

Earth

Logic



Gardening

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Earth Logic Gardening

A practical guide to growing ecological,
social, cultural and economic change

Kate Fletcher & Mathilda Tham

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PART I Introduction

This book started with a conversation in the autumn of 2020. It was a conversation between Kate and Mathilda, long time collaborators, friends and authors of these pages. On our mind was the future direction of our project, *Earth Logic*, concerned with radical systemic ecological, social as well as economic and cultural change. The question we were asking ourselves was ‘how can we make Earth Logic work as hard as possible for change?’

Earth Logic began as a radical plan for systems change in the fashion sector, and was launched during London Fashion Week in February 2020. It articulated a new purpose for the fashion sector – planetary health – putting forward a new logic, Earth Logic, to replace the logic of economic growth that so dominates fashion (and other sectors) today. The onset of Covid-19 pandemic meant that the schedule of in-person live events that was planned to launch Earth Logic at multiple locations across the UK had to be abandoned. Instead we moved the events online and went on a ‘digital tour’ with a global audience. The response was almost overwhelming. Since its release, the Earth Logic Fashion Action Research Plan (to give it its full title) has reached over a million people worldwide and is now available in four languages. It has shocked, provoked, angered and excited. It has been read, dissected and debated by people in the fashion industry, in education, the media, political circles, and the public at large. It has directly influenced a raft of new projects around strategy, communication, learning, developing new policy among others. It has delivered on its intention to be a radical invitation to all fashion stakeholders.

We think it is fair to say that Earth Logic has opened up a new space for imagining fashion outside the context of economic growth. Indeed, we have heard people express a sense of relief that Earth Logic both calls out the impossibility of combining real change work with the drive for continuously increasing economic growth and shows an alternative set of routes forward: “Finally, the elephant in the room is acknowledged and at long last we can get down to the real work.” Over and again the relevance of Earth Logic for sectors other than fashion has been pointed out, with people suggesting its direct applicability to the media, to the car industry, food systems, to tourism, to housing...

And that is where our conversation, on a crisp October day in the north of England started. Earth Logic is a resonant and useful framework; we had seen that. It is a powerful idea, articulated as an alternative to growth logic, and where the health of the Earth guides all activity. We understood that what was needed now was to turn this idea into action. So, as we took our coffee cups outside and stepped into the garden to enjoy the low autumn sun, we asked ourselves, how can we cultivate Earth Logic ideas into action? How can this be relevant to everyone?

With one foot in the untidy vegetable patch bordered with brambles, we talked about the tendency for organisations to outsource sustainability thinking to a consultancy, or for citizens to try to ‘buy’ sustainability from a brand, and how these are a central part of the mindset or paradigm of human (and specifically western) exceptionalism that has created the huge ecological and social challenges we face today. This mindset, rooted in unscrutinised growth logic, has taught many living within contemporary western societies to demand quick fixes; to buy ‘solutions’, rather than searching for answers within themselves and their communities. It’s true, looking inwards for answers may seem harder than outsourcing, but it is also where we can draw on the deep knowledge we all have about our own lives and our own organisations. In the garden we also talked about how the overt messaging of concern about the climate emergency is consistently undermined by unconscious, covert ways of working that inwardly reinforce the principles of growth logic, such as ownership, accumulation, competition and power over others. And, moreover, that this covert undermining of overt ambitions is often the reason why so little progress is made in changing deeper attitudes that shape behaviour. So with this in mind, we asked ourselves, what would be the Earth Logic way of taking an idea to action? What are the Earth Logic ways of growing the types of projects that are rooted in different ways of being, doing and having? If buying sustainability from a brand, or calling on quick-fix solutions from a consultancy is the growth logic way – what is the Earth Logic way?

As we tied up a few wandering tendrils of the late green beans, we wondered if perhaps the Earth Logic way of nurturing action and change is *gardening*. After all, gardening is a tried and tested framework for making change happen, powered by care. It is accessible to – and used by – all sorts of people in all sorts of places who dig and sow where they are. It doesn’t need lots of equipment or even much space to make

it happen. Gardening is possible anywhere, including where there are few resources, no access to land and even when those involved have never done it before. For some, gardening is already a health- and livelihood-giving process. For others it is a way to provide for those around them and to keep cultural practices alive. For others still it is a place to experiment and express creativity, to be activists and influencers. Gardening is a way to cultivate new projects and ways of living in a different way. It grows the skills of change and reinforces the principles of sufficiency, balance and care. Earth Logic gardening seeds and nurtures projects that support the health and survival of Earth and all species – including humans. The Earth Logic way celebrates collaboration, personal agency and shared responsibility for sustaining our Earth home.

A note on language: in this book we, Kate and Mathilda, write together as ‘we’. When we use ‘we’ or ‘us’ in other ways, such as referring to ‘all of us as humans’, we endeavour to make this distinction clear. When we say ‘you’, we are talking directly to the decision maker in everyone – acknowledging that how much agency you might feel and how large or small a mandate you have, varies.

Throughout this book we use the phrases ‘the work of change’ and ‘change work’. By this we mean the activities and initiatives around ecological, social, cultural and economic change.

GARDENING AS METAPHOR FOR CULTIVATING ECOLOGICAL, SOCIAL, CULTURAL AND ECONOMIC CHANGE

Imagine a drone dropping a packet of seeds onto a patch of tarmac. What will happen? With no one there to open it, the packet lies there, sealed, blown by the wind, the seeds inside slowly rotting. With no one to prepare the ground, plant the seeds, nurture the seedlings and the plants, nothing will grow. The seeds in the packet, which could have been the start of something remarkable, will remain just seeds – promises that never come to fruition.

It is the same with work geared towards bringing about environmental and social change. Projects may be tantalisingly packaged, imagined as a complete solution and helicoptered in; but unless there is someone on the ground primed and ready to receive the project, to prepare the ground for it, to root it in a community and nurture the fragile shoots of change

that sprout through the many hot, cold and stormy days that follow, the change project – however well intentioned and clever – will remain a promise that doesn't come to fruition.

As a metaphor for cultivating sustainability projects, gardening is generative, grounded and linked to practice. The process of gardening tends to and cultivates complex relationships towards unfolding outcomes rooted in the specific place. It uses a type of gentle governance – or care – to bring a (living) thing, a place, a relationship, a community through a cycle of multifaceted growth. Humans have long been harvesters, gatherers and gardeners. As a species we are highly adapted to finding ways to cultivate places in which to survive. Earth Logic gardening uses practices of care for the Earth including its people to cultivate the ground and to seed and nurture urgent opportunities, practices and projects of change.

The metaphor of gardening offers many handy principles for new and seasoned practitioners of change work alike. In this book we share the principles and practices of gardening applied to change work, whether in fashion or other sectors, at work or at home. We spend time grounding ourselves in the places where we are by 'paying attention to the soil'. We examine how to work with many groups, including marginalised and sometimes invisible ones, when we think about 'gardening with many species'. We explore how to 'harvest' the fruits of our labours respectfully. We consider how to enrich projects by learning from 'cross-pollination' and 'companion planting'. And we engage with the need to rest, 'to lie fallow', and the importance of gardening our inner planet.

We lean on the metaphor of gardening to benefit from the wisdom of nature and of gardeners who, over hundreds of generations, have understood how to go about growing what we need to sustain ourselves. Is it rocket science? No. It's just the common sense it takes to work simultaneously with many timeframes, many different people and species, interests and needs, with the unknown (like a sudden rainstorm) and with knowledge and imagination.

WHY DO WE NEED TO APPROACH CHANGE PROJECTS AS GARDENING?

Earth Logic shares insights gained from the heart of a broken fashion system and the huge toll it takes on people and planet. In particular perhaps, the phenomenon of fast fashion demonstrates the danger posed by human-made systems when they lose touch with the reality of Earth's limits and with the need for social justice. Fashion in service of economic growth has become so familiar and ubiquitous that it is easy to think that it is the only way to 'do' fashion. It isn't. This kind of fashion is actually recent; in the same way that dependency on cars or industrial agriculture are recent phenomena. Such systems are made by humans. They can be remade.

A recent research paper authored by Isak Stoddard and more than ten other scientists¹ made a global analysis of barriers to change. The group was a multidisciplinary team drawn from environmental studies, earth science, political science, economics, sociology, psychology, technology and engineering. They looked at a wide range of factors including global governance, geopolitics, policy frameworks, economic systems and financial instruments, lifestyles and social norms. Their conclusions are striking. The key barriers slowing the progress of social, environmental, economic and cultural change are:

1. Concentration of power in the hands of the elite and the dominance of the logic of economic growth.
2. Reliance on models ingrained in the old paradigm that reproduce instead of solve problems.
3. Lack of attention to questions around how we find our lives meaningful (here we add too much attention on technological fixes instead).
4. Focus on single issues over systems; for example, separating climate change from social justice and personal experience from the global picture.

Although the Earth Logic plan was written a couple of years before Stoddard *et al.*'s paper was published, the Earth Logic concept and its approaches directly address each of these points. Through the practice of Earth Logic gardening, we can address these points in action.

