educators and those they are working with collectively own the process, ideally deciding the curriculum and determining the outcome of the action to be taken. Whilst in many contexts educators are seen as experts who can provide quick fixes, popular education has an explicit aim to reduce dependency between educators and those they engage with. Radical educator, Myles Horton, would tell his students at Highlander that if he gave them an easy answer today, what would stop them coming back tomorrow and asking him again? He argues that groups trying to find a way out of a problem are often the most capable of experimenting with possible solutions and should be encouraged to do so.

Box 7.2 Highlander Folk School, USA. 'The people always know best'

The Highlander School emerged from the needs of various social movements in 1930s Tennessee. It initially got involved with the labour movement, helping workers to organise. By the mid 1960s it was central to the civil rights movement organising literacy classes in poor black communities, teaching them to read and therefore enabling them to register to vote. They started classes by reading the United Nations Universal Declaration of Human Rights, the powerful language of 'all men being equal', encouraging those who attended citizenship schools to demand more than just the right to vote. Participants included Martin Luther King and Rosa Parks, the latter sparking a desegregation movement by being the first black woman to refuse to give up her seat on a bus. Myles Horton, one of the founders, has become famous for his approach which argues that ordinary people have the ability to understand and positively change their own lives. The school continues today; its mission is 'to build strong and successful social-change activism and community organizing led by the people who suffer most from the injustices of society'.

5. Getting out of the classroom

A critique of the powers and rules we live by cannot flourish when learning only happens within the official institutions and places controlled and funded by those in power. The state control of schools and compulsory education is not inevitable, nor does it reflect a widely articulated need. However, it has become all encompassing. The school forms the ideology, patriotism and social structure of the modern nation state. Free, compulsory education is now based on the assumptions that the state has the responsibility to educate all its citizens, the right to force parents to send their children to school, to impose taxes on the entire community to school their children and to determine the nature of the education on offer.

One particular issue is the creeping influence of corporations on our education – through private academies, but also through sponsorship of learning materials, research, and even food and entertainment. Whilst we enjoy a 'free education' (i.e.

we generally don't have to pay) the influence of private corporations in the delivery of curricula as well as in schools' facilities is increasingly a cause for concern. Teachers are ever more limited in what they can teach by the national curriculum, and there is more compulsory testing from a younger age. Students are taught conformity to values chosen by government and increasingly big business. A recent report highlighted the links between universities and the oil industry:

> Through its sponsorship of new buildings, equipment, professorships and research posts, the oil and gas industry has 'captured' the allegiance of some of Britain's leading universities. As a result, universities are helping to lock us in to a fossil fuel future. (Muttitt 2003, 2)

Getting out of the classroom and institutionalised learning environments is a key part of rethinking learning about everyday life – outside encounters, street life, listening to somebody, at home, within the community are all places of learning that gives us valuable social skills and rounds our knowledge. This type of learning is also about challenging education's negative associations and making learning passionate, interesting and challenging. People learn everywhere and using social and cultural events, music, food and film is a good way to reach out to people who may not come to a talk or workshop. Experiments in education beyond formal schools include 'Schools Without Walls', such as the Parkway Program in Philadelphia where the whole city was used as a resource.

6. Inspiring social change

Discussing important subjects, such as climate change, can be depressing and can leave us with feelings of despair and doom. Rather than avoid talking about them we can look at ways to deal with this. Firstly, we can identify a number of common barriers to changing attitudes or behaviour:

- Apathy, 'I can't be bothered' or 'It doesn't effect me'.
- Denial that the issue exists.
- Feeling of powerlessness to do anything about the situation.
- Feeling overwhelmed by the size and scale of the problem/issue.
- Socio-economic time pressures and lack of support.

The way that learning happens can turn these attitudes around and help us turn our outrage and passion in to practical steps for action, our dreams in to realities. We can explore examples from the past where people have struggled and won and focus on workable alternatives. Practical tips for planning a workshop can help, such as identifying small achievable aims, breaking down issues in to manageable chunks

(see the next chapter for specific exercises), providing further resources, helping with action planning and campaign building.

Radical educators take on the responsibility to guide groups beyond common fears to reveal answers and possible escape routes to problems, laying possible options on the table. The art lies in the ability to make connections and establish bridges between people's everyday realities and what they start to think is possible in the future. Hence, inspirations for social change are presented slowly and gradually, with honest reflection, compromise and setbacks along the way.

Part of this learning experience is about sharing what is feasible, both in the here and now and other times and places. There are many workable ways of living that directly challenge the money economy, wage labour and ecological crises – many of which are discussed in this book – working co-operatives, community gardens, low impact living, direct action, autonomous spaces, independent media. On their own they may not seem much and are spread far and wide. But if they are gathered up and presented collectively they can provide excitement and hope and form a basis for a more creative, autonomous life.

popular education in action

There is a rich history that criss-crosses the world as people have struggled for freedom and against oppression. Popular education has flourished at times of big social upheavals, when people question the way the world is, and see a need to change their lives.

Educating the workers for freedom

The Industrial Revolution meant massive changes and new realities such as overcrowding, long working days and urban poverty. Working-class people in the UK did not have the right to formal education; in fact many educators and members of the aristocracy argued that education would confuse and agitate working people. Various associations were established to campaign against this injustice. Some authorities conceded that education for working people might be useful so long as it was devoted only to basic skills development. Associations struggling against these views developed their own forms of education – 'rag' magazines, study groups and community activities. Socialists of various affiliations struggled to educate themselves and those around them to understand and tackle the horrific new realities of life, whilst openly trying to develop class consciousness.

The book *The Ragged Trousered Philanthropist* (1918) by Robert Tressell is one famous example. It depicts the efforts of Owen, a firebrand socialist painter, trying to educate his reactionary pals about the evils of capitalism. A rich tradition exists ranging from the Labour colleges, the Correspondence societies during the revolutions in France and the USA, to later experiments such as Co-operative colleges, Workers' Educational Association, and adult education colleges such as Ruskin College in Oxford. Many of these presented a blueprint for transformation to a socialist society, based more or less on a Marxist-Leninist perspective. Alongside the workshop and the trade union, Marx schools or Workers' universities were set up. These sprang up across the world into the twentieth century, offering classes to workers in the basics of socialist thinking whilst also training professional international socialist activists and agitators, and becoming a focus for anti-communist surveillance and repression. Radical organising in working-class communities has continued through tenants' and claimants' unions, and in the UK through anti-poll tax unions drawing on these powerful roots.

Free schools

Many educational alternatives have been tried over the years, experimenting with radical education through free or progressive schools. Many had revolutionary potential, not just undermining state power, but also challenging ways of life and were seen as a real threat. For example, Spanish anarchist Francisco Ferrer was executed for plotting a military insurgency when he opened a school that was free from religious dogma. The high point for free schools was the New Schools movement in Europe in the mid twentieth century. Schools were based on voluntary attendance and children and teachers governed the school together. There was no compulsory curriculum, no streaming, no exams or head teacher. Instead libertarian ideas were promoted and there was a focus on creative learning and interaction between different ages and the outside world. Free schools exist throughout the world, such as Mirambika in India and Sudbury Valley School in the USA. British examples include Abbotsholme School in Staffordshire and Summerhill in Suffolk. While education is compulsory, schooling isn't; networks such as Education Otherwise and the Home Education Network provide support for the thousands of parents in the UK who choose to educate their children at home.

Struggles for independence

Popular education movements have played central roles in the struggles for independence in many colonised countries. In the twentieth century, socialist inspired nationalist struggles across Latin America and Africa used popular education to

engage with the masses, challenge oppression, apartheid and colonialism. Liberatory educators in countries including Nicaragua, Granada, Cuba, El Salvador and South Africa set up educational programmes to mobilise the masses, especially the rural poor. In these revolutionary contexts popular schools flourished. 'People's Education for People's Power' in South Africa, for example, was a movement born in the mid 1980s in reaction to apartheid and was an explicit political and educational strategy to mobilise against the exploitation of the black population. It organised Street Law and Street Justice programmes and literacy and health workshops – these programmes were also subject to repression.

Latin America

One of the best known examples of popular education being used to challenge oppression and improving the lives of illiterate people is the work of Paulo Freire in Brazil. Working with landless peasants, he developed an innovative approach to literacy education believing it should mean much more than simply learning how to read and write. Freire argued that educators should also help people to analyse their situation. His students learned to read and write through discussion of basic problems they were experiencing themselves, such as no access to agricultural land. As the causes of their problems were considered, the students analysed and discussed what action could be taken to change their situation.

Radical popular education has recently seen a resurgence in Latin America, as people try to make sense of the current crisis brought about by 30 years of neoliberal economic policies. In Argentina after the 2001 economic crisis, Rondas de Pensamiento Autonomo (roundtables for autonomous discussion) and open platforms in neighbourhood assemblies have become common features where people talk about the crisis and possible solutions. The Madres de Plaza de Mayo (The 'Mothers' who tirelessly campaign against the disappearance of many innocent people during Argentina's dirty war) have set up the Universidad Popular Madres de Plaza de Mayo on the Plaza del Congreso in the centre of Buenos Aires. This people's university, dedicated to popular education, houses Buenos Aires' best political bookshop, the literary cafe Osvaldo Bayer, and gallery and workshop space which holds classes, seminars and debates on topics from across Latin America. Since the establishment of the Venezuelan Bolivarian Republic in 2001 under Hugo Chavez, Bolivarian circles and local assemblies have spread to engage people in implementing decision making and the new constitution.

Education for global justice

Over the last ten years, the anti/alter-globalisation struggle has been a hotbed for popular education activity. A global summit of world leaders rarely passes without several teach-ins, counter-conferences and skill sharing events where activists and campaigners come together to inspire and inform each other about what they are attempting to understand and challenge. Groups and networks have emerged dedicated to producing and disseminating a huge amount of information on topics crucial to understanding our contemporary world: sweat shop labour, fair trade, immigration, war and militarisation, the effects of genetically modified organisms, neocolonialism and climate change. Hallmarks of such workshops are teaching horizontally and encouraging equal participation. Whilst big campaigns and mobilisations are often times for such educational outreach there are many social centres that provide space for ongoing autonomous education. La Prospe in Madrid has, since the mid 1970s, hosted Grupos D'Apprendizaje Collectiva (Groups for Collective Learning) on topics such as gender, globalisation, basic skills and literacy. As well as converging at global summits there are many international gatherings and seminars that all provide means of exchanging, building and networking ideas and experiences of different groups.

where now for popular education?

Social change will not be achieved by a small group of experts but will involve bringing people together on an equal basis. One of the issues that has faced the alter-globalisation movement is it's need to communicate with wider audiences to get off the activist beaten track. Although popular education on its own is not enough, it is one way for people to engage themselves and their communities in these discussions, to begin to think of their needs and the possibilities that can be created.

In post 9/11 USA, Katz-Fishman and Scott argue that a climate of fear, hysteria and pseudo-patriotism has been created to control and contain dissent. They argue that:

> To prevent the fragmentation and break down of the community means organizing ongoing educational development among grassroots-low-income and student-scholar activist communities of all racial-ethnic-nationality groups and bring people together on the basis of equality. (Katz-Fishman and Scott (2003)

This, they argue, must be done 'community by community and workplace by workplace'. We echo and support this call to action, to extend groups and networks of popular and radical education.

There is a widespread sense that something is not working. The illusion of infinite upward economic growth can't be maintained for much longer as natural resources become scarcer and the capacity for the planet to absorb waste becomes exhausted. There is therefore, a potential for radical critiques to be articulated and developed. Popular education tools can help us do this in ways that make sense to people and to reveal why alternatives are possible and necessary. One great potential of popular education is that its participatory methods mean that 'activists' learn to make their ideas relevant and accessible. In a world where we all impact upon the lives of others, the boundary between who is the oppressor and the oppressed becomes increasingly confused. In the developed world, as consumers of the world's resources driving a system of global exploitation, we must teach ourselves about the impacts we have on the world, the role our governments play, how to take responsibility, and, most importantly, how we can take action to change this. An education that seeks to address unequal power relations and empower collective action is vital. The work of people over the centuries, with limited resources but with a passion for change, should be our inspiration.