1. Stoddard, I. et al. (2021). Three Decades of Climate Mitigation: Why Haven't We Bent the Global Emissions

Curve? Annual Review of Environment and Resources, 46:1, 653–689.

Earth Logic
gardening

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WHAT DO WE NEED TO GARDEN IN A NUTSHELL?

Earth Logic sets out six landscapes for action towards systemic change and all of them need tending and cultivating – *gardening* – to make this change happen. We call them landscapes because they describe places to explore, to act and to live (Figure 1). Three landscapes are focused on the goals of the work: LESS to fit all activity within Earth’s limits, PLURAL for social justice and diversity of imagination, and LOCAL for action rooted in place and community. These landscapes roughly map onto the UN’s Sustainable Development Goals.² They bring key themes such as climate action, increasing biodiversity and achieving social justice into something everybody can relate to and act on and set targets for in personal and professional lives. For example – I know I am doing LESS, because I’m not buying new clothes and extending the lives of the ones I already have. An organisation knows it is working on PLURAL because it has appointed a more diverse board of directors. And, my LOCAL engagement is growing, as in our neighbourhood we have founded a sports equipment lending resource for teenagers, and I am starting to recognise more local species of birds and wildflowers.

The other three landscapes are focused on ways of working to make change: LEARNING (and unlearning) – how to educate, research and innovate; LANGUAGING – how to create mind shifts through words, imagery, stories; and GOVERNANCE – how to organise, negotiate and regulate. Again, these are about bringing initiatives to everybody where they are. For example, sustainability knowledge exists everywhere although perhaps it has not been labelled like that. If you turn every site into a potential LEARNING

1. LESS – fitting all activity within Earth’s limits
2. LOCAL – scaling and recentring action rooted in place and community
3. PLURAL – social justice and diversity of imagination
4. LEARNING (and unlearning) – how to educate, research and innovate
5. LANGUAGING – how to create mind shifts through words, imagery, stories
6. GOVERNANCE – how to organise, negotiate and regulate

Figure 1 – Earth Logic landscapes

hub, you may start seeing the football team as a valuable place to learn about collaboration. LANGUAGING can open and close conceptual and action spaces. For example, what possibilities for being with clothing can you imagine if you replace the word consumer (which actually means destroyer) with gardener or adoptive parent? And, what if you claim GOVERNANCE as something that is not just top down and one step removed from everyday life, but rather is something that is intrinsic in everything you do – in the way you regulate emotions, organise activities, know how much is enough or how much space to take up – even though you sometimes choose to ignore it.

All six landscapes are explained in detail in our earlier publication *Earth Logic*,³ free to download, and we suggest you read it as a companion to this book. The Earth Logic landscapes do not exist in isolation but are supported by a set of values which include:

- Care (after Puig de la Bellacasa⁴) is intimate healing and tending to relationships from within. Care radically transforms the notion of sustainability from the domain of experts to practices involving everybody. For example, many of us already know how to care for a pet, for food, for a plant. Care includes looking after ourselves and each other, which is often especially needed in the challenging work of environmental and social change.
- Grounded imagination is about imagination that is in touch with the context and community and conditions you are working in. You could say it is the opposite of droning in a packet of seeds.
- Staying with the trouble (after Donna Haraway⁵) is staying with the authentic goals of LESS, PLURAL and LOCAL. They are simple to understand – the tricky part is living with them even when it causes friction within us or between people – and it will. LESS, for example, challenges ideas of what it is to be a successful human today. It also means changes in working practices, lifestyles and how we identify as individuals. This is tough. But the alternative – a planet unfit for human life – is tougher. Staying with the trouble also means engaging

2. <https://sdgs.un.org/goals>

3. www.earthlogic.info

4. Puig de la Bellacasa, M. (2017). *Matters of Care: Speculative Ethics in More than Human Worlds* (3rd ed.). Minneapolis, MN: University of Minnesota Press.

5. Haraway, D. J. (2016). *Staying with the Trouble: Making Kin in the Chthulucene* (1st ed.). Durham, NC: Duke University Press Books.

with ideas even when they are challenging and can't be grasped in the time it takes to ride an elevator. And it also means finding the decision maker within each and every one of us instead of pushing responsibility elsewhere. This can feel scary when relying on consultants for direction and ready packaged solutions are the norm. Note that this does not mean that big companies and governments should expect citizens to do all the work. What it does mean is that every organisation and community is made up of people who can make a difference.

WHO IS EARTH LOGIC GARDENING FOR?

Earth Logic gardening is for everyone, in much the same way that gardening is open to everyone, if they so choose. It decentralises and de-professionalises the work of making change happen, as everybody can acquire skills around change and be an expert in their own bit of the world. Like 'care', gardening is something everyone can do. This means that this book is for people who want to make change from where they are – as professionals or laypeople. You may be someone who already knows a lot about climate change and social injustice for instance, but have yet to find the place to ground your activities – you may be still searching for your *plot*. Or maybe you already have a place to take action – perhaps you work in a big business – but are in need of some good tools and skills for working with change – maybe you need *gardening tools*. Or maybe you are struggling within the current system, which is so steeped in the logic of economic growth, and are finding it hard to see how to begin. Perhaps *guerrilla gardening* is where you need to start, to show that change can be seeded in new ways and often in surprising places.

HOW TO USE THIS BOOK?

As mentioned above, Earth Logic sets out six landscapes that suggest where to act. The next step is to start working there. In the pages that follow we offer nine gardening principles (see Figure 2) to guide the work of cultivating action and change. It makes sense to go through them in order, although you may find that you need to come back to some of them at different times during the process. You can use the principles to start a new project or to give new energy to work in progress. If you work for an organisation, you might choose

1. Paying attention to the soil
2. Planning the garden
3. Sorting out the tool shed
4. Gardening with many species
5. Tending, caring, maintaining
6. Nurturing edges
7. Responding to change
8. Harvesting honourably
9. Following

Figure 2 – Earth Logic gardening principles

to integrate a principle of 'gardening' the work of change into a weekly meeting. If you don't have support at work or wish to cultivate change in your life outside work, you can get together with other people in a 'gardening' club to discuss how to grow the work of change and meet regularly to plan, reflect and support each other – and also to share the joys. This book can also be part of education and training, such as a work or a self-organised study circle, or in formal education. We hope that many different kinds of gardeners will find sustenance here.

As you, dear fellow gardener, set out to cultivate the work of change, we would love to hear from you and about how you work with these ideas.⁶ Indeed while over the last few years we have already encountered many projects and initiatives supportive of Earth Logic, we notice that rarely are they joined up and so they can sometimes seem small and isolated in comparison to the mass of growth logic activity. Our dream is for Earth Logic projects to form a pathway or corridor – a bit like a wildlife corridor that offers safe passage for species to move between habitats. An Earth Logic corridor would connect imaginative, wild and wonderful fashion, food, media, technology and many other practices and relationships. It would enable more and more people and organisations to connect with and choose projects in entirely new ways.

What is common to all seeds of projects focused on environmental and social change is that they need to be sown and nurtured somewhere specific that you have access to – *your plot*. What is common for seeding and gardening as

6. Contact us through www.earthlogic.info

PART II

Earth Logic Gardening Principles

change making is also that beginnings will be small and humble, yet nurtured into powerful new practices, infrastructures, ways of relating to nature and other people.

To imagine your seeds for change, we suggest you use one or more of the Earth Logic landscapes. For instance, to think about how GOVERNANCE— organising, distributing and making decisions can support the shift to LESS, you might perhaps consider developing a book of recipes to use food waste. To explore how ways of LANGUAGING seed a shift to PLURAL, you may begin by creating maps that simply shows who is and who is not included in decision making in the company. To consider how LEARNING ought to seed a shift to LOCAL, perhaps look to engaging a local school in finding out about the different types of skills that local people have.

Earth Logic gardening draws upon Kate's direct experience as an amateur gardener, supplemented by horticulture books and more specifically by the practice of permaculture. It is also deeply influenced by many approaches to change, such as theories of care and feminist technoscience, systems thinking and futures studies, decolonial studies, radical pedagogies, participatory design and action-oriented research. What they have in common is that they are relational approaches to change, which are critical of the idea that nature can be separated from human life. They also are creative approaches to exploring the messy, unfolding experience of life and for finding new and original pathways through complexity. A core inspiration for design as seeding is the field of metadesign.

Earth Logic Gardening Principles

1. Paying attention to the soil

Flavour of the life

We get our hands dirty, get our feet dirty. Feel the moisture of the earth beneath us, smell the difference between autumn and spring. Can we bend? We get on our knees and notice the shimmery worms working their way through layers of humus. We gently lift a rock, what lives there? We dig with our hand and feel the temperature drop the deeper we go. We notice fine threads – root systems and mycelia weaving this specific soil together in this specific pattern. We put our cheek to the soil, and remember this is where it starts and ends and this is what holds us and all life. Taste the soil?! We caress the brave shoots moving in the direction of the light.