The Trapese Popular Education Collective is Kim Bryan, Alice Cutler and Paul Chatterton. They are based in the UK and since 2004 have been working with groups of adults and young people to understand and take action on issues including climate change, globalisation and migration. They also produce educational resources and promote participatory, interactive learning through training and skill-shares (see www.trapese.org).

8 how to inspire change through learning

The Trapese Collective

How things are taught is as important as what is taught in inspiring people to take action in their own lives. In these days of compassion overload we can't assume that any shocking statistic or distressing story will have any impact. Instead we need creative ways to think and learn about the problems we face.

In the year 2004–5 shortly after we formed our popular education collective Trapese, we carried out over 100 workshops, talks and quiz shows round the UK and Ireland exploring issues of the G8, climate change, debt and resistance. Since then we have continued our work exploring popular education methods as a way to support a range of campaigns. This chapter brings together practical advice which is based on our own experience of a four month long educational roadshow and from other groups who also use popular education as a tool for change.

Many of the activities and games mentioned in this chapter have been adapted from tried and tested methods of others doing similar work who made their resources available. What links the activities together is that they aim to create a collective understanding of problems, root causes and encourage people to take action, tapping into a desire for change. This is just a starter, there are many websites and books that expand all these ideas (see the resources section at the end of this chapter), but we believe that there is no better way to learn than by doing.

getting organised

Here are some of the stages in organising an event.

(a) Knowing the subject
- Choosing the theme should be the easy part, remember to have a clear focus for the workshop. Local issues can quickly be scaled up and connected with bigger questions.

- Find out as much as possible about the participants – how often they meet, what their interests are, what level of awareness they may have about the topics you want to talk about.
- While you don't need to be an expert, it's important to have some concrete facts as they will help give you credibility and confidence. Use books, films and websites, newspaper clippings and quotes from the radio, TV and films.
- Research any existing campaigns and try to understand the arguments of all sides.

(b) Designing the workshop
- Running a workshop with more than one person can really help practically – it also gives more variety.
- Bear in mind that people normally retain more if they have an opportunity to discuss, question and digest. Less is more.
- Remember that there are neither correct answers nor easy conclusions. The aim of the activities is to plant the seeds of questioning and encourage people to find out more for themselves.
- Use a variety of different types of information – films, games, debates and allow free time for questions and informal discussion.
- Include plans for action and possible future steps early on. Things often take longer than you imagine and it's depressing to hear all about a problem and then be left with no time to discuss what to do about it.
- Allow time for breaks – in our experience, any more than one and a half hours and people will start to switch off.
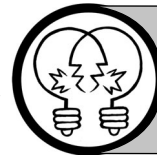
(c) The practicalities
- Getting people along can be the main challenge, look out for existing groups, unions, community groups/centres and spaces which have similar events.
- Advertise as early and as widely as possible using posters, websites, email lists, etc. but also think about personal invitations, which can be most effective.
- Set up all the equipment you need well in advance to avoid last minute stress.
- If space permits, arrange the chairs in a circle as people can see each other and there is no one at the front lecturing.

Figure 8.1   Poster advertising our workshops

- Think of a method for people to give feedback and to exchange contact details.
- Provide snacks and drinks.
- Offer people the possibility of further sources of information, either through handouts or websites.

(d) Facilitating

- Keep to an agreed time frame and explain the aims and structure of the workshop.
- If you are friendly and respectful, then other people are more likely to follow your example.
- Make a brief group agreement at the start – this can include things like everyone will turn off mobile phones, agree to listen to other people speaking, wait their turn, etc.
- Ask people who haven't spoken if they would like to contribute.
- Don't be afraid to admit that you don't know the answer. You can offer to find out or suggest that you find the answer together.
- People learn best when they come to their own conclusions. The facilitator's role is to lead people through information, rather than presenting completed solutions. Ask questions and encourage participants to ask questions. For example, 'the way it works is ...' can be replaced by 'why do you think it works that way?' This may take a bit longer but it is more likely to be absorbed.
- Use bright, colourful props and a range of media to draw people's attention. Dress appropriately to the group.

exercises for social change

Think of a really boring teacher at school. What made them boring? Were they monotonous, arrogant, bossy or stern? Think of some piece of information that really impacted on you. Why do you remember it? What struck you about it? How was it presented? Thinking about being a participant yourself will help you to plan a workshop. At the same time, remember people learn in different ways – through listening, writing, drawing, speaking and acting – so try and use a variety of senses. Many of these activities can be easily adapted to work on other topics.

1. Warm ups

Warm ups set the context of workshops and allow everyone to get to know each other. They can be more animated or calming depending on what you feel is appropriate for the group. Games can be a good way to create a participatory environment where everyone feels they can contribute. Some physical contact (being aware of different abilities and cultural sensitivities) can be a good way to relax people and break down personal boundaries. Go round the room and ask people to say their names, and if there is enough time ask them to add what they hope to get out of the workshop. This can help the facilitator pitch things accordingly.

Play a game   Before you do anything, try playing a short physical game – we all know many from our childhood, such as musical chairs, keeping a ball or balloon up in the air, or stuck in the mud.

Finding Common Ground

*Aim: A*n icebreaker and a way to see how many similarities exist in the group's opinions.

Method: Everyone stands in a circle. Explain that when a statement is read out, if they AGREE they should take a small step forward. If they DON'T AGREE, stay put. No steps to be taken backwards. Statements should try and reflect the interests of the group and controversial or topical issues. for example:

- 'I think corporations are taking over our political processes'.
- 'This makes me angry'.
- 'I drink fair trade coffee/tea'.
- 'I don't think that's enough'.
- 'If more world leaders were women, the world would be a better place' etc.

Depending on the size of the group, with ten or so statements everyone should be in the centre of the room. At this stage you can all sit back down again. Alternatively, ask each member of the group to close their eyes and put out their hands into the middle of the (now very small) circle. Ask each person to take two other hands. When they open their eyes the task is to untangle the knot of hands.

Outcomes and tips: The tangle is also good for working together out of an apparently impossible mess. Be prepared to abandon it if it takes ages!

2. Collective learning

Before beginning an explanation about collective learning, ask people what they already know about it. One way of doing this is to ideastorm around an issue. Ask people to shout out what they know about something and write it up visibly so that everyone can see the ideas. Don't correct people at the time if they say something incorrectly but make a mental note to come back to the point later.

Acronym game/Articulate

Aim: To jargon bust, build group understanding of terms and to gauge the existing knowledge of a group. The game introduces lots of background information and gets people working in teams.

Method: Write out some relevant acronyms or words on small cards. Divide the group into teams and divide the cards so they have roughly one per person. Ask groups to discuss the cards and work out what they are/mean/ do. Help if necessary. Each group then presents the acronym to the other groups without saying any of the words in the name. For example, if you have WTO you can't say the words 'World', 'Trade' or 'Organisation' in your description but something like, 'It's a global institution that makes rules about and removes barriers to trade'. Or an emotional response, 'It's the most damaging institution in the world and should be abolished'. The team which correctly guesses what the acronym stands for receives the card. Ask the group if they can explain the idea in more detail.

Some acronyms we have used include:

- PFIs (Private Finance Initiatives). Corporations investing in public services, such as hospitals and schools.
- IMF (International Monetary Fund). Lends money to developing countries; generally comes with conditions on market based reforms.
- WB (World Bank). Lends money to projects in developing countries, mainly focusing on large infrastructural projects like dams and roads.
- SAPs (Structural Adjustment Programmes). Conditions for IMF loans which involve liberalising the economy, deregulating and privatizing industries.

Outcomes and tips: Demystifying complicated acronyms and terms is important to developing a critical awareness about our world. This game can last a long time so be prepared to cut it short in order to stick to your workshop plan. Any words, names or ideas can be used for this game and it is a good lead in to the Spidergram game (see below).

Spidergram (Mapping Climate Change)

Aim: To explore a topic visually, make connections between ideas and unpack cause and effect.

Method: In small groups, draw a box in the middle of a big piece of paper and write the big theme which you want to explore, e.g. 'climate change'. Ask people to think of things which directly cause this like 'flights', 'cars' and connect these to the centre with a line. Then think of problems or issues relating to these issues like 'pollution', 'asthma', 'traffic jams', etc. If linking to the acronym game, mentioned above, choose a couple of cards and ask people to draw connecters to other cards and arrange them.

Outcomes and tips: You'll soon build up a picture of connections like a spider's web. Ask the group which words have the most links. Make sure you go round and help groups.

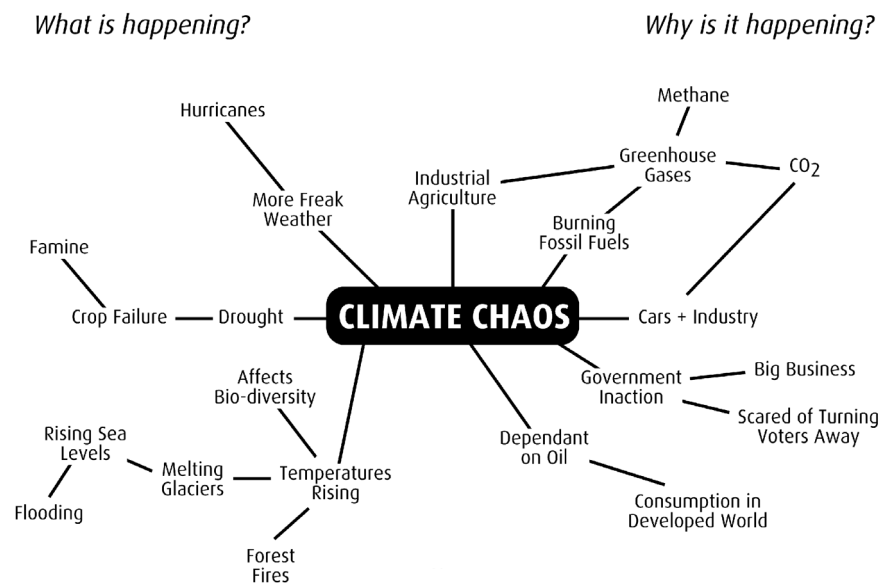*What is happening?*   *Why is it happening?*

Figure 8.2   Spidergram

Source: Trapese Collective

3. Using visual activities

It is often more striking to see something simply but visually than to listen to a long list of statistics. Physical and visual activities change the pace and dynamic of a

workshop, which helps participants retain concentration. Look for possibilities of involving practical tasks, training or experiments in the workshop.

Chair game

Aim: A simple way to show the imbalance between the G8 countries and the rest of the world. This game can be modified to represent other imbalances or statistical information, e.g. debt, trade or carbon emissions.

Method: Ask ten volunteers to form a line with their chairs and to sit on them. You are going to ask a series of questions and in each question, one chair equates to 10 per cent of the total. During the game, people will move along the chairs according to their allocated amount. Always try to get the answers from the participants.

Figure 8.3   Chair game

Source: Alberta Council for Global Co-operation.

Explain that the ten people represent the world's population, which is roughly 6 billion – so each person represents 10 per cent or 600 million people.

Question: What percentage of the world's population is in G8 countries?

Answer: 12 per cent.

Nominate one person (ideally at one end of the line) to represent the G8. The remaining 88 per cent are the majority world.

Question: What percentage of the world's total Gross Economic Output is produced by the G8 countries?

Answer: 48 per cent (roughly 50 per cent).

Ask the nominated G8 person to occupy five chairs while the remaining nine squeeze on to the other five chairs.

Question: What percentage of the world's total annual carbon emissions are produced by the G8 countries?

Answer: 62 per cent.

Ask the nominated G8 person to occupy six chairs while the remaining nine squeeze on to the other four chairs.

Question: Of the top 100 multinationals how many have their headquarters in G8 countries?

Answer: 98 per cent.

That would leave the majority without any chairs but if the G8 generously gave a bit of aid that would leave them with one chair. Ask the nominated G8 person to occupy nine chairs while the remaining nine squeeze on to only one chair. This is obviously quite difficult.

Outcomes and tips: Ask the G8 how he/she is feeling – then ask the majority world what they would do to change the situation. Some people might try to persuade the G8 to give them their chairs back; others just go and take them.

4. Debate it!

Often participants really value an opportunity to talk freely, but as a facilitator free debate can be very difficult to structure and dominant personalities or viewpoints can easily take over. The following activities help to structure things.

The YES/NO game (or Issue Lines)

*Aim: To s*ee opinions in relation to other points of view and for participants to try and defend or persuade others of their perspective.

Method: All stand up and explain that you are all standing on a long line with YES at one end and NO at the other and NOT SURE somewhere in the middle. (It can help to make signs.) Read a statement and ask people to position themselves in the room depending on their point of view. When people have moved, ask someone standing in

the YES or NO sections to try and explain why they are standing where they are, then ask the opposite side for an opinion. Allow the debate to continue awhile and then ask participants to reposition themselves depending on what they have heard.

Questions that we have used include:

- Is nuclear power a viable, alternative to fossil fuels?
- Is it desirable that levels of consumption in the developing world equal that of those in the 'developed' world?

Outcomes and tips: These debates are often lively. Be careful not to allow any one person, including the facilitator, to dominate and make sure the question has a possible yes-no range of answers. Try working in smaller groups to allow everyone to speak and then give time for groups to feed back their main points.

Role plays

Aim: To present different opinions and encourage people to think from varied perspectives. Role plays enable participants to develop characters and take on their opinions, providing an excellent opportunity to express common misconceptions and controversial opinions without the participants speaking personally.

Method: Prepare a 'pro' 'anti' and/or 'neutral' camp with prompt cards for each. This should include context, details on how to act and speak, and ideas on how to respond to questioning. Explain that people should keep in this role at all times, even if they don't agree with the views expressed. Give people time to discuss and expand on the prompt cards. A good way to structure discussion is to chair a hearing between the different parties, where a mediator asks each side to present their case in turn. Allow time for open questions, followed by a summing up.

Example: Building a local road.

- Chief Executive of Gotham City: Your city is booming and the key to its success is road transport. Business and tourists are being attracted from the whole country. Argue that: if the new ring road doesn't go ahead then the economic viability of the area will suffer. Less growth means fewer taxes, which means less money for public services.
- Concerned citizens near the proposed road: There has been so much development in this city that there doesn't seem a case for any more. Roads are jammed already and just building more roads doesn't solve the problem, but only encourages more car use. Argue that: more cars equals more pollution, accidents and unhealthy lifestyles.

Outcomes and tips: Role plays need to be well prepared and work best when people are confident speaking in front of each other. With a longer session, ask participants to research and develop roles for small groups to enact.

5. Connecting histories and lives

Sharing our collective pasts is a key way to begin to understand our present and to imagine our futures. There are many ways to do this, through oral histories, participatory video documentaries, etc. It can also be useful to plot events on to a visual representation of history.

The rise of global capitalism and resistance timeline

Aim: To chart the rise of the current economic system and global resistance to it, to show international organisations in context. It can be used, for example, to show how US foreign policy has worked and evolved, or how resistance movements in the global North and South have progressed and connected.

Method: Draw a timeline on a big piece of paper or cloth, write key moments of the development of the economy and resistance events on to cards and give one or two to each pair. Give them time to discuss it and ask any questions about it and then ask them to put the events on the timeline where they think it occurred. Also give participants blank cards and ask them to fill in things they would like to add – maybe from their local area or that they have been inspired by. Go through the events, asking others to explain and give their opinions and help people identify connections.

Outcomes and tips: This activity helps people see connections between seemingly separate events. Make sure you have reliable information on dates, etc.

6. Get out of the classroom – creative educational events

Plays, film screenings, music, talent shows, bike rides, mural painting, nature trails, and cooking are all ways to get together and can be adapted to a theme. A walking tour can be a great way to bring a theme to life and to learn about our built environment or local history.

Walking tours of immigration controls and the 'chain of deportation'

Aim: To draw to people's attention institutions, companies and government departments involved in the chain of deportation of asylum seekers. A tour exposes the process and joins the dots in the picture of detention and deportation and helps understand the system.
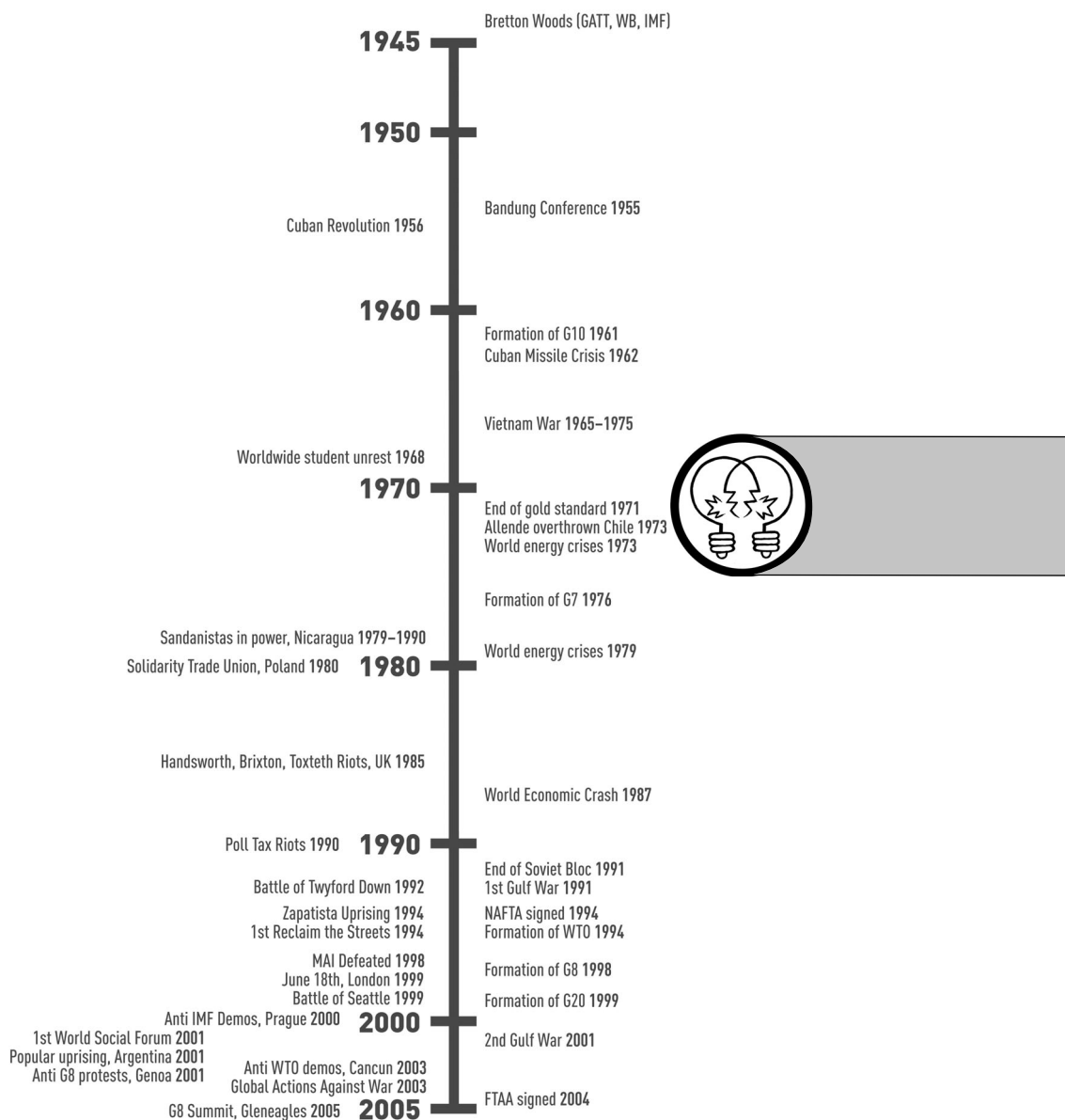
1945	Bretton Woods (GATT, WB, IMF)
1950	
Cuban Revolution **1956**	Bandung Conference **1955**
1960	Formation of G10 **1961** Cuban Missile Crisis **1962**
	Vietnam War **1965–1975**
Worldwide student unrest **1968**	
1970	End of gold standard **1971** Allende overthrown Chile **1973** World energy crises **1973**
	Formation of G7 **1976**
Sandanistas in power, Nicaragua **1979–1990**	World energy crises **1979**
Solidarity Trade Union, Poland **1980** **1980**	
Handsworth, Brixton, Toxteth Riots, UK **1985**	
	World Economic Crash **1987**
Poll Tax Riots **1990** **1990**	End of Soviet Bloc **1991** 1st Gulf War **1991**
Battle of Twyford Down **1992**	
Zapatista Uprising **1994** 1st Reclaim the Streets **1994**	NAFTA signed **1994** Formation of WTO **1994**
MAI Defeated **1998** June 18th, London **1999** Battle of Seattle **1999**	Formation of G8 **1998** Formation of G20 **1999**
Anti IMF Demos, Prague **2000** **2000**	
1st World Social Forum **2001** Popular uprising, Argentina **2001** Anti G8 protests, Genoa **2001**	2nd Gulf War **2001**
Anti WTO demos, Cancun **2003** Global Actions Against War **2003**	
G8 Summit, Gleneagles **2005** **2005**	FTAA signed **2004**

Figure 8.4   Timeline of world history and resistance used in a workshop

Source: Trapese Collective.

Method: Research the government sponsored institutions and private companies that earn money carrying out these racist policies, and organise a tour to visit some of the places in your area that are involved in locking up and deporting asylum seekers. Go as a walking tour in groups, assemble in a public place and have easily identified guides with maps, information, loud speakers, music, etc.
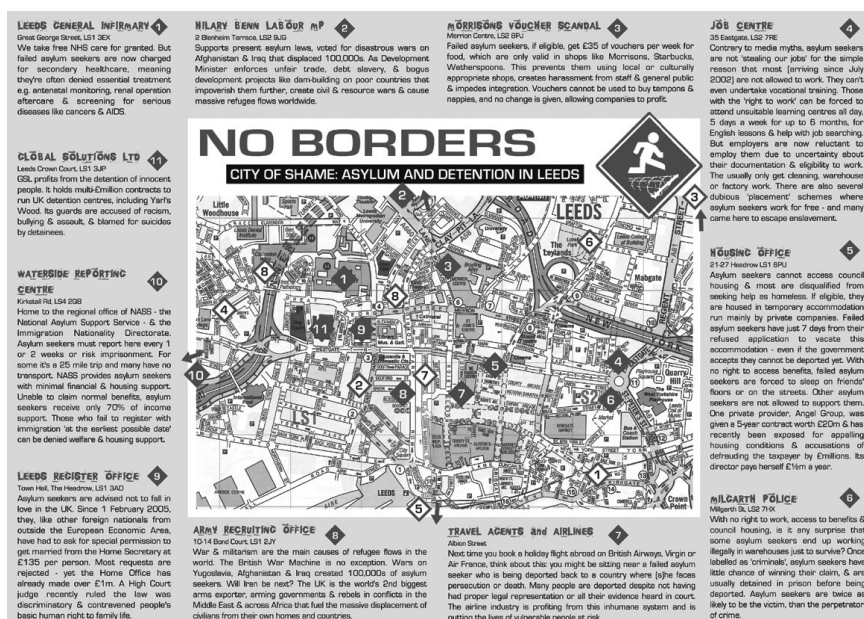

Figure 8.5   No Borders Tour of Asylum Shame, Leeds

Source: Leeds No Borders.

Social change pub quiz

Aim: A social event where the content matter is related to important issues. Can be a good way to outreach to different audiences.

Method: Find a venue to host you – community centre, student union bar or a local pub – and advertise the event. Make up several themed rounds of questions, get answer sheets, pens and prizes and maybe a microphone. Keep it varied by using multiple choice, picture or music rounds, bingo or maybe even some subverted karaoke.