THE GARDENING PRACTICE OF PAYING ATTENTION TO THE SOIL

The key to successful gardening is a well-structured and biologically active soil that provides plants with water, air and mineral nutrients. Accordingly, the first and foundational act of gardening is to *pay attention to the soil*; that is, to pay attention to the complex and dynamic basis that influences everything that follows. It is a twofold process which starts with renewing and expanding the skills of direct observation and thoughtful interaction and continues with directing these skills to the soil, literally, the ground from which all other activity grows. To know the soil is to be able to garden with low energy inputs and without force. It is to take account of local conditions, to appreciate the unique possibilities where you are, and what

can be grown there. Even a beginner gardener will notice that soil is very different from one location to the next. Gardening recognises that different types of soil demand different measures for growing things. For example, sandy soil needs mixing with bulky material such as decomposing leaves or compost to help it retain moisture. And it also recognises that different soil types are better suited to growing certain plants. This same sandy soil, for instance, is better suited to plants like tomatoes whereas soil that is heavy with clay favours roses, lettuce, chard and peas.

Close observation reveals that the soil is a rich and multi-species world and those dependent on it can only be healthy if the soil is first healthy. The practice of noticing is interwoven with purposeful nurturing of the soil. This may involve digging in animal manure, for instance, as a fertiliser. Or sowing seeds



Paying attention to the soil

of red clover to naturally fix nitrogen in the soil. It may also involve planting a hedge to stop erosion; not walking on soil especially during cold, wet weather to prevent it becoming compacted and restricting airflow and drainage; or leaving the soil to rest. Noticing and nurturing the soil is the foundation for everything that follows and is the essential work of gardening. It is rooted directly in the

insights gleaned from being, doing and mindful interaction with a place. The soil foundation thrives on a diversity of plant types, fungi, microbes, and from careful and occasional interventions: healthy soil often benefits from minimal digging, disturbance and compaction, to reduce water loss and to keeping soil communities intact (Figure 3).

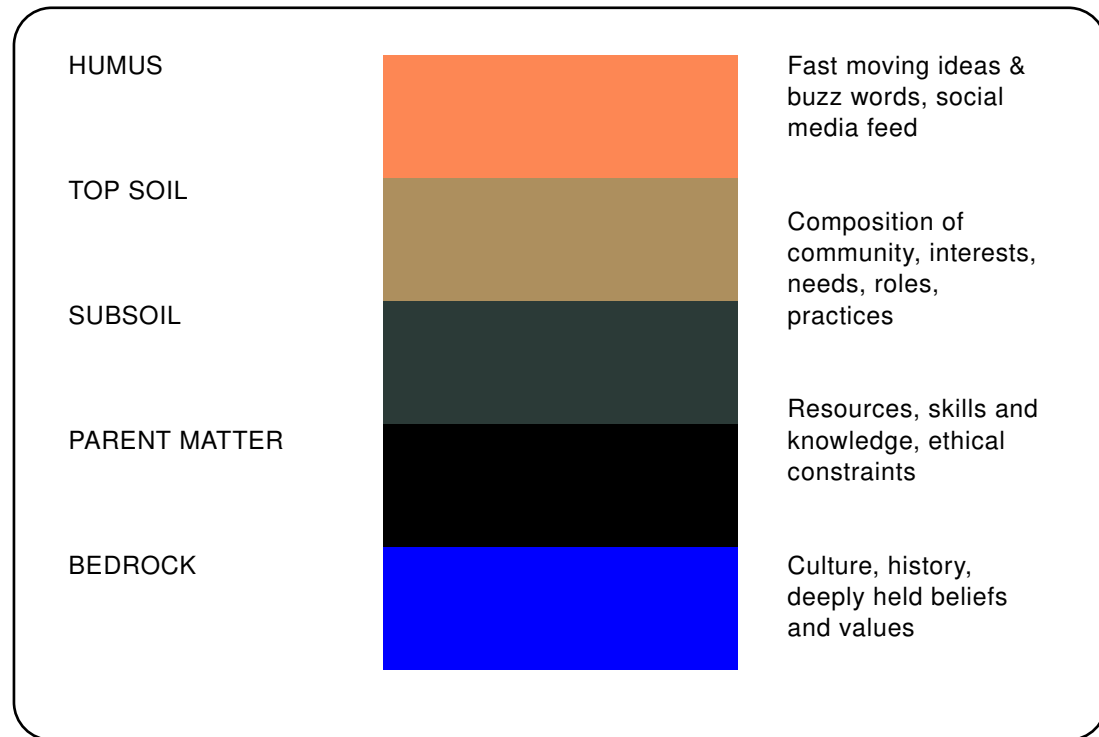


Figure 3 – Soil layers

The soil consists of several layers. At the very top is the humus formed from organic matter, such as leaves breaking down. Underneath is the dark topsoil combining the organic matter and minerals from deeper layers – a good place for plants to grow and organisms to live. The next layer, the subsoil is a lighter colour and deeper, and formed of sand, clay and organic matter. Then there's a layer mainly consisting of large rocks, called parent material because the layers on top developed from it. Underneath the soil is the actual bedrock. The parallel of 'paying attention to the soil' in change work also uncovers different layers as we go deeper – from buzzwords to deeply held values – and holding it all is Earth.

PAYING ATTENTION TO THE SOIL AS INSIGHT FOR THE WORK OF ECOLOGICAL, SOCIAL, CULTURAL AND ECONOMIC CHANGE

Just as paying attention to the soil is the foundational process for gardening flowers, vegetables and more; close observation and nurturing of the ground is also key to the work of social and ecological change. To seed and grow healthy change, it is essential to pay attention to what is beneath a project or action; to drop down a layer if you like, to what's the deeper context of a project. Close observation may begin with a place or community's composition, its practices, interests, needs, language and stories, the roles of different people and organisations. Deeper still, you may seek to understand resources, skills, materials and ethical constraints. Even further down, you pay attention to a place or community's culture, history, deeply held beliefs and values, ways of living. Below this, finally you come to the very bedrock of the change: the Earth and the planetary limits it sets on all activity. Engaging with the deep understanding of place and community, through culture, mindsets and down to the bedrock of the Earth is the basis for sustained ecological and social change. This is the same if you are growing blackcurrants or transforming fashion, food, media or travel systems.

Observe and interact; notice and nurture. For change work, nourishment may take the form of new ideas, from science and theory, from art and fiction, from people with different perspectives and from other species. Nurturing may include new skills, competencies and literacies (for example, mending, facilitating a meeting, learning about local wildlife). It may take the form of examples and cases (like new innovation,

tools and movements for transformation and how they have been implemented). It may require joining or even setting up networking events and study circles to meet others and talk and learn together. Some of the knowledge that you may need to cultivate might not fit into the usual categories. It may be unconscious, buried deep in your experience, though it may still be powerful and give you agency. This may include informal knowledge, the sort of insight that you gain from talking with people or you learn by doing. It may include knowledge that has been suppressed in a world dominated by economic growth logic such as indigenous ways of knowing or those that are typical of a particular place. Other knowledge still may be forgotten, such as earlier approaches to systems change and to householding with resources. Knowledge will enrich the soil and empower the gardeners.

HOW DOES PAYING ATTENTION TO THE SOIL – PLACE, COMMUNITY AND CULTURE – ACTUALLY HAPPEN?

Like in the garden, start by defining your plot – the place where you will be working for change. Remember plots can be as small or large as you have access to. It might be a physical space, an online space, a space you have access to only for a limited amount of time or permanently. If your gardening concerns your organisation at work, it is its culture, people and place that is your soil. If it is your home neighbourhood, then its physical location, culture, people is the soil. Of course, a plot can equally be online based – then it's that community, its culture and the place that you need to pay attention to.

Next deploy all your senses and take in your plot, your soil. Add to it patience, curiosity and openness. The key is to immerse yourself in the context, by being present, by talking to people, and noticing practices. Try these questions to guide paying attention to the soil.⁷ They work as a personal or group inquiry. Document your observations and reflections – big pieces of paper allow you to access them all at once.

1. *Sensual – what does it feel like, what are your immediate impressions?*

This is important, but elusive information, which often becomes unprioritised when you focus on tangible facts. Enlist all your senses – what are the sounds, smells, flavours, tactile sensations of this place? Leave the visual sense until last, because it often dominates, and explore afresh without judgement. What are the colours, shapes, patterns of this change context? This kind of engagement can feel a bit awkward and silly at first, but stay with it – you will discover unexpected things!

2. *Factual – what happens here?*

This is when you start engaging with what is taking place as a matter of fact. Think about all the creatures and species in your garden's soil. What are the creatures in your change context – your plot? The primary actors may be easy to identify, but who else is there (for example at other times of day than you).

What are their roles, and how are they dependent on each other? What specific practices go on in this change context? How do they pan out across the day and the year; perhaps longer time cycles? What specific knowledges and skills are there? What are the equipment and resources at hand? What are the needs and interests of the various actors? What other factors come into play in your soil? What are the demographics and other facts that you can access to support your understandings? In this stage, it can be helpful to defamiliarise yourself, to see this context afresh. Like the new and curious visitor to a garden. You can materialise your observations by, for example, representing each actor with a stone and labelling it as well as the practices that take place. Keep going! There will, hopefully, be a myriad of actors and practices in your soil of change.