Example: The Food Round.

1. How many million battery chickens are produced for consumption each year in the UK?
   (Answer: 750 million)
2. How many billion did Wal-Mart's global sales amount to in 2002; was it (a) $128 billion, (b) $244.5 billion, or (c) $49 billion?
   (Answer: b)
3. What is the legal UK limit for the number of pus cells per litre of milk that may be legally sold for human consumption?
   (Answer: Up to 400 million)

Sources:
1. and 2. Corporate Watch (2001)
3. Butler (2006).

7. Planning for Action

The aim of the game is that people leave with concrete ideas about what they are going to actually do – a next date, an ambition or a vision. This stage is also a chance for people to share ideas about the things they are already doing and plug any events or projects.

Action mapping

Aim: To show a variety of actions and inter-connections.

Method: Ask groups to think of two ways to tackle the issue that the workshop is dealing with at different levels: the individual, local and national/international for example.

Outcomes and tips: Get groups to think about time scales for their actions and how they practically might do them. A variation is to think about two things to do this week, this month, this year, etc.

Picture sequences

Aim: To look at how things are and how we would like them to be, and to work out how to get there.

Method: Draw a simple picture that represents, 'the present', with all the problems illustrated. Then, as a group, put together a second drawing to represent 'the future', which shows the same situation once the problems have been overcome or the improvements made. Make sure you incorporate everyone's ideas of what you hope

Table 8.1   *Example*: The problem: climate change

What can you do individually?	*What can you do locally?*	*What can you do nationally/ internationally?*
Energy efficiency; insulation, turn heating down etc., switch to green energy sources.	Develop community owned renewables, energy sources and food production.	Take part in actions, protests, camps and gatherings.
Stop flying unless unavoidable and cut car use.	Set up neighbourhood composting schemes.	Support/publicise struggles against fossil fuel extraction, e.g. new pipelines.

to achieve. Once you have the drawings, put them where everyone can see them with a space in between them, then ask yourselves how you can get from the first to the second. What needs to happen to get there? How could it be achieved? Use the answers to make your own middle, between the present and the future. Now you have your vision and have gone some way to working out your action plan.
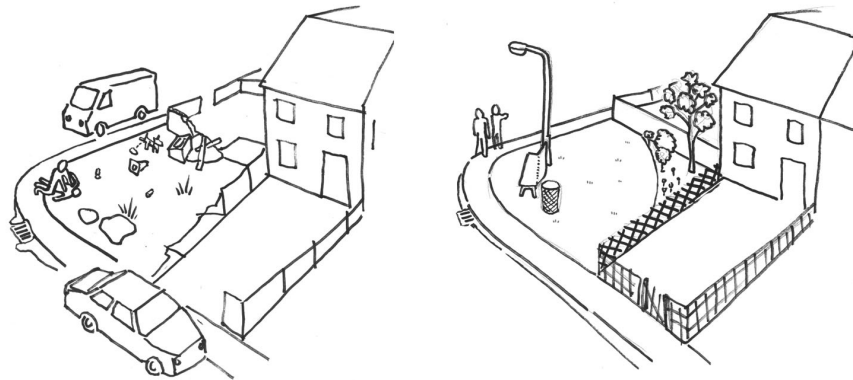

Figure 8.6   Designing your own life: before and after

Source: Groundswell.

Presents

Aim: To end the workshop on a high note and to get participants to 'think the impossible'.

Method: Identify the main problem that people want to focus on. Give out cards with an imaginary present written on to each participant. Ask them to describe how they would use their present to solve the problem.

Examples:

- the ability to look like anyone you want
- £1 million
- a minute of prime time TV
- a key that unlocks any lock
- an invisibility cloak
- a guarantee you'll never get caught.

Calendars of resistance   It's important to share information on other things that you know are going on in the area. Draw up a calendar with contact details for people to get more information.

Skills for good communication

- Challenge dominance. Both from vocal participants and as facilitators. Be open from the start about why activities are being undertaken and do not manipulate participants to certain ideological ends.
- Don't judge. Be supportive in your approach and recognise the validity of a diversity of actions and viewpoints. It's not about persuading people to think or act as you want them to!
- Listening is crucial. Learn the importance of active listening to allow necessary discussion. Letting people talk, reducing dependency and empowering people to think for themselves are at the heart of radical education.
- Overcome powerlessness. If everything is connected you can't change anything without changing everything. But you can't change everything, so that means you can't change anything!' (A student after a lesson on globalisation from the book *Rethinking Globalisation*) (Bigelow and Peterson 2003).

While it's not true that we cannot change anything, this student's comment demonstrates how depression and a feeling of powerlessness is a logical reaction when solutions seem very small in the face of such large forces. Here are some tips for giving positive workshops about negative subjects:

- Don't cram in too much information. Go step by step and give things time and space to develop.
- Mention the empowering side. Look for the positive things we can do and emphasise our creativity, our adaptability. Sharing personal experiences and failures can be very useful. Start with concrete achievable aims and develop from there.

- It is important that people are not left feeling isolated and that there is follow up.
- Try making a presentation about initiatives or protests that have inspired you with images or photos and use this is a springboard for talking about the viability of these ideas.

making the leap to action

There are lots of issues which people are angry and passionate about and areas where they want to take action. Getting together to discuss and understand problems is a good way to reduce feelings of isolation and to launch campaigns and projects. It is really important to pick our starting points carefully, to build up trust and meet people in their daily realities, whilst not being scared of expressing radical views. Having worked with different groups we have been continually inspired by people's views, opinions and desires to instigate change. These experiences have helped us to break down the false distinction between activists and everyone else and we have learned as much as we have taught. Popular education is about building from the beginning and finding innovative ways to learn together, realising the capacity that we have to take control of our lives and facilitating collective action, and for us, this lies at the heart of building movements for change.

The Trapese Popular Education Collective is based in the UK and since 2004 has been working with groups of adults and young people to understand and take action on issues including climate change, globalisation and migration. They also produce educational resources and promote participatory, interactive learning through training and skill-shares (see www.trapese.org). Additional material sourced gratefully from Rising Tide, Groundswell, the Alberta Council for Global Co-operation and Rethinking Schools.

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Highlander School www.highlandercenter.org/r-b-popular-ed.asp

Home Education www.home-education.org.uk

Institute for Social Ecology www.social-ecology.org/

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Laboratory of Collective Ideas (Spanish) www.labid.org/

PoEd News www.popednews.org/

Popular Education European Network List http://lists.riseup.net/www/info/poped

Popular Education for Human Rights www.hrea.org/pubs/

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Film resources

Beyond TV www.beyondtv.org/

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9 why we are what we eat

Alice Cutler and Kim Bryan

Food is essential to what we are. For centuries it has shaped societies and cultures. The word diet stems from the Greek, *digitals*, which means 'way of life'. However, huge changes are underway in our ways of life through the corporate takeover of the food chain whereby food is placed increasingly in the hands of multinationals and locked in a cycle of fossil fuel politics. In the last 60 years how we eat, produce, consume and cook food has altered dramatically. From pumping it with additives and preservatives, growing it with pesticides and fertilisers, to the consumption of processed and genetically modified foods, a chain of events has been set in place by industrial agriculture that has huge implications for farmers, the countryside and biodiversity in general.

A crucial part of building sustainable futures, self-managed lives and struggles for autonomy lies in addressing how we produce what we eat. The premise of this chapter is that the issue of food and food production is inherently political. To take a step away from the grip of capitalism and in order to free ourselves from being passive consumers who are alienated from nature, we must learn how to nourish ourselves and our movements. This chapter explores a range of possibilities and projects that lend themselves both as inspirational examples and real and viable options in changing how and what we eat.

understanding where we are at

Imagine the history of humankind stretched out along a 10 metre rope. The blip of time since the Industrial Revolution would be represented by the last few centimetres on the rope with industrial agriculture and genetic modification of crops barely measuring a few millimetres at the end. The first farms began to appear as plant

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and animal species were domesticated about 13,000 years ago but it wasn't until the industrial revolutions began to unfold in eighteenth-century Europe that mass movement from the country to the city took hold and the way food was produced changed significantly. In the UK the end of the Corn Laws in 1846 saw the end of market protectionism and ever since imports have increased. By the start of World War II, 70 per cent of the UK's food was imported. This trend is replicated around the world as free market policies have radically changed traditional agricultural models. The following sections look at three of these issues in more detail: corporate control, the environment and health.

Corporate control
There are many negative, hidden effects to the amazing variety of cheap value global products that the world food trade brings consumers in the rich North. Food is big business: the global trade is estimated to be worth $4 trillion dollars a year and the market is concentrated in the hands of a few powerful companies. This imbalance has been created over the last 30 years through food and agriculture policies and global trade agreements which promote trade liberalisation and the globalisation of the food economy. The quality and nutritional value of food, the livelihoods of small-scale farmers, producers, agricultural workers and community economies are all secondary concerns to the profit margin in the industrial agricultural model. The European Common Agricultural Policy (CAP) has overseen the creation of a heavily subsidised agriculture system, consisting of ever larger farms which drive down production costs through economies of scale and technical efficiency. Meanwhile, World Trade Organisation (WTO) policies have aggrieved the economic crisis in rural areas throughout the world. The liberalisation of agricultural markets, the forced opening of borders and tariff cuts have put farmers in a global system of unlimited competition in which the main beneficiaries are transnational agribusiness companies and their shareholders. The interests of small producers and farmers are ignored causing devastating effects on the livelihoods of billions.

> My warning goes out to all citizens that human beings are in an endangered situation. That uncontrolled multinational corporations and a small number of big WTO members are leading an undesirable globalisation that is inhumane, environmentally degrading, farmer-killing, and undemocratic. It should be stopped immediately. Otherwise the false logic of neoliberalism will wipe out the diversity of global agriculture and be disastrous to all human beings. (Lee Kyung Hae, South Korean farmer who killed himself at the WTO protests in Cancun in protest against unfair trade subsidies)

The tragic effect on farmers across the world is one part of the untold damage of modern day agriculture. Supermarkets have increasingly eroded local choice as smaller, independent shops struggle to compete. Wal-Mart in the US (whose UK subsidiary is Asda) is the biggest retailer in the world. Thousands of stores, including newsagents, post offices, grocers, bakers and butchers, have closed creating virtual ghost towns as the number of large out of town stores increases. These all powerful companies dictate the terms and conditions of production to millions of small farmers and suppliers who are forced to compete for a limited number of agreements to supply. For example, many orchards in the UK have been abandoned simply because the varieties of apples produced do not transport or keep well and are therefore not financially viable for supermarkets to stock. Over the last 30 years, 60 per cent of orchards in the UK have been destroyed. By 1996 the UK imported 434,000 tonnes of apples, nearly half from outside Europe.

Corporate control of food produce doesn't just stop at the supermarket or production line. Just three corporations control one quarter of the world's seed market (Monsanto, Syngenta and DuPont) and biodiversity is not high on their agenda. National seed lists in many countries make it illegal to buy and sell unusual varieties and it is prohibitively expensive to keep seeds on the list. Agribusinesses require farmers buying seed to sign contracts that prevent them saving and replanting seeds at a later date. As this is difficult to enforce, seeds are now being genetically modified to be sterile after a year in order to protect company's patents, a process known as terminator technology. While this guarantees profits, an estimated 1.4 billion farmers worldwide depend on seeds saved or exchanged with neighbours. The Chilean Rural and Indigenous Network call this copyrighting or patenting of living things 'a crime against humanity'.

Environmental impacts

The food system has become a major contributor to climate change. The emissions that a typical UK family of four are responsible for each year equals 4.2 tonnes of CO_2 from their house, 4.4 tonnes from their car, and 8 tonnes from the production, processing, packaging and distribution of the food they eat (Sustain/Elm Farm Research Centre Report 2001). As the world heads towards the peaking of oil supply, the extent that our food systems depend on fossil fuel energy will be brought in to sharp focus. Between 1950 and 1990 the world population doubled and in large part it was the much greater use of chemical (oil derived) fertilisers that allowed this. Many millions of farmers in the global south were devastated by increases in oil prices in the 1970s after the 'green revolution' had dramatically changed the way that they

grew food through a more industrial model based upon petrochemical fertilisers and pesticides. In 1940, the average farm in the USA produced 2.3 calories of food energy for every calorie of fossil energy it used. By 1974 (the last year in which anyone looked closely at this issue), that ratio was 1:1. Now it is much higher. For example 66 units of energy are consumed when flying 1 unit of carrot energy from South Africa (Manning 2004a).

Meat production systems are very energy and water intensive. Producing a kilo of beef, for example, uses three times the food energy it yields. The methane from global dairy herds has become a major source of human induced greenhouse gas emissions. Methane is a by-product of digestion for cows, sheep, goats and other livestock but it is also a potent greenhouse gas – over ten times more powerful than CO_2 over a hundred year period in terms of its 'greenhouse' effect. Global annual methane emissions from domesticated animals are thought to be about 100 million tonnes or about 15 per cent of the annual methane emissions from human activity, the others being production of fossil fuels, wet rice cultivation, biomass burning, landfills and domestic sewage. Scientists believe that current methane emissions will account for over 15 per cent of man-induced climate change over a 100 year time frame (IUCC 1993). It takes almost 800 kg of cereals (used as feed for animals) to produce the meat an average North American eats in a year. This is nearly five times more grain that a reasonably well fed African eats in a year. Arguably a switch to a vegetarian or vegan diet can do more to cut an individual's carbon footprint than many other measures.

The distances that food travels is a major issue. It can be cheaper to buy at a distant location and bring the food in (despite the cost of freight and shipping) rather than buy from local suppliers. One consequence of this is that a large proportion of road freight moves food around very long supply lines. Between 1989 and 1999 there was a 90 per cent increase in road freight movements of agricultural and food products between the UK and Europe (see DETR 2000). Rather than importing what they cannot produce themselves, many countries appear to be simply 'swapping food'. In 1997, the UK imported 126 million litres of milk and exported 270 million litres (FAO Food Balance Sheet Database 2001, see www.fao.org). One study has estimated that UK imports of food products and animal feed involved transportation by sea, air and road amounting to over 83 billion tonne-kilometres, using 1 billion litres of fuel and resulting in 4.1 million tonnes of carbon dioxide emissions (Shrybman 2000). Once inside the UK, food continues to clock up food miles, indeed food, drink and feed transportation accounts for up to 40 per cent of all UK road freight (Jones 1999).

Air freighted fruit and vegetables are a particularly fuel intensive and unsustainable trend which has impacts that go far beyond the environment. Millions of workers in

the global South are at the mercy of supermarket production schedules. Orders are dependent on previous day's sales, and so already precariously employed workers lives are dictated by volatile production schedules. There are widespread allegations of worker rights abuses (see for example the Ethical Trading Initiative report, 2003). In Kenya, women work day and night in refrigerated packing sheds producing high value goods such as bundles of asparagus shoots, miniature corn, dwarf carrots and premature leeks, tied together with a single chive. The chives and plastic trays are flown out from England to Kenya where the produce is prepared at low labour costs. They are then air-freighted back to England again, a round trip of 8500 miles (Growers' Market, Felicity Lawrence, *Guardian*, 17 May 2003).

Waste is another key environmental issue related to food. In addition to very wasteful use of oil for excessive packaging rotting food in landfill sites produces methane, a potent greenhouse gas and leachate which can contaminate groundwater supplies. Whilst around 40 per cent of waste produced in the average UK home is compostable, only 3 per cent is composted. This adds to the estimated 30 per cent of perfectly edible food a year that ends up in landfill.

Health

Malnutrition, starvation and famine remain huge issues in the twenty-first century. Conflicts and climate change are devastating small-scale food production in the global South. According to Oxfam, the number of food emergencies in Africa has nearly tripled since the mid 1980s. Meanwhile, huge tracts of land in the so-called developing world are used to produce animal feed or other crops for export. Hunger, of course, is not caused by lack of food, but by grossly unequal access to the plentiful food that exists. In the USA, there are an estimated 10 million low-income Americans who do not have enough to eat. People on low incomes are more likely to suffer and die from diet related diseases such as cancer and coronary heart diseases (Food Poverty Project 2002). To get all the calories needed in a day while spending the least money, the best bet is to go for a high fat, sugary diet and avoid fresh salads and fruit, a situation which has widespread impacts on health.

A range of other health issues, from allergies to behavioural problems in adolescents and Alzheimer's disease, have been linked to food. Non-organic vegetable produce not only has less nutritious value but it is laden with chemicals and hormones. A number of substances found in everyday foods are carcinogenic. For example, aspartame, a sweetener found in many foods, has also been linked to leukaemia and lymphoma cancer yet there is very little research carried out into these everyday foods before they are placed on the market. Every so often a food scandal or crisis erupts such as

BSE, foot-and-mouth disease or salmonella, which hints at the potential time bomb waiting to explode related to the long-term health effects of the cocktail of chemicals and drugs we consume.

Box 9.1   Hartcliffe Health and Environment Action Group (HHEAG)

In response to a damning report investigating health in Bristol, UK a group of local people set up a project to support residents in taking control of their local environment, food and health. They raised funds to install new school kitchens, and doctors can now refer people for classes on nutrition and cooking. The project also has two gardens – one open to anyone interested in learning about or growing food and another market garden with paid employees that supplies the food co-op shop.

resistance is fertile

Developing food sovereignty and taking back control of what we eat have become vital and important routes for action. Across the world, movements in urban and rural areas are fighting for the rights to their land and for food sovereignty. Although there would inevitably be less consumer choice than the artificially high levels we have today, a different food production system which prioritises short supply routes could massively cut greenhouse gas emissions, and is essential in the battle against climate change. Beyond this, if we stop buying these environmentally, socially and personally damaging foods and instead set up co-operatives, 'grow our own', build community gardens and support local farmers, then the economic, agribusiness system is starved of nourishment and weakened. Many of the ideas in this chapter are not new, indeed we don't have to look that far back in to the past to see pointers for the future. Up until the middle of the last century the practices of seed saving and swapping and organic agriculture were all commonplace.

The following sections look at four ways that people are taking back control over the food that they eat and they way it is produced: community food projects, sustainable agriculture, food co-operatives and movements for change.

Box 9.2　Fighting for Feed Sovereignty: Via Campesia

Via Campesia is an international movement, which co-ordinates organisations of small and medium-sized producers, agricultural workers, rural women and indigenous communities. It is autonomous from all political and economic organisations. Since 1992, peasant and farm leaders have organised under this banner around issues of agrarian reform, credit and external debt, technology, women's participation and rural development. Mass protests and land occupations have brought attention to destructive free trade agreements and the structural violence of corporations that transform the land into a commodity and dump subsidised foods on the markets of poor nations. These movements are not only an inspiration but also an important reminder of the need for solidarity with global struggles to challenge international institutions, such as the WTO.

Fighting for food sovereignty

The concept of food sovereignty was a term coined by Via Campesina at the 1996 World Food Summit in Rome and is defined as the right of peoples, communities and countries to define their own agricultural, pastoral, labour, fishing, food and land policies which are ecologically, socially, economically and culturally appropriate to their unique circumstances.

Growing communities: community food projects

Reclaiming land as a community resource has been part of an ongoing struggle around the world. There are many wonderful examples of community gardens, emphasising education, the production of healthy organic foods and also providing a valuable base for community interaction. Community gardens not only fulfil social needs but can also relate to the political formation of movements for social change. In the 1970s the fiscal crisis that gripped the USA impacted heavily on inner city areas. In New York, dismayed by government inaction and the increasing number of vacant lots, crumbling buildings and rubbish strewn streets, a group of people known as the 'green guerrillas' began to set up community gardens. By the early 1990s the network of 850 community gardens on abandoned plots of land in New

Figure 9.1   Resistance is fertile. Brazil: Indigenous people reclaiming their traditional lands and cutting down eucalyptus trees owned by Aracruz Cellulose

Source: Carbon Tradewatch.

York had become an important social resource, providing a place to meet and talk, repair broken bikes, play music, and grow food and herbal medicines.

> The gardens became catalysts for community development. Once people succeeded with the garden, they went on to other things like fixing the schools, housing, creating jobs, whatever was needed. (Ferguson, 1999)

However by the late 1990s, the mayor, Rudi Giluani, began to pursue an aggressive policy of gentrification in inner city areas. A series of high profile demonstrations and campaigns took place to resist evictions, but today only 50 community gardens remain in New York. However, the idea of guerrilla gardening has spread across the world. Your imagination is the only limitation in looking for places to grow food – railway embankments, back gardens, golf courses, roofs, car parks, overgrown areas, and cracks in the pavement can all become areas to grow edible crops.

Community gardens show that urban food production is possible, but making food accessible to people on a wide scale is a major challenge. Price and convenience are often the major determinants of what people buy and many areas are fresh food

Box 9.3   Can Mas Deu, Barcelona

Can Mas Deu is a squatted social centre, home to around 25 people on the outskirts of Barcelona. Since 2001 the old hospital building's finca (estate) which had stood empty for over 50 years, has been reclaimed, the ancient irrigation system has been restored and now the terraces are bursting with vegetables, herbs and flowers. As well as providing food for the house there are over 100 people who are involved in the Horts Comunitaris or Community Gardens. Notices around the neighbourhood invited anyone to take on a plot, provided they were interested in cultivating food organically and prepared to embark on a journey of collective work, learning and skill sharing. There has been a waiting list for plots ever since. It has been an inspiring experience, not only for the opportunity to learn about growing food but also the interchange of knowledge and skills between generations and nationalities.

Figure 9.2   The Cre8 Summit Community Garden, Glasgow, located on the site of the proposed M74 motorway extension

Source: Cre8 Summit.

deserts with no greengrocers. Growing at home in window boxes, containers or small gardens is a vital response. A very small area can supply fresh leaves, beans and potatoes. For many people gardens are a symbol of self-reliance rather than dependence on a system to which they have no control. 'Ecological footprint' refers to the amount of land and water area a human would hypothetically need to provide the resources required to support itself and to absorb its wastes. Footprinting is used around the globe to measure the environmental sustainability of an individual, organisation or entire nations (see, for example, www.ecofoot.org). If we are truly

to reduce our ecological footprints, then we will have to redesign both our urban and rural spaces to maximise food production. Below the concrete there is a garden!

Sustainable and organic agriculture

Taking back control of our lives involves moving rapidly away from industrial agricultural models and towards sustainable farming practices. Sustainable agriculture is farming that maintains the natural environment and sustains resources whilst respecting all involved, from farm workers and consumers to the animals raised for food. Despite the onslaught of intensive agricultural models some traditional farming practices have survived. The last decade has seen a resurgence in interest from both consumers and farmers and an increase in research and experimentation in sustainable farming practices. Sustainable agriculture is characterised by its emphasis on crop diversity and rotation, favouring small and medium-sized farms and prioritising staple crops rather than cash crops for export. It uses natural systems and cycles to grow crops, improve yields and reduce the needs for pesticides and chemical inputs. Organic agriculture also cuts the amount of oil energy in crops as long as they are produced locally.

> *Box 9.4   Sustainability Cuban style: Los Jardineros Urbanos (Urban Gardens)*
>
> *In the residential barrio of Miramar in Havana – hidden amongst the concrete is a patch of land lush with vibrant green. The urban garden, one of the first in Havana, started 15 years ago and was given by the government to support the local community. The 2–3 acre site includes a polytunnel, community shop and small research unit. The vegetable beds are arranged in raised strips and full of flourishing vegetables, fruits, flowers, house plants and herbs. At regular intervals along the rows, metal plates are covered in liquid solutions to attract certain insects and deter other pests that might damage the crops. The gardens produce lettuce, cabbages, herbs and peppers all the year round as well as more seasonal vegetables which are given to the local schools and sold in the community shop. Fifty per cent of the profits go to the state and the workers in the garden and shop take the rest. Volunteers come from all over the world to work in this garden as well as Cubans who come for advice on setting up their own community gardens.*

Cuba is an enlightening example of a country that has fully embraced sustainability in food production. In the early 1990s, when the Soviet Union collapsed Cuba's financial support dried up and the country was faced with widespread shortages. With few options to import food given the stringency of the US embargo, Cuba converted almost entirely to an organic, non oil dependent, production system within ten years. The methods have borne some amazing results, not only in terms of food production but also in the development of a more personalised food culture, woven deeply into patterns of food consumption, nutrition and community. Farmers and urban citizens dedicated themselves to meeting food demands and urban plots and parcels of land that had formerly operated as cane plantations for the sugar industry were turned over for domestic food production. In 2002, Cuba produced 3.2 million tons of food on more than 29,000 urban farms and gardens (Barclay 2003).