3. *Relational – what are the deeper motivations?*

With a solid map of the sensations and facts of the context, you can explore deeper motivations and workings of this soil – the change context. What is it, historically, and to do with the place, that holds these actors together, and perhaps that causes friction? What are the deeper stories and conditions of the work context, community and place that shape it today? Are there significant external forces

that shapes this particular plot? What distinguishes this context from another? And how is it similar to, or perhaps could be inspired by, other communities?

4. *Futures – how can the soil thrive?*

This is about imagining this specific context, as a thriving soil for change somewhere in the future. Imagine paying attention to the soil in this plot in 15 years' time in a scenario when the soil conditions are the best possible for change. What are people and other actors doing, what holds them together, what made the difference? This layer of speculation allows you to access possibilities of a context, your plot that may be hidden when the focus is on the present. It allows you to identify how you can nurture the

soil in small or big ways. This may include supporting more contact between actors, such as a study circle to share knowledge.

5. *Synthesis – what is this change context?*

What is the story of this specific plot, the key things that define it, the key opportunities and needs? Gather this in a way that is accessible and exciting for you – perhaps as an annotated collage and a story? Give your unique soil – your change context – a name. This will allow you to keep the soil alive in the ongoing work, and to add your new observations.

SMALL CASE – The soil for fashion change in North West England

The Earth Logic project set out to explore the potential for a local fashion government in the North West of England. The plot is a bit unruly – stretching across a fairly hefty geographical area with a rich history of textile mills, sheep farms, and many promising new ideas for how fashion and clothing can be done differently. We extend the workshop invitation far and wide. As we explore the underlying context – the soil – for change work here, the mills, the skills, the land and the rain come easy as its defining parameters. But is it the class struggles underneath, the pain and pride that is harder to get at that stay with us. They are undeniable threads and fine gossamer networks of this soil. Understanding how the legacy of class struggles manifest today becomes a core part of our ongoing work.

7. These questions draw closely on the metadesign tool 5 levels of story-telling, see Tham, M. & Jones, H. (2008). *Metadesign Tools: Designing the Seeds for Shared Processes of Change*. Allemandi Conference Press. ISBN: 9788842216704. Available at: https://www.academia.edu/15257979/Metadesign_Designing_the_Seeds_for_Shared_Processes_of_Change

PAYING ATTENTION TO THE SOIL – SUMMARY

A healthy soil is the foundation for all gardening – whether you are growing dahlias or seeding the work of ecological and social change. The soil in the garden thrives on a diversity of plants growing there, on keeping living plants growing across the seasons, and on being tilled as little as possible. A healthy soil in terms of seeding change to support environmental and social justice, also comes from diversity in the community and culture; and respect for how knowledges, histories, as well as physical features of a place come together.

When you feel the urgency of global challenges today and pressure to do something, it is tempting to skip over or totally ignore preparatory work. But remember the sealed packet of seeds dropped by the drone onto the tarmac. Paying attention to the soil – to the foundations that support communities and culture – is an essential first step in seeding deep change leading to ongoing health and survival of Earth and its species, including humans.

Initially, it will take effort to prioritise work that has often been overlooked; but with time it will become an embedded practice. This garden practice has the potential of leading to significant impact, as it prepares for environmental and other change work, with strong commitment and ties to community and appropriate to culture. Of course, this work will also contribute to the literal soil and make it healthier and a good growing ground for other initiatives too.

Some tips:

- Gather together and meet others, exploring who else is active where you are, adjacent to your plot. When you make your invitation, consider what brings or could bring your community together? (Might it be football? food?) What histories and geographical features shape your place? Learn about your local ecosystem and culture.
- Team up with a new arrival so you can see your plot both from within and with fresh eyes. Going between two change plots can help you notice the particulars of the soil. For example, how might the soil for change in a fashion college in central London differ from the soil of a rural high street in the Northwest of England? Certainly, they are both fashion scenes and potential Earth Logic gardens, but the soil will be different.



Planning the garden

Earth Logic Gardening Principles

2. Planning the garden

Flavour of the life

We step onto the plot and try to take it all in, first flitting here and there, from one corner and possibility to another. After the first excitement fades, we start to notice the light, where it falls, areas of shade. We look around for where water sources are, and if the trees give clues about the direction of the prevailing wind. We keep in mind and in our hearts the soil, and we dream of carrots and cucumbers, roses and alpine strawberries, lavender and sweet peas. We come back and sit, at different times of day across a year, a notebook filling up with ideas and sketches. We imagine this miracle space in three months' time, a year, five years on, dreaming jam jars in rows, friends sharing a salad as a barbecue gathers momentum. A robin stops on the branch of the neighbouring oak, and as a squirrel propels itself down the sizeable trunk, we speculate butterflies, bees, long grasses, sweet scents many years after we, ourselves, have turned into soil, and other gardeners have continued tending to the dreams.

THE GARDENING PRACTICE OF PLANNING THE GARDEN

After close observation and nurturing of the soil, it's time to start planning the garden. Planning a garden is a multidimensional collaborative process made up of variables of different degrees of predictability: time and its seasonal rhythms, soil type, climate and weather, other species, the growth of plants, as well as the interests and needs of both gardeners and the surrounding community. Planning the garden comprises at least five steps:

1. Consider the purpose of the garden. What are the reasons for the garden: to grow food, to make a beautiful space to relax in, to play, to create a home for mammals, insects and birds?
2. Study the garden space. Take note of how the sun falls on the plot and shifts through the year. Notice too the direction of the prevailing wind and rain. Think about access to the garden. Be aware of the soil type and which species live in and visit the garden – some plants might need to be protected from hungry guests. Make yourself aware of the places in the garden where no plants grow; that's a sign of poor growing conditions and where nutrition is scant.
3. Consider the garden's size and how much labour is available. What scale are you working with, what can you manage? Perhaps you have access to a conventional garden or an allotment. Or maybe you are working with a window-sill garden, a vertical garden, with plant pockets, a few tubs – or perhaps you plan to do some guerrilla gardening.

4. Design the garden. This is when you figure out which specific plants to grow and how to position them in the garden and in what combinations. A garden design depends on the specific site and soil type and quality, and the horticultural zone the garden is in more generally. Consider in which seasons different plants will be in flower or leaf, lifespan of plants, height, spread, sun requirements, soil requirements as well as growing compatibility of different plants. For example, peas don't thrive near garlic but beans and squashes grow well together. Generally, permanent structures go in first, things like raised beds and pergolas. Next are large plants – trees and bushes – don't forget to consider mature height! Then perennials. Then annuals. Gardeners make a visual plan of the garden layout and the time sequence of work.
5. Keep a journal! This will help you learn from gardening in practice.

PLANNING THE GARDEN AS INSIGHT FOR THE WORK OF ECOLOGICAL, SOCIAL, CULTURAL AND ECONOMIC CHANGE

Planning the garden is a powerful metaphor for changemakers to draw upon, working, as it does, with change in complex systems literally from the ground up. Planning a garden, like planning change work, entails engaging with a large degree of unpredictability. This is true of all work with complex systems. Such systems cannot be controlled, but you can learn with and respond to change if you stay tuned in. The garden plan is therefore an auspicious point of

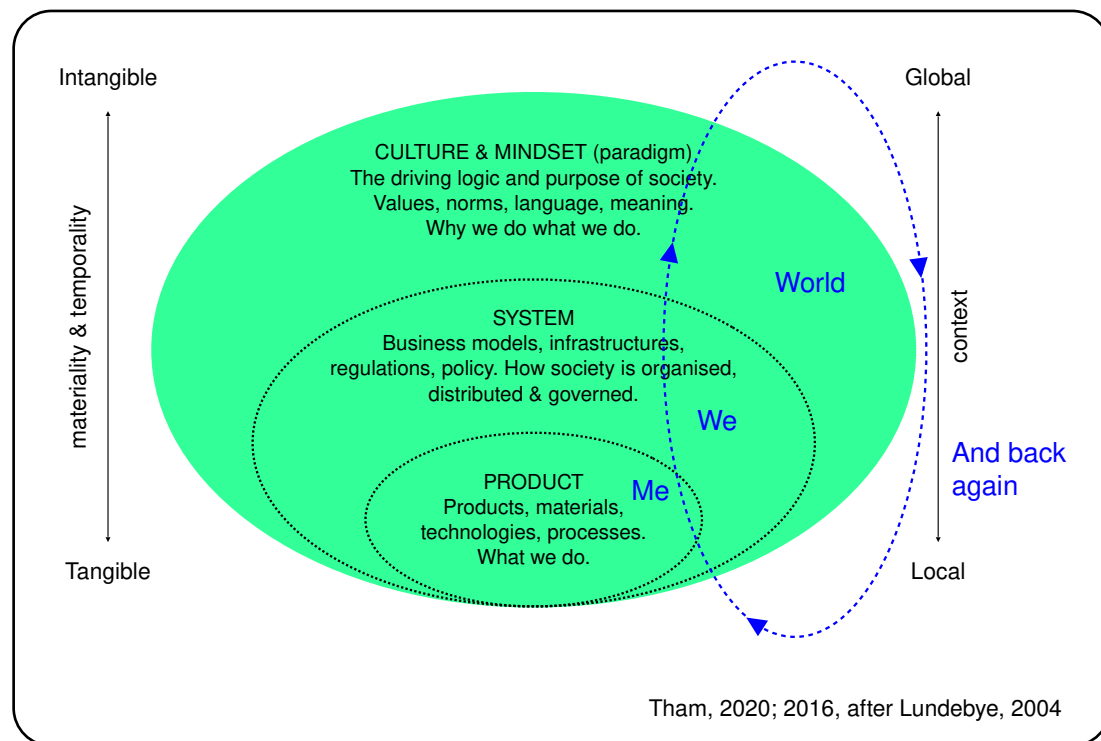


Figure 4 – Metadesign nests for gardening the work of change

Earth Logic gardening draws on the field of metadesign where design has been described as a process of seeding and proposals for change as seeds.⁸ Seeding is a process that creates emergence.

departure, that sketches out a vision for the work to come, but is not a technical drawing to be realised to perfection.