Alternative agricultural systems can create more equal relationships between the environment, community and producers. An example which has blossomed over the last decade are Community Supported Agriculture Schemes (CSAs). It is a tall order for everybody to be active in their food production and so CSAs act as a bridge between community and sustainable agriculture. For example, Stroud Community Agriculture in the UK employ the equivalent of one full-time farmer and the 50 members collect vegetables each week and take a share of the meat. Importantly, the consumers share the risk, their regular contributions pay the wages of farm workers, and the yields are shared out equally.

Food co-operatives

Going beyond vegetable produce, to drive down costs of ethically sourced staples, such as rice and pulses, and to step away from dependence on supermarkets many people turn to food consumer co-operatives. These are worker or customer owned businesses that provide high quality and value food to their members. Robert Owen, Welsh industrialist and socialist and one of the founders of the co-operative movement, believed in putting his workers in a high quality environment with access to education for themselves and their children. He had the idea of forming 'villages of co-operation' where workers would pull themselves out of poverty by growing their own food, making their own clothes and ultimately becoming self-governing. Food co-operatives are one way of self-organising that have become widespread, along with housing, workers, renewable energy, social care, banking and agricultural co-operatives.

There are a number of benefits to setting up a food co-operative: they can reduce food costs, improve nutrition and allow members to negotiate directly with grower or producer. Large whole food, wholesale co-operatives supply smaller local food

co-operatives and members decide on the pricing of the goods. The 'Fruity Nutters' co-operative in the UK add 5p to organic products, but 5 per cent to non-organic goods, thus subsidising organic foods and making them more accessible to people on lower incomes. Any profit from the co-operative covers expenses, and any surplus goes to good causes. Co-operatives can achieve lower prices than supermarkets, not only by buying direct, but also by dividing up bulk orders themselves, thus avoiding the financial and environmental costs of excessive amounts of packaging. Food co-operatives have enormous potential for expansion. In Japan, one in five people are part of a consumer co-operative. In the UK in the year 2004–05 UK health food wholesalers and shops reported a rise of 35 per cent in sales indicative of an increased awareness of health and environmental concerns (Union of Co-operative Enterprises 2006).

Nourishing movements for change

The formation of cooking collectives and community kitchens is another way that food consumption can be more sustainable and sociable. Cooking collectively at social centres, protest camps, mobilisations and gatherings is often done by grassroots, non-profit orientated groups. Unlike commercial caterers they are based on the spirit of mutual aid where people help with chopping vegetables and washing up. There are numerous kitchen collectives across the world that run on these principles. The Dutch collective Rampenplan, for example, have been running for over 20 years and can provide locally sourced organic food for up to 5000 people. Other collectives include the Anarchist Teapot, who as well as cooking for events help to run a permanent cafe

Box 9.5   Food Not Bombs

Food Not Bombs is a loose network that started in the USA which recycle large quantities of food in this way, cook it up and distribute it for free. It is a radical political act in today's society to distribute this food and as a result, Food Not Bombs groups have met with massive police repression. By the year 2000 there had been 1000 arrests in San Francisco alone, vehicles were impounded, people were beaten, detained and even jailed for participating in Food Not Bombs. However, in 2000 there were 175 Food Not Bombs groups in the world, distributing food with no strings attached but 'as a celebration of life against death'.

four times a week at the Cowley Club in Brighton, UK providing cheap and affordable food. These infrastructures are a valuable resource to weave food and consumption into our lives, and sharing food together is a time for talking and connecting with each other.

Freeganism 'We'll eat your scrap, but we won't buy your crap' (Freeganism slogan). The term freeganism refers to a novel and widespread approach to delinking food consumption from corporate control . As one activist put it: 'It seeks to lessen rampant over consumption, environmental destruction, waste, and exploitation in the developed world'. Freegans get free food by pulling it out of the rubbish, a practice known as dumpster diving, skipping or recycling. Once you have got used to the idea of looking in bins freeganism allows you to avoid spending money on products that exploit the world's resources, contribute to urban sprawl, treat workers unfairly or disregard animal rights. Ample amounts of clean, edible food can be found in the bins of restaurants, supermarkets and other food-related industries and distributed to a wider net of people. The vast majority is still fine to eat, but has been thrown away due to strict hygiene and stock rotation laws.

facing up to the limitations

Access to land
The benefits of local, community based food production models are enormous but there are of course limitations. Small-scale growing projects demand a sustained amount of time, hard work and initiative from a group of committed people. Finding land on which to grow food can also be a major challenge due to a historic concentration of ownership, restrictive planning laws and the fact that agricultural buildings and land are increasingly more valuable when sold off as second homes or development land than as small-scale farms. Because local production works on completely different principles and strategies than the heavily subsidised economies of scale of industrial agriculture, competing with the international financial food market is virtually impossible. However, as the world moves towards peak oil scenarios, coupled with growing consumer demand and a rejection of the corporate control of food, the possibility of small-scale production is greatly enhanced.

Changing cultures
As with all topics in this book, the question of changing our individual desires and expectations is a big stumbling block. Making things accessible and affordable are the biggest hurdles towards changing what people eat. In addition, adapting our

bodies and taste buds to a new diet of food fresh from the allotment, grains and pulses from the food co-operative or strange seasonal vegetables can take a while. Cheap but tasty processed foods are more socially acceptable, largely due to fat, sugar, salt and flavourings, and the fact that they are also intensively promoted by the manufacturers as desirable foods to eat. The key is shifting the culture of food away from a 'McDonalds culture' part of which is challenging the idea that children have an innate preference for chips. Despite some successes, like celebrity chefs who encourage schools to introduce cheap, healthy food, many schools remain locked into long purchasing contracts with large, distant food contractors, such as Scolarest in the UK, who have monopoly contracts to ship in processed food. Education about the impacts of the food we eat on the environment and our health is crucial to ensure that from an early age the important issues of eating habits and diet are addressed.

Turning ideas into reality

Often, our lack of skills can hold us back in implementing our ideas. In response to this, there are an increasing number of growing projects for children, courses in organic gardening, permaculture and sustainable land use. Learning to grow our own food is a never-ending process as we adapt to new conditions and incorporate new ideas. With co-operation, education and skill sharing enormously successful projects can be created which are nourishing and fulfilling.

ways forward

> We are planting the seeds of a society where ordinary people are in control of their land, their resources, their food and their decision making. (Flier handed out at the Guerrilla Gardening event, London's Parliament Square, May 2001)

In this late capitalist society that has brought so much financial wealth, we are witnessing the devastating impacts of the corporate control of foods and industrial agriculture. In the last decade there has been a wave of popular responses: growing your own food, farmers' markets, fair trade, co-operatives, seed saving projects, allotments and traditional organic farming practices are all experiencing a renaissance. But there is still a long way to go to make these accessible and relevant to everyone. Despite the enormity of the challenges, connecting food production and consumption together can strengthen, green and nourish our communities. Most importantly, we must remember that our current food system needs to be changed as it is vulnerable, unsustainable and inefficient as well as being directly linked to

wars over oil and global exploitation. *This chapter* has aimed to bring some of these issues into focus and explore alternatives to destructive food practices. It is a call to act – because we are what we eat.

Alice Cutler and Kim Bryan both campaign and facilitate educational projects around climate change and sustainability issues. Alice has been involved with several community garden projects and is a regular cook at the Cowley Club cafe in the Cowley Social Centre in Brighton. Kim is a trained permaculture designer and teacher with experience working in organic, community gardens and a number of different land projects including Escanda in Spain (see www.escanda.org).

10 how to set up a community garden

Alice Cutler and Kim Bryan

This guide is for anyone, anywhere who has walked past a derelict bit of land or has seen an empty allotment and imagined ... what if it were full of life and activity? Planting a garden is a lot about dreaming, visioning and creating. It can also be a lot of work; sometimes things don't grow, someone pulls out the carrots or slugs eat all the cabbages. But when things do grow and you can eat the results, seeing places transformed is amazingly rewarding.

Community gardens are small plots of land used for growing food which are organised along collective lines, usually for the benefit of the community. They have a huge range of potentially beneficial functions. They can:

- Provide fresh, organic vegetables, fruits and herbs on your doorstep (or down the road) offering health, environmental and social benefits.
- Bring people together to work on something which teaches useful skills, keeps people fit and healthy, and puts them back in touch with natural cycles and seasons.
- Be a positive, practical demonstration of more sustainable living and 'doing it ourselves'.
- Turn around abandoned land and create a beautiful space which increases pride in the neighbourhood.
- Provide a home for birds, insects, newts, frogs and other wildlife as well as a space for humans to enjoy them.
- Lead to increased environmental awareness.
- Benefit people with learning difficulties, the elderly or people with behavioural problems through therapeutic work, positive activities and sensory gardens.
- Preserve local varieties and biodiversity.
- Provide spaces for kids, workshops for arts and crafts, bike repairs, social events or just a nice space to sit and chat.

setting up a community garden

There are lots of ways to locate potential plots: speak to and visit existing garden projects, the allotment or green spaces officer at the council or check out the land registry to find out if there are any abandoned bits of land. There are many 'squatted' community gardens where disused land is transformed into an urban oasis. In Glasgow, the Cre8 garden is situated in the way of a proposed motorway development and is a positive, visible community based protest. Gardens can take a few years to establish themselves and many choose plots with longevity in mind. Check out the community garden and allotment resources list at the end of this chapter for details of support and potential funding sources.

Dreaming and scheming

A community garden means making lots of collective decisions, so establishing how you will organise is important. As well as deciding what you want to grow (vegetables, flowers, fruit trees) you also need to think about what your main aims are (to produce food, educational, a calm place for people to relax) and who the garden is for. Agree

Box 10.1 Moulsecoomb Forest Garden Community Food Project, Brighton

'We started in 1994, and were rent free for the first year because the plot had been derelict for 20 years. We began by clearing the area and digging ditches to stop the soil being washed away as it's a very steep plot, constantly adding compost and manure to try and improve the land. Over time we started regular '' open to everyone, no gardening experience necessary workdays, '' and became a charity – putting on regular events. Now there are seven plots, organic gardening, forest gardening, and an outlawed vegetable garden where we grow weird and wonderful heritage varieties not on the national seed list such as the Cherokee trail of tears, a French climbing bean. We have left areas open for wildlife, picnics and baking potatoes. We identify all plants that we weed and have found that nearly 95 per cent of plants have some use for us, one meal we had recently contained 26 different types of plant' (Warren Carter, Seedy Business).

on whether all or only some of the produce and tools will be shared as all these decisions affect your design. Come up with a name and think of the things you will need to create the garden (funding, materials to build with, structures) and divide up tasks and responsibilities. Consider logistics such as how can people contact the group, how much money you have got, how much you will need and who will look after the finances.

Ways of getting people involved

Once a garden exists, local residents are likely to stop and ask what it's all about, but in order to engage with people open days are great ways to entice people.

- Food: Invite people to a picnic or barbecue to be held on the land. It's a great way to meet people, use and appreciate the land and build a community sense.
- Open to all 'no experience necessary' work days: There will be lots of work clearing overgrown brambles or rubbish, preparing the beds, planting seeds, building sheds, setting up watering systems and a whole host more. Work days are a great way to share skills and get a lot done. Also, try non-work days, where people can nose about without feeling obliged to grab a shovel, such as bug hunts for kids, Halloween parties, etc.
- Give out excess produce: When there is a bumper crop of fresh organic vegetable sharing any excess with people who live nearby is a good way of letting them see what you are doing and getting them on side!