The metadesign nests framework (Figure 4) can be helpful when you plan your garden to identify where you can have access and start seeding change. Is it at the level of the product – perhaps by changing processes, or the level of the system – through a new working model? Or perhaps it is at the level of paradigm

and mindsets – using new language? All are interconnected and follow a cyclical reflective process starting at the level of the individual, Me, then moving to the collective, We, to the global, World, before going Back Again, helping those involved to stay rooted.⁹ The overarching mindset – Earth Logic – of gardening change is to support the health of Earth and all species. This creates different opportunities than when the driving logic is economic growth.

8. Ascott, 1995 cited in Giaccardi, E. (2005) Metadesign as an Emergent Design Culture, *Leonardo*, 38 (4), pp 342–349.

9. See also M. Tham, M. (2022). Metadesign meditation to find agency for careful Earth work from within a ball of yarn. In J. Wood (Ed.), *Metadesigning Designing in the Anthropocene*. London: Routledge; Jones, H. and Lundebye, A. (2012). Metadesign: A Dynamic Framework for Seeding Socially Responsive Design. Out of Control, the 8th International Conference on Design and Emotion. Central Saint Martins School of Art and Design, UK.

WHAT DOES PLANNING THE GARDEN MEAN FOR CHANGE WORK?

Like planning a garden, Earth Logic work requires the kind of plan that takes a whole systems view, has a clear vision, and is pragmatic. The plan has to consider as many variables as possible and needs to be revised regularly, and like in the garden its designers need to be prepared to learn on the go. The following questions can guide an Earth Logic garden plan. We suggest taking a large piece of paper to draw your garden and how you see it unfolding.

1. *Purpose*. What is this garden for – how will it contribute to LESS, LOCAL and PLURAL? What kind of initiatives does the specific area where your plot is located need, for example, so as to increase interest in and knowledge about using food wisely. What do you need the garden to give you as a change agent and individual and the community working together?
2. *Site*. What kind of plot have you got access to? What kind of space can you carve out? What are the equivalent to sources of sunlight, shelter, shade, nutrition and water in the plot? For example, how is your work resourced, what brings energy, knowledge and skills, how do access to resources vary over times? What work is already happening on the site – how can you connect with it and build on its strengths?
3. *Scale*. What size are you working at? Consider the scale of activity that is appropriate – often something very small, like a swap shop in the library can be powerful, and at

least a first step of seeding change. What would be the ultimate mature size of this project? What scale could the plot and the gardeners comfortably hold? Remember, you are now thinking outside the economic growth logic!

4. *Time*. What are the ways in which you can embed future mindedness in your project? How can you think across multiple time scales? How can this project be as light as possible in terms of time input and other resources?
5. *Design*. What are the permanent structures, the larger components, the elements that last for years and conversely the transitory features of your project? For example, do you need a physical space and/or communications platform to grow your seeds? Are there things already in place that can be used or repurposed? Consider what your equivalent to flowerbeds, pergolas, benches might be. How can different aspects of your change projects help each other? How do you avoid them stealing energy and attention from each other?
6. *Collaborators*. Which already existing projects and which communities can you work with? Some may share the same territory as you but be nocturnal! Get together with other people locally – your ‘co-gardeners’ – they are a key resource.

SMALL CASE – The garden design for challenging forest conversations

The forest is supposed to solve all problems – store carbon; replace petroleum-based fuel, building and clothing materials; be home for diverse species; and support human health and wellbeing. How can we approach this if key actors are locked in polarised views? Here the garden design became a series of online meetings, with the humble aim of seeding capacity to ‘stay with the trouble’ of holding tricky conversations about the forests and how to relate and benefit from them. We, Mathilda and a team at Linnaeus University, invited a new GOVERNANCE to bring in both personal and professional values and knowledges, we promoted new perceptions of forest by inviting very different stakeholders to engage in LANGUAGING their relationships with it, and promoted LEARNING by creating bridges across different types of stakeholders.⁴⁰

10. www.forestmeetings.se

PLANNING THE GARDEN – SUMMARY

Planning the garden as a metaphor for planning social and environmental change in fashion and beyond, invites a multidimensional whole systems view. This is true if you are working at the scale of large change projects, or if you are working at the scale of a project equivalent to a windowsill. Seeing change work as an ongoing collaboration, like gardening, helps you to consider many temporalities at the same time, and to see work as unfolding in partnership and concert with surrounding society.

Some tips:

- As with cultivating gardens, cultivating the work of change is specific to where you are. It really helps to nail the exact place where you will commence Earth Logic activity. You can add more sites later if needed.
- When planning the work of change, start by describing the purpose of your project in direct terms. For example, in the growth logic economy context, needs are often confused and conflated and the needs of the market is shorthand for delivering increased profit and value to shareholders. In fashion for instance when stripped bare, needs are simple: access to clothing; access to ways of experimenting with and communicating identity and group belonging; access to safe, viable and meaningful livelihoods.
- Guerrilla gardening might be for you if you find there is no way you can get support from the organisation or context you are currently working from. See who you can collaborate with to gain confidence and practice of change work, and select a small project to start off with.



Sorting out the tool shed

Earth Logic Gardening Principles

3. Sorting out the tool shed

Flavour of the life

The door to the tool shed is warped and hangs slightly off the frame and it squeaks as it opens. Inside the shed it's dark; slivers of daylight peek through the planks. The air is still inside, and it is quiet. There is a musty, earthy smell from damp leather gloves and soil stuck to trowels and rakes. Cobwebs hang from the corners and a couple of snails are making their way across a wooden board. As we think about the new gardening season, we prop the door wide open with a brick, and the sunlight and outside air rush in, waking up the sleeping tools. We take spades, trowels, rakes and secateurs off hooks, inspect, clean and oil them, and put them back in order. Let the gardening begin!

THE GARDENING PRACTICE OF SORTING OUT THE TOOL SHED

Gardening requires tools; different ones for different tasks. Gloves, for instance, and shears and a wheelbarrow all do different jobs. Gloves protect hands from thorns and stinging nettles, yet if they are too thick they can damage the very seedlings you are nurturing. Secateurs help the gardener to separate dead material from healthy stems and branches; they need to be kept sharp to make a clean cut and avoid wounding the plant. Meanwhile the garden fork turns heavy soil more easily than does a spade. Hardened steel gives it flex and strength. Tools need to fit well with their user's hands and body to be helpful. Tools often become blunt or begin to rust and need to be sharpened, their moving parts oiled. Sometimes the tool shed may need sorting and reorganising. Perhaps the unused

tools can be passed on, and others brought within easy reach and into active use again. With envelopes of seeds, a new ball of string and a thermos flask full of tea, the tool shed becomes a powerful place of potential.

The practice of sorting out the tool shed is an integral part of gardening. Selecting the appropriate tools for each task, caring for tools in an appropriate way and using them artfully are essential gardening skills. The skillful gardener knows that tools are a means to an end. The skillful gardener also knows that the use of tools – the sharp blade, the petrol powered strimmer, the pesticide – comes with great responsibility. Only in sound collaboration between the soil, plants, gardener and with an end goal aligned with Earth's limits and social justice, do tools have a place.

SORTING OUT THE TOOL SHED AS INSIGHT FOR THE WORK OF ECOLOGICAL, SOCIAL, CULTURAL AND ECONOMIC CHANGE

Tools act as extensions of humans that enable us to expand our radius of action in time and space.¹¹ And sorting out the tool shed is therefore an integral part of building awareness of how social and ecological change can happen, just like it is integral to work in the actual garden.

The tools you use to make change in fashion, food, transportation, education and beyond may include technologies (such as pens, spectacles, computer programmes), communication, thinking and learning devices, such as conceptual frameworks, language and metaphors, as well as professional roles or functions. Tools – and our relationships to them – are deeply entangled with the paradigm, dominant culture or logic that you are working within. For example, sustainability work conducted from within the economic growth logic has favoured tools like metrics. But the use of metrics requires predefined baseline measurements, categories and quantifiable targets. What if what you are in pursuit of is as yet undefined and does not conform to measurable units?

The failure to slow and reverse climate change in recent decades can partly be attributed to an overreliance on technological fixes. Technological determinism refers to an over reliance or belief in technology-based solutions as well as tools more generally. Tools can

never replace courage, commitment, collaboration and action. At best they can bring us more deeply in touch with the ultimate goals and amplify our change work – but they can never do it for us. If you adopt tools uncritically, they tend to support existing ways of thinking about and doing things. Therefore, if you want to seed deep change, you need to examine your tools and what kind of values and ways of thinking they were designed to support.

Fields such as feminist technoscience are examining and challenging how tools uphold imbalanced power structures, such as sexism, racism and human exceptionalism – which means seeing humans as separate from and superior to all other species. In her text, *The Carrier Bag Theory of Fiction*, writer Ursula Le Guin¹² considers the vast difference in worldview shaped by the tools of the hunter (knife, spear, arrow) and the gatherer (basket, bag, container). These tools imply very different relationships with the world and the role of the tool holder.

As you approach change work from *within* and as *part of*, and at *home in* the context of where you want change to take place, you need to consider no tool as neutral, innocent or accidental, but instead ask how tools can be meaningful and sensitive helpers in our urgent gardening of change.

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11. McLuhan, M. & Fiore, Q. (2001). *The Medium is the Massage*. Corte Madera: Ginko Press. Original edition, 1967; Illich, I. (1973). *Tools for Conviviality*. London: Calder & Boyars; Tham, M. (2019). Dirty Design (or a Bloody Mess) – In Celebration of Life affirming Design. In Fletcher, K., St Pierre, L. & Tham, M. (eds), *Design and Nature – A Partnership*. London: Routledge.
12. Le Guin, U. (2019 [1988]). *The Carrier Bag Theory of Fiction*. Ignota.org: Ignota.

SORTING OUT THE TOOL SHED IN PRACTICE – HOW DOES SORTING OUT THE TOOL SHED ACTUALLY HAPPEN?

Just like cultivating a garden of plants, cultivating change where the health of the planet is the primary purpose also requires a good sorting out of the tool shed. Again, all the tools you rely on need to be brought into the light and examined to see if they are in good working order, and most importantly, if they are fit for purpose. Like in the shed, you might be surprised at how many rusty old tools are lying around in your head or in the projects of change of which you are a part.

You can use these questions to guide sorting out the tool shed. It can take place as a personal or group inquiry.

1. Establish where your tool shed is and make a visit to it. Consider where all the tools you use are kept. Some are obvious and easy to locate (like a sewing machine or a computer programme). Some may be more elusive and harder to pin down (like how you prioritise, or the language your organisation uses). It is not unlikely that the most elusive tools may be the most powerful in guiding your work today.
2. Make an inventory of your tools by putting them all on the table. Some of the tools you will have to draw – such as a process you use, a computer programme, a language, key concepts or books you draw upon. You may need to discuss a recent project in detail or check your diary to remember all the different tools you use. Keep going, including small and large tools.
3. Label your tools. What are the tools called and how do you use each tool? How did you come by them? Are your tools in good working order?
4. Reflect on your tools. What do they say about how your work and what is being prioritised? How does using them make you feel? What are their effects on people and other species? What categories of tools can you see?
5. Remember what you learnt about the soil – the place, community and culture of your work for change, and what it needs to be healthy. How do the tools fit with that – in terms of upholding patterns that are not conducive for Earth Logic gardening; or creating new healthy patterns?
6. Check your garden plan. Which existing tools will support you to do the different activities you want to engage with? Which tools can you let go of?
7. Imagine new tools! Speculate on tools that can support your Earth Logic gardening. Enjoy juxtaposing and cross-fertilising tools like perhaps combining metrics and meditation. Make up entirely new tools and imagine them in use. Remember new skills, knowledges, languages can be tools too.
8. Take stock of your collection of tools and decide which tools you think can genuinely support your Earth Logic gardening.
9. Make a shed for your tools – a folder, poster, box – and gently place your Earth Logic gardening tools inside it.

SMALL CASE – Indicating Earth Logic work

Key performance indicators are an instrument – a tool – for checking that work is on the right track. They are powerful tools in driving work in a particular direction. But if the indicators (such as gross domestic product) are articulated from the logic that has harmed Earth – such as a focus on economic growth – the indicator will just push us to produce more of the same. It is important that the indicators we set up for Earth Logic work genuinely align with what we want to achieve, that they allow us to get there in different ways, and that they are meaningful and relevant for the individual, community and organisation and society. We can start from the goals of LESS, LOCAL and PLURAL. If LESS is an indicator for a fashion company, for example, then a reduction in volumes will indicate that work is on the right track!

SORTING OUT THE TOOL SHED – SUMMARY

'The master's tools will never dismantle the master's house. They may allow us to temporarily beat him at his own game, but they will never enable us to bring about genuine change'¹³ – words from the celebrated poet and black lesbian feminist Audre Lorde. Meanwhile, the physicist Albert Einstein is attributed with saying, "We can't solve problems by using the same kind of thinking we used when we created them". Sorting out the tools you use means stepping into the metaphorical tool shed as an integral and powerful part of preparing for the work of deep and genuine change. Unexamined, old tools risk perpetuating old habits, whereas new or repurposed tools can help us see and do new things (just think what can happen if you use a soft pastel instead of a hard pencil for drawing).

Some tips:

- Often tools that are less obvious and concrete can be elusive. To identify them, try keeping a diary, letting a colleague interview you, drawing a storyboard of a project from start to finish.
- Consider what personal and work practices make you feel happy and inspired – they may point to tools that you have dropped and can pick up again.
- Changing tools will feel challenging and take you beyond your comfort zone – try to embrace and celebrate this process!
- Consider how your tools can bring diversity to your work. Invite collaborators – co-gardeners – to share tools from their way of working and culture. Consider how you use tools in different seasons and for different purposes in order to learn how to use them better.

13. Lorde, A. (1984). The Master's Tools Will Never Dismantle the Master's House. In *Sister Outsider: Essays and Speeches*. (2007) (ed.). Berkeley, CA: Crossing Press, pp. 110–114.

Earth Logic Gardening Principles

4. Gardening with many species

Flavour of the life

Standing under a tree, we watch, we listen, we notice how much life is here. We see the ways bees and hoverflies cruise between flowers, guided by scents and colours that our nose and eyes cannot detect. We see how they prefer wild flowers to the natural planted borders. We note with a wry smile that they are patient teachers. In the raised beds we see worm casts and watch blackbirds beat the soil with their feet, mimicking the sound of rain. Fearing their burrow being flooded, the worms surface and become a meal. Gardening takes place within this exchange. We breathe in, and step forward in all this togetherness.

THE GARDENING PRACTICE OF GARDENING WITH MANY SPECIES

Every garden is made up of many living elements, only some of which are planted there on purpose. For example, mice eat seeds and bury others in stashes for later; wind blows pollen from tree to tree; the weight of fat pigeons break (prune?) the branches of a fruit tree. Each of these are co-gardeners. Deep underground live fungi and beetles. At night, moths, bats and foxes traverse the garden. In the winter a hedgehog hibernates under a heap of dead twigs and leaves. People are co-gardeners too; directly sharing the load and joy, offering support and community through their presence at adjacent gardens and also sharing the grief by jointly disputing the felling of a tree. People bring seeds and plants into the garden, people make compost and people sleep rough at the borders of allotment gardens and parks. They are all co-gardeners.

Working with an ever-changing set of actors and agents, including those you have no control over, is an essential part of gardening. Giving up a desire to control sometimes goes against training and can require a shift and acceptance. It can also bring surprise, spontaneity, emergence and moments of great beauty and with it help recalibrate ideas about who is involved in gardening. Gardening with those who garden alongside you, visible, desirable or not, rather than in spite of them, is an established part of indigenous and organic approaches to cultivation, of permaculture and companion planting, where diverse plants with complementary needs, perhaps in terms of pollination, pest repellent properties and support, are grown together for collective benefit.



Gardening with many species

GARDENING WITH MANY SPECIES AS INSIGHT FOR THE WORK OF ECOLOGICAL, SOCIAL, CULTURAL AND ECONOMIC CHANGE

Embracing the notion of gardening with many species is essential for cultivating Earth Logic ways of organising, designing, dressing, being etc. It is essential because cultivating diversity and justice is inseparable from addressing environmental issues, such as climate change. It is also essential because society as a whole needs plural perspectives and ideas and different ways of knowing about things in order to respond to global mega-challenges. These are things that a diverse community can provide. They can also provide practical and emotional support to groups or organisations or individuals who are working for change; providing sustainment where you meet resistance, safe refuge and rest when you get exhausted, and courage to step beyond comfort zones.