Up until recently, back garden vegetable patches and allotments were very common, and someone who has had 50 years experience growing vegetables can be a gold mine of information. It's worth approaching people that have lived in the area for a while. They might know what the land was used for, soil type, local weather and what grows well there.

Design ideas

One of the keys to success with gardening is knowing the lay of the land, weather, soil acidity and having a design that makes sense to that place – it's important to take the time to do a land observation. The following is a basic design workshop which is a good way to create a collective vision of what you want to do in a few hours. It could be expanded to fill a whole day or a smaller group could expand on the plans. The designs could be displayed in a public place for comments and to get more people interested in the project.

Box 10.2   Design Workshop for Community Garden

1. Introduce the idea and share ideas about all the benefits of a community garden.
2. Ideastorm the things people would like to see in the garden such as: vegetable patch, sensory garden, wildlife areas/pond, leisure/barbecue area, comfrey/nettle/wildflower patch, kids area, workshop area, seating/shaded area, shed/polytunnel/greenhouse/indoor area for bad weather, security hedges, raised beds so that elderly and disabled people can also participate in the garden.
3. A design tool frequently used by organic and permaculture gardeners known as OBREDIM helps to plan the design. It stands for Observations, Boundaries, Resources, Evaluation, Design, Implementation and Maintenance.

Observations. This stage is potentially endless as there will always be things changing. In small groups fill in an observation sheet looking for the following:

- Access to the land
- Plants already growing – this can help you work out loads of things about the land from soil quality and type, humidity, etc.
- Any signs of wildlife present
- Sun and prevailing wind direction
- Water supply and possible water collection points
- Shaded areas from buildings/trees
- Slopes and rough/smooth/rocky areas
- Wet/dry/swampy areas
- Signs of contamination/nearby roads.

Pool the information that everyone has found on to a large, rough map of the site.

Boundaries. What boundaries are there to the land, both physically (waterways, hedges, trees, existing structures, slopes) and more generally (financial, opinions of people nearby, etc.).

Resources. What resources exist? Plants, water points, soil, 'rubbish' that could be recycled as plant pots, materials for mulching, people.

Evaluation. Ask the group to get back into their smaller groups and draw their own site maps with what they have observed.

Design. Start to design the garden on site maps. Present the different design ideas and discuss them. Think about what is feasible and how these ideas can be implemented.

The next stages take months and years to develop, but hopefully the workshop will have stimulated interest and imagination and you will see the people at the next community garden work day.

Implementation. Once you have volunteers you can make a list of what needs to be done: building a compost bin, preparing the land, general maintenance work, sourcing seeds, etc. You will more than likely need seed trays, tools, string, thick material, old carpet and wood so start gathering useful materials from wherever you can – car boot sales, the skip and the dump are all good places to find things. Developing a feasible work plan that takes into account everybody's other commitments is important.

Maintenance. In the next section we will look at ideas for getting the garden going and growing.

how does your garden grow? ideas for your garden

Mulching

Covering the land you want to grow with mulch is an excellent way to start off a community garden – it's not technical but it has immediate benefits and gets people thinking about soil, water, light and bugs. Many materials can be reused as mulch such as straw, chipped bark, stable sweepings, lawn clippings, sawdust, newspapers, cardboard, leaf mould, seaweed, pine needles, nutshells, clothing, stones, old carpet and roofing underfelt. Mulching has many functions:

- Prevents weeds from growing as there is no light

- Keeps the soil at a more constant temperature
- Prevents water from evaporating and keeps the soil moist (i.e. less watering)
- Prevents vital minerals from being zapped by strong sun
- Improves soils (biodegradable mulches) when breaks down
- Defines areas that are to be planted and pathways.

Start mulching by laying down a layer of wet newspapers and then placing material on top of it to a depth of 6 inches. Make sure that all the existing vegetation is covered. When the mulch is in place, you are ready to sow by tearing a hole in the bottom layer of newspaper, adding a handful of ripe compost, and planting the seed or seedling in the small mound. When the mulch breaks down it can be dug into the soil and helps improve soil quality. Clover, alfalfa or black plastic are also commonly used as mulch.

Crop rotation

This is the practice of planting crops in a different plot each year. There are a number of reasons to do this: it prevents diseases building up in the soil, controls weeds
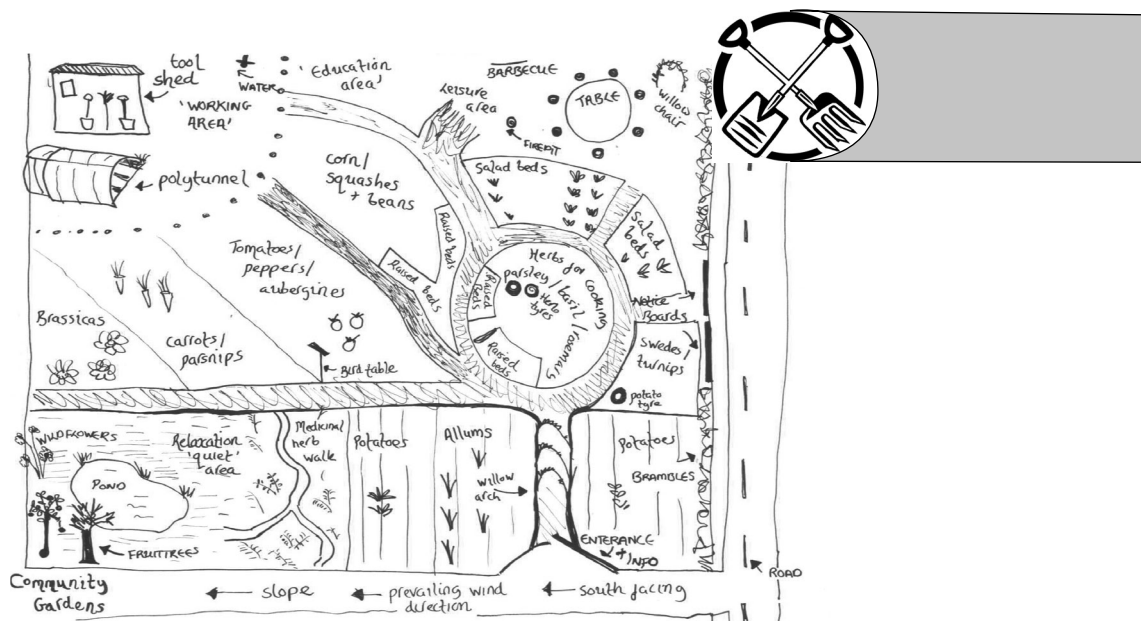

Figure 10.1   Design for a community garden

Source: Alice Cutler and Kim Bryan.

by regularly changing their growing conditions and prevents the soil becoming exhausted.
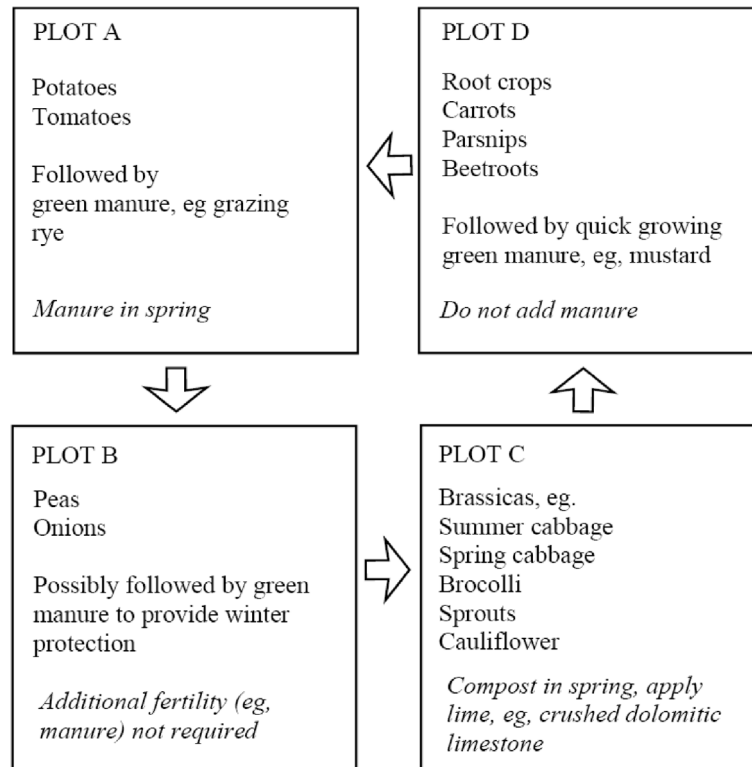
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┌─────────────────────────┐        ┌─────────────────────────┐
│ PLOT A                  │        │ PLOT D                  │
│                         │        │                         │
│ Potatoes                │        │ Root crops              │
│ Tomatoes                │   ⇦    │ Carrots                 │
│                         │        │ Parsnips                │
│ Followed by             │        │ Beetroots               │
│ green manure, eg grazing│        │                         │
│ rye                     │        │ Followed by quick growing│
│                         │        │ green manure, eg, mustard│
│                         │        │                         │
│ Manure in spring        │        │ Do not add manure       │
└─────────────────────────┘        └─────────────────────────┘

            ⇩                                  ⇧

┌─────────────────────────┐        ┌─────────────────────────┐
│ PLOT B                  │        │ PLOT C                  │
│                         │        │                         │
│ Peas                    │        │ Brassicas, eg.          │
│ Onions                  │        │ Summer cabbage          │
│                         │   ⇨    │ Spring cabbage          │
│ Possibly followed by green│      │ Brocolli                │
│ manure to provide winter│        │ Sprouts                 │
│ protection              │        │ Cauliflower             │
│                         │        │                         │
│ Additional fertility (eg,│       │ Compost in spring, apply│
│ manure) not required    │        │ lime, eg, crushed dolomitic│
│                         │        │ limestone               │
└─────────────────────────┘        └─────────────────────────┘
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Figure 10.2   Crop rotation. An example of a typical four year system

Source: Alice Cutler and Kim Bryan.

Tiered growing

Often we think about gardening taking place on the ground but by being a bit creative it's possible to grow things all over the place. Especially in smaller gardens tiered plants look great as well as maximising space. One well known example is 'the three sisters' (corn, squashes and beans) which all grow really well together. Plant the corn and beans first and let them establish themselves, and after around three weeks plant out the squash. The corn grows up to about 2 metres, the beans wind themselves around the maize as they need to climb and the squashes grow on the ground. It's a perfect relationship.

Potato tyres

Take an old car tyre, fill it with a nice healthy soil and plant a couple of potatoes that have seeded. When you see green leaves appearing, place another car tyre on top of the first one and half fill that with soil. As soon as green leaves appear again, fill the rest of the tyre. When green leaves appear, place another car tyre on top of the first two, and so on. All being well, when the white flowers die back on the plant (normally 5 car tyres high) you should have a bumper crop of potatoes. The tyres can also be painted to make interesting garden sculptures.

Archways

Climbers can be trained along willow rods of equal lengths formed into an archway. Cucumbers, beans, and tomatoes also like growing up walls, sheds, fences and trees. Train the plant up the willow and during the summer you will have created a shady, cool archway.

Companion planting

This is the practice of planting species in close proximity to each other so that they benefit each other. It works for several reasons; some plants are more attractive to pests than others and 'trap' insects stopping them from eating other more needed or useful crops. Plants such as peas, beans and clover keep nitrogen in the soil which other plants need to grow. Other plants exude chemicals that suppress or repel pests and protect neighbouring plants. Tall-growing, sun-loving plants may share space with lower-growing, shade-tolerant species, resulting in higher total yields from the land. They can also provide a windbreak for more vulnerable species. Companion planting works because it encourages diversity. The more you mix crops and varieties the less chance you have of losing all your crop. For example, the cabbage family is well companioned by aromatic herbs, celery, beets, onion family, chamomile, spinach and chard while tomatoes grow well when planted near nasturtium, marigold, asparagus, carrot, parsley and cucumber.