Just like gardeners are trained to see some plants in the garden as desirable and some not, those of you working for change may make the same judgements in terms of which kinds of knowledge and which kinds of people are attractive to work with. Just like in the garden, where you are trained to think that you can and do have the right to eliminate aspects of life that don't suit your idea of a garden (like perhaps weeds or wasps), in change work you may also think that some perspectives or people who don't think like you, can be pushed away.

Similar too is the schooling which trains you to believe that it's possible to have a full overview of a plan and execute it to perfection. You might think that you can fully control the development of

a project and become a success, a hero, winning a prize with your name on it. These are all strong beliefs associated with the logic of economic growth. Earth Logic is different. Cultivating change in Earth Logic is a gentler, more thoughtful and caring process, and engaging with change work is a collaborative effort. The huge benefit that such an approach brings is the support and richness of ideas this brings forth, but of course it can take some getting used to. We're not talking about just humans here, but also how we humans actively cultivate the work of change together with other species, and with many different knowledges of the past and plural needs of the future.

HOW DOES GARDENING WITH MANY SPECIES ACTUALLY HAPPEN?

Other gardening principles like *paying attention to the soil* offer some ideas about nurturing life in your 'plot' (be it a media company, a community group, a wardrobe or a window box). Now it's time to get a closer look at your co-gardeners, their needs and interests and what they can bring, as well as potential collaborators outside the garden.

1. Find out who, and what perspectives, are in your garden – whether this is an organisation, an area of a city, or an online platform. Spend some proper time in your plot, noticing who's there at different times of day and night, the week, the year.
2. Consider the role of everybody that spends time in your garden. Remember that only some will have a formal role and will have been

invited, and that some only appear very rarely or only once. Think of it as an ecosystem, where different species have different functions and support the health of it as a whole.

3. Consider how those in the plot might be impacted by your idea, and what they might bring to it. How will it change what is already there? Who might be negatively affected?
4. Consider what happens around your plot? Are there similar projects to yours under way? Are there organisations – schools, municipalities, trade bodies – that will be affected by, or could affect, the project?
5. Design the invitations to potential co-gardeners – perhaps invite them to an initial meeting. Invitations need to offer something relevant and meaningful for different types of stakeholders. Make sure

that you make invitations to contribute or simply offer information about the work you will be doing, early in the process. This will enable people and organisations who are already there to offer valuable advice. Again, listen, notice and reflect and be prepared to accept ideas that you didn't expect. Keeping your ultimate goals in mind will help!

6. Make principles of engagement. Whomever you do settle on to have some level of collaboration with, make some simple gardening rules together. This includes a process for checking in with each other how the rules work, and specific times for revisiting the rules and revising them.
7. Continue checking in and caring for the different people, other species, organisations in and around your plot even when you are not formally collaborating.

SMALL CASE – Bridging disciplinary comfort zones

In the project BOOST metadesign, teams from design, technological prototyping and business model innovation were tasked to create new proposals for housing together. It soon became clear that these 'co-gardeners' had very different ideas of what solid knowledge is and what sustainability means. Only with time, and as they got to know each other better, could they respect the different knowledges and experiences they brought. A key part of this was recognising that each discipline needed to stretch beyond their comfort zones so they could all meet in the middle.¹⁴

14. Tham, M., Ståhl, Å. & Hyltén-Cavallius, S. (eds) (2019). *Oikology – Home Ecologies: A Book About Building and Home Making for Permaculture and for Making Our Home Together on Earth*. Växjö: Linnaeus University Press. Available online: diva-portal.org/smash/record.jsf?pid=diva2%3A1370030&dsid=-9808

GARDENING WITH MANY SPECIES – SUMMARY

The relationships you cultivate with those in and around your plot are an important factor for a flourishing garden. Gardening with many species is concerned with seeking to cultivate health for all by working in complementary and supportive ways. This is different from a conventional way of working, where benefits are calculated in a direct and transactional way, and where there is competition.

Some tips:

- Remember to honour those co-gardeners you feel you have little in common with, or whom you don't understand. You might teach each other the most.
- Remember that co-gardening comes in many ways and forms. Even a very short exchange can be valuable.
- Co-gardening evolves over time. Have patience with yourself and others, but keep communication clear, and the invitation genuinely open.



Tending, caring, maintaining

Earth Logic Gardening Principles

5. Tending, caring, maintaining

Flavour of the life

The autumn day is grey, cold and rainy, the garden looking far from the lush and colourful idyl that magazines and social media feeds advertise. Still, there is tending to do in the garden. It is a good time to clean and sharpen the tools, to wash out pots ready for sowing in the new year, to plant spring bulbs, the promise of early colour. Soon we find that we are warm from the labour and that the drizzle doesn't seem so bad. We start appreciating the beauty of raindrops on a spider's web, and see many hues of brown and green in what first appeared a flat grey. Through practices of care we get in touch with life.

THE GARDENING PRACTICE OF TENDING, CARING, MAINTAINING

Gardening is a process of many rhythms and intensities. Gardening involves a series of regular, small acts of tending to lightly steer and encourage what is already there. To repeatedly water, weed, stake and tie, to pick out snails and feed the birds takes commitment. Some tasks are repeated daily, weekly, year in, year out or in season. Tending a garden also follows other patterns. There are bursts of activity or single one-off interventions to shift the emphasis in a growing cycle or kickstart a different type of process. Cutting back a fruit bush in the dormant phase, well before the buds form; building a simple structure to support a climbing plant before it flops over; harvesting peas to lengthen the productive period. These are intermittent acts of garden care and maintenance with a range of different time-intensities and knowledge, which themselves are part of a bigger

cycle of climate and seasonal activity as well as local conditions.

Tending is the multitude of tasks that together make the garden flourish. Separately, the activities may seem mundane and not demand much skill. Yet, to be able to apply them altogether requires presence and great sensitivity and attunement to what the garden needs at a particular time in order to flourish long term.

TENDING, CARING, MAINTAINING AS INSIGHT FOR THE WORK OF ECOLOGICAL SOCIAL, CULTURAL AND ECONOMIC CHANGE

Tending is a practice of care. Care is central to Earth Logic perspectives. Care is a relational practice which always 'depends': on the relationships at hand, on the particular situation.¹⁵ Care is never-ending because relationships – between people, other species, inanimate

objects – are never finished. Care decentralises the responsibility for gardening or working for environmental change and social justice because it is something everyone can, and does, do. This is different from the professional expertise that is often associated with sustainability. The reward of care is not 'job done', but the reciprocity and health of relationships. Tending is never a top-down approach to change, but connected to the real world.

Tending a garden of plants, by being immersed in what's happening in the garden 'here and now' and paying attention to weather and other changing conditions, means making adjustments so that the garden as a whole can thrive in the short and long term. This is a sophisticated multiple commitment to part and whole, to today and to many tomorrows. This same commitment to the health of the parts and the whole both in the short and long term is what tending the work of change is about whether it be in housing, food systems, transport, fashion. For an individual, it can mean continuous maintenance and mending of, for example, wardrobe items so that access to wearable clothes for different situations is unbroken. For an organisation it can mean simultaneously nurturing different 'seedlings' of change – a small outreach communications initiative, an internal reading group – with attention paid specifically to what each initiative needs to flourish, and to what they need to do so together. For an organisation, it can mean continuously looking after relationships between people and other species

in a project, updating communication so it stays relevant and in tune with developing needs.

HOW DOES TENDING, CARING, MAINTAINING ACTUALLY HAPPEN IN CHANGE WORK?

Tending, caring and maintaining is crucially about simultaneously responding to and being immersed in the detail of the work of cultivating change AND keeping in mind the overarching goal of the work. It certainly concerns looking after the physical world, such as keeping equipment and places going. It also means the constant nurturing of ideas, relationships, and the infrastructures needed to make change – such as the setup of an organisation, communications networks. This is absolutely essential for radical change work to succeed and easy to forget and neglect in the frenzy of launching new concepts, and society's general emphasis on what's new, and just started.

A core of this work is to make time for reflection, as individuals and as a collective of agents for change. Here it is helpful to draw on the cycles of action and reflection from action-oriented research¹⁶:

1. Set up a process for a) documenting the tending you do in the garden of change; and b) how you reflect on it. You can document your work in writing, annotated photos, in a storyboard. You might decide to meet with fellow gardeners once

15. Puig de la Bellacasa, M. (2017). *Matters of Care: Speculative Ethics in More than Human Worlds* (3rd ed.). Minneapolis, MN: University of Minnesota Press.

16. Heron, J. & Reason, P. (2001). *The Practice of Co-operative Inquiry*. In Reason, P. & Bradbury, H. (eds), *Handbook of Action Research: Participative Inquiry and Practice*. London: Sage Publications.

a fortnight to discuss your ongoing tending, and have a more thorough reflection every few months. Make sure you keep a shared and simple log of your caring and tending processes; how they have been successful and how they can be improved. Reflect on which processes have supported specific initiatives and which have been most important for the flourishing of the whole.