Making simple garden compost

Composting kitchen waste used to be commonplace and is a really important way to cut emissions of methane from landfill sites. Even if people don't have time to work in the garden, many would be happy to see their vegetable peel turned into a lovely rich hummus.

You need a site that's at least 1 m by 1 m and a container (see below). Start by spreading a layer that is several inches thick of coarse, dry brown stuff, such as leaves,

twigs or old newspapers, and top that with several inches of green stuff (grass or plant cuttings). Add a thin layer of soil. Add a layer of brown stuff. Keep layering the compost heap in the same way and every couple of weeks use a garden fork or shovel to turn the pile. If you turn the pile every couple of weeks and keep it moist, you will begin to see earthworms throughout the pile and the centre of the pile will turn into black, crumbly, sweet smelling soil. When you have enough finished compost in the pile to use in your garden, shovel out the finished compost and start your next pile with any material that hadn't fully decomposed in the previous one

Building a compost bin

Many councils will provide free bins but it's also easy enough to build your own. Wire mesh compost bins are versatile, inexpensive and easy to construct. A circular wire mesh bin may be made from poultry wire, hardware cloth or heavy wire mesh.
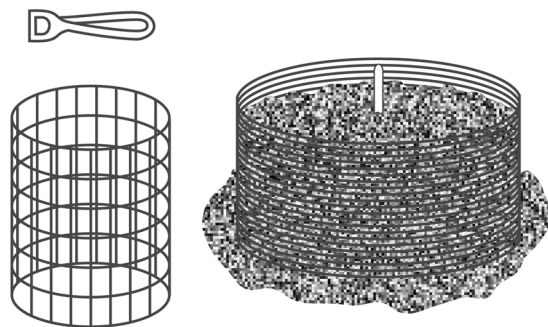
Figure 10.3   Circular wiremesh compost bin

Source: Alice Cutler and Kim Bryan.

Four wooden pallets can also be hinged or wired together to construct a compost bin. The bin should be constructed with at least one removable side so that materials can be turned easily.

Box 10.3   Composting Trouble shooting

Rotten odour = Not enough air; pile too wet. Try turning pile, adding coarse, dry materials (straw, corn stalks, etc.).
Ammonia odour = Too many greens (excessive nitrogen/lack of carbon). Add browns (straw, paper or sawdust).
Rats = Cooked food in compost bins.

(Adapted from Composting for All website by Nicky Scott).
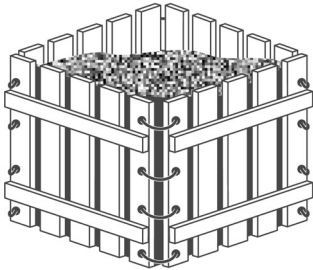
Figure 10.4   Wooden pallet compost bin

Source: Alice Cutler and Kim Bryan.

the problem is the solution

'The problem is the solution' is a permaculture principle which states that by anticipating problems we can learn how to deal with them – we can turn problems to our advantage by being intent on creating solutions. Here we look at some common problems and solutions.

Poor quality soil

Soil type and quality are arguably the biggest determinants of your crops success. If the land has been steadily depleted over the years by the application of pesticides and fertilisers or is too stony, sandy or acidic there are a number of things that can be done to help the soil regenerate. Green manures (nutritional rich plants), such as

Box 10.4   Case Study: Community Composting Schemes

Micro processing of your own waste is about taking direct responsibility for your actions. Yet many people do not have the space for compost bins. Community composting schemes are the perfect solution and provide compost for local parks and gardens. A successful group in London (East London Community Recycling Project, ELCRP) promoted their project as a way to reduce the smell of rubbish in estate stairwells and have had a very high take up rate – 80 per cent in some cases. As well as encouraging residents to keep their food waste and advising them how to store it, the scheme offers regular doorstep collections.
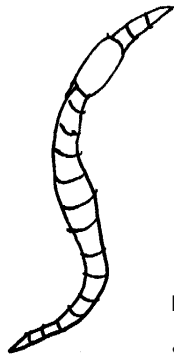
alfalfa and clover, grow quickly providing a 'living' mulch that helps to recondition soil depleted by putting in valuable nutrients. Applying seaweed, which is rich in all trace elements and minerals, also helps. Earthworms improve soil fertility through aeration, drainage and by incorporating organic matter. Adding lots of compost will increase their numbers.

Figure 10.5   Earthworm

Source: Graham Burnett.

Contamination

Find out as much as you can about what the land has been used for in the past. If the land is contaminated it can be dangerous to eat foods grown there. Identify the source of contamination and assess whether it is liable to reoccur. Sources are most likely air, upstream water, imported products and landfill. Solutions are dependent on the type and severity of the contamination. Trees with high water uptake, such as poplars and willows, absorb toxic water through their root systems and break down toxic compounds inside tree tissue. Mustard plants and corn are able to absorb heavy metals and pollutants from the soil. Raised beds using large plastic/porcelain/wooden tubs and filled with soil from elsewhere can be built in order to grow food. Although they require more watering, raised beds are also good for kids, the elderly and people with mobility problems as they require less bending and are less easily trampled.

A weed is just a plant in the wrong place!

Nettles probably make most people think of stings, but the nettle is a great example of a common plant considered by many to be a weed which to those in the know is a multifunctional miracle plant! Nettles attract butterflies and moths (which eat aphids, which eat cabbages and beans), have a high vitamin C content, are a compost activator, can be used to make rope fibre, have many health

Figure 10.6   Stinging nettle (*Urtica dioica*)

Source: Graham Burnett.

benefits as a herbal medicine/tea, make an effective liquid fertiliser and can be used to make soup.

Fat hen is entirely edible and can be used as a spinach substitute or eaten raw in salads. The leaves are applied as a wash or poultice to insect bites, sunstroke, rheumatic joints and swollen feet, a green dye is obtained from the young shoots while the crushed fresh roots are a mild soap substitute.

Figure 10.7   Fat hen (*Chenopodium alba*)

Source: Graham Burnett.

Pests

You will inevitably be sharing the plot with a variety of other bugs and grubs. But even those that are pests have their part to play, such as providing a source of food for beneficial insects; so aim to manage them rather than wipe them out. Many conventional pesticides kill everything, good and bad. Provide habitats to attract insects by planting small flowering plants. Keep down dust and provide water as it attracts insects. An old baby bath can be a replacement pond and hedges provide a barrier to prevent dust and pollution settling on plants. Learning to recognise who is who will help. For example, discourage millipedes, which eat bulbs, potatoes and plant roots, but encourage centipedes, which are fast moving predators that live on small slugs and other soil pests.

Aphids are tiny insects that form colonies that suck sap. The larvae in particular will debilitate plants especially broad beans and brassicas but they are eaten by ladybirds.

Figure 10.8   Aphid

Source: Graham Burnett.

Figure 10.9   Ladybird

Source: Graham Burnett.

Any gardener will tell you how much they dislike slugs as they chomp their way through a garden eating seedlings and plants. Here are some tried and tested methods for slug management in the garden:

- Slugs love certain plants and totally ignore others. Ones they love include any type of squash or courgette and mint. They hate onions and garlic (maybe it's a breath thing!). Work out which ones they particularly go for and concentrate slug defences in those areas. Larger slugs prefer dead vegetation and are less of a problem.
- Slugs can hide under the mulch. Go slug hunting on wet days as this is the type of weather they love the most and will come out from under the mulch.
- The sweet intoxicating smell of flat beer entices slugs and they come in their droves, drowning drunk must be better than drowning sober.
- A plastic bottle with the top cut off can be used to protect plants from slugs.
- Slugs cannot crawl over salt and ash so try sprinkling around crops.
- Ground beetles are also predators of slugs, mites and other pests. Create a habitat for them by leaving pieces of wood for them to shelter under.
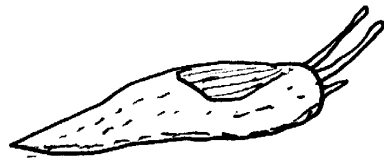
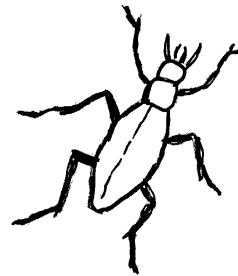Figure 10.10   Slug

Source: Graham Burnett.

Figure 10.11   Beetle

Source: Graham Burnett.

Unwelcome guests of the human variety

Whether kids really are worse these days or it just seems that way, it's a sad fact that community gardens can be an easy target for bored kids. Many community gardens and allotments are protected by metal fences with spikes, which not only characterises a fearful and defensive society, but can also be seen as a challenge to bored young people looking for something to do. There's no easy answer to the carrot pulling youth, a much maligned and misunderstood part of any community. Remember, people that feel excluded from the garden won't respect it. Try making the garden an obvious community project through signs, lots of open invitations and inclusive design and implementation processes. Find space and offer to co-organise events that they may come to such as DJing or graffiti competitions. Invite the local school for a tour or work session and offer neighbours produce in return for a watchful

eye. Red tomatoes falling from the vines are tempting trouble, so harvest all ripe fruit and vegetables on a daily basis. Fences serve to mark possession of a property as well as prevent entry. Nothing short of razor wire and land mines will keep out a really determined person, short picket fences or chicken wire will suffice to keep out dogs. Make fences attractive but thorny by planting fruit bushes such gooseberries or blackberries.

conclusions

Living gardens are places of learning, social contact and connection and are fun, practical and very necessary. As well as all of the benefits it brings to the environment and your community it can also benefit you – by being outdoors, digging, planting and taking time to observe patterns and changes in nature, seeing seasons change from one to the other. Everyone benefits from a connection with nature, but it's something that can frequently be put on the back-burner due to the stresses of everyday life. Urban areas have lots of energetic people who, when putting their minds and hearts together, can create beautiful, healthy, living environments. And bear in mind these golden rules: start small, build up gradually, take it easy and enjoy it!

Alice Cutler and Kim Bryan both campaign and facilitate educational projects around climate change and sustainability issues. Alice has been involved with several community garden projects and is a regular cook at the Cowley Club cafe in the Cowley Social Centre in Brighton. Kim is a trained permaculture designer and teacher with experience working in organic, community gardens and a number of different land projects including Escanda in Spain (see www.escanda.org). Many thanks to all the people that contributed to this chapter, particularly Ruth and Graham Burnett.

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Websites

American Community Gardening Association www.communitygarden.org (A superb website with lots of hands-on advice and publications.)

Can Madeu Social Centre www.canmasdeu.net

Community Composting Network www.communitycompost.org (Supports projects and has a library of books, display materials, presentation materials and videos.)

Community Supported Agriculture Scheme www.hillandhollowfarm.com/csa.html

Composting for All www.savvygardener.com/Features/composting.html

East London Community Recycling Project www.elcrp-recycling.com

Food Agricultural Organisation www.fao.org

Food Not Bombs www.fnbnews.org

Guerilla Gardeners www.guerillagardening.org

Hartcliffe Health and Environment Action Group www.hheag.org.uk

Hedgehogs www.uksafari.com (Adopt a hedgehog.)

Institute for Agriculture and Trade Policy www.iatp.org

International Movement for Food Sovereignty www.viacampensina.org

Landless Peasant Movement: Brazil www.mstbrazil.org

Moulsecoomb Forest Garden and Wildlife Project www.seedybusiness.org

National Allotments Association UK www.nslag.org.uk (For support and local information.)

National Food Alliance Food Poverty Project www.sustainweb.org/poverty_index.asp

Permaculture Association UK www.permaculture.org.uk (For a comprehensive list of permaculture courses, online resources and links.)

Primalseeds www.primalseeds.org.uk (Network to protect biodiversity and create food security.)

Slow Food Movement www.slowmovement.com

Sustain www.sustainweb.org (Alliance for better food and farming.)

Union of Co-operative Enterprises www.cooperatives-uk.coop

Wwoof (Willing Workers on Organic Farms) www.wwoof.org (Database of organic farms; welcomes volunteers.)