2. Take turns at taking responsibility for different parts of the garden, and join in different 'gardening' teams to cultivate the work of change. Observe how what you

notice changes, and what kind of tending you usually bring in. What happens when you swap and adopt someone else's caring patterns?

3. Reflect on which tools you use for different parts of change work and at different times. What happens if you bring a new tool in focus?
4. Reflect on where, as individuals and a collective, you place the most emphasis in the work of change. Are there areas that perhaps are receiving too much attention? Are there areas that would benefit from more nurturing?

SMALL CASE – Tending through the Craft of Use

The Craft of Use project⁴⁷ started from a simple question: what happens if as much attention is paid to using, tending and maintaining clothes as to creating them? What happens to the clothes themselves and to everything else? The answers that emerged (there were many!) were rooted in currencies of care, time, skill, political action, memory. Together they began to draw together examples about what Earth Logic fashion might be like, including things such as community, intensive use, practical techniques, alternative dress codes, commitment to existing clothes across multiple generations. Certainly using things does use some resources, importantly however tending, caring are not practices driven by the logic of economic growth. Not only that, but using things with skill, dedication and pleasure can meet many of the same needs that we seek to meet by buying new goods. Tending, caring and maintaining: the processes by which we can retire the old way of doing things, and make space for the new.

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17. Fletcher, K. (2016). *The Craft of Use: Post-Growth Fashion*. London: Routledge. Also see: <http://localwisdom.info>

TENDING, CARING, MAINTAINING – SUMMARY

Earth Logic involves a shift in focus of all activities – whether they are workings of the car industry, national governance processes or the fashion sector – from the dominant lens of economic growth to a focus on the survival and health of the planet and all its species, through the concrete goals of LESS, LOCAL and PLURAL. This means a focus on the health of relationships and a continuous steering of activity towards the goals. It includes considering, for instance, whether predominant types of social media activities are accelerating the pace of consumption and if it's time they promoted a culture of sharing to achieve LESS. It includes energising a project with community input and place-based knowledge to move towards LOCAL. It includes nurturing diversity where there is homogeneity, such as celebrating many body types for a more PLURAL fashion.

Tending, caring and maintaining takes the work of fostering change from rocket science to common sense (which is probably why it has been under-prioritised, for there is no way to care from above and at a distance). Caring requires our keen, close attention as well as going with what actually works, not what is supposed to work, and/or what you think is an attractive solution.

Some tips:

- Remember that care is gentle and situated. Typically, interventions will be small – being attentive to needs, and the timing is what makes the tending impactful.
- Caring constantly changes, since you are working with complex and changing systems. Enjoy the journey of learning with an open mind and heart, and accepting the teachings that different co-gardeners, and different types of plants, will offer you.
- Resist the urge to start anew from a blank canvas. Society's pull for the new is very strong, and social norms still favour the new, the young and the start-up over the patched and mended. Tending is about making change from what is already there and harnessing all the energy and wisdom of what has already been brought to life.

Earth Logic Gardening Principles

6. Nurturing edges

Flavour of the life

At the bottom of the garden, where the shed does not quite meet the fence, heaps of twigs tangle with bunches of nettles. It's a zone we tend to want to forget. It's spiky, unkempt, disordered in contrast to the neat beds of vegetables and flowers. The fox rushes there, when we disturb it in the garden, and we suspect all sorts have made a home there. Suddenly, from this entanglement springs a firework of colourful buddleia, defiant, heavy with scent and butterflies, jubilant.

THE GARDENING PRACTICE OF NURTURING EDGES

A garden is made up of many parts, not all of which are planned or get attention. These might include the edge zones of a plot, the hedges that run riot at a boundary, areas of waste ground. Or it might be the space behind a shed, piles of woody branches and leaves, patches of nettles. Perhaps because these areas fall outside the sphere of our noticing and interference, edges can become reservoirs of natural emergence and types of ecological knowledge different to human knowledge. For example, self-seeded plants, which establish readily at a garden's margins – perhaps because they are out of sight or out of reach of humans – can teach the gardener much about the process of succession, about the local soil type, climate and water availability. They can also teach the gardener about garden design. Through wind-blown seed the edges of a plot can make their way into a planned scheme and bring moments of serendipitous beauty and magic.

No- or low-intervention gardening can provide safe havens to multiple species. This promotes ecological diversity and sometimes, remarkable fruitfulness. Gardening spaces of diverse edges and unpredictability is often about a practice of deliberate non-intervention. To garden in edge places is to exert less control. This requires tolerance and openness to different aesthetics, species and time-frames, including of the very long term, beyond human lifespans. For a range of plants to grow, gardening practices need to nurture plurality. For instance, favouring small seedlings of cross-bed plants as well as the bigger, more vigorous ones will often make for more intense and varied colour as they mature. If only larger seedlings are chosen, the plants tend to revert to one parent type and be less diverse.



Nurturing edges

NURTURING EDGES AS INSIGHT FOR THE WORK OF ECOLOGICAL, SOCIAL, CULTURAL AND ECONOMIC CHANGE

Edge zones are places of creative emergence and variety where activity often happens against the odds, with limited resources and in harsh conditions. What arises from the margins is often an indicator of *what else* is possible in a place, other than what is already happening, and helps seed imagination about the form that diverse experiments in living might take. Fostering ecological and social change can start in these edge zones. In fact, openness to this possibility – alongside all other possibilities – and the potential for unplanned, diverse, emergent outcomes, means that edges are critical zones for making change happen, with benefits felt both inside and beyond a community's boundaries.

HOW DOES NURTURING EDGES ACTUALLY HAPPEN IN CHANGE WORK?

Fashion (as well as other fast moving lifestyle areas) has long taken inspiration from a wide range of places, including from the edges of culture. Often fashion approaches edge zones as a magpie might, collecting and appropriating cultural elements – shiny things – with little attention paid to where they are from, or to what effect wresting a thing, an idea, a 'look', from its context might have. In contrast, cultivating change towards social and environmental goals replaces this one-way flow of taking from edge zones with a purposeful nurturing of them, and an explicit recognition of the power of these edge zones for changing fashion and other communities.

The places between the apparent edges of a planned project, local needs and, for example, ideas about food culture or fashion expression, can result in powerful cross-fertilisation for transforming how food or fashion is made, maintained and re-imagined. People and ideas act as carriers of knowledge moving inside and across edge zones, carrying with them seeds of different sorts of understanding, expertise and connections. Much of this will be unpredictable and unreproducible elsewhere in exactly the same format, as each is a result of the unique relationships between people, place and resources.

Typically, sustainability work has focused on measuring, quantifying and categorising – to bring predictability and order to a system off balance. The risk is that the order that is imposed stems from the logic that created the problems and brought Earth systems off balance in the first place. Instead, nurturing edges is a powerful strategy for imagining patterns that genuinely promote the health of Earth and all species. Growing the possibility of unpredictable outcomes in Earth Logic fashion, food, transportation, media shifts them out of the territory of growth logic and instrumental actions alone. It brings clothes, a meal, a train journey or social media feed into a space of diversity. It favours suites of actions with more ambiguity, less predictability; recognising that the right track to be on may not be the one that is most trodden.

To nurture edges is to go slowly and respectfully. Primarily, nurturing edges is a practice of active listening, noticing, and the giving of space and time.

- Include the edge zone of your project in your gardening journal, make a note of even small shifts and no shifts.

- Keep visiting the edges of your project – you will discover new edge zones.
- Cultivate curiosity about the edges of your project, and celebrate what you don't understand; note your questions.
- Practise deep listening – what's taking place beyond tangible events?
- Stay with the trouble of uncertainty and mess – be prepared to visit the edges of your comfort zones.
- Use tools such as bisociation¹⁸ – the juxtaposition of two or several concepts – to purposefully explore what may unfold across.

SMALL CASE – Fashion Ecologies

In the Fashion Ecologies project,¹⁹ exploring the links between fashion, people, local resources and conditions and place, the influence of edges was super apparent. What became clear was the extent to which most relationships and resources which make fashion activity possible in Macclesfield (a town in the north of England) were far away from the commercial high street view of fashion, but in sewing machine repair shops and in the networks of people found on notice boards in basement haberdashers. The health of the place was powered by the vitality of these near-invisible agents. The project also experimented with placing mending tools in a launderette,²⁰ printing an alternative map of the town,²¹ and to a pocket guide to fashion ecology drawing the focus to the edgelands, ecological relationships and what they enable.²²

NURTURING EDGES – SUMMARY

Edge zones are places of possibility. To nurture them often requires little work to happen in the garden and a lot of work to happen within ourselves. Giving up tendencies to seek control and order, embracing unpredictable outcomes, making space for unformed collaborations is the way to bring ideas of change to action.

Some tips:

- Changemakers need to resist any impulse of commodifying edge zones and incorporating them in planned garden zones.
- Changemakers must also resist dumping rubbish and problems in edge zones. They are sacred spaces for life to flow freely and safely.

18. Jones, H. (2007). Bisociation Within Keyword-mapping: An Aid to Writing Purposefully in Design. *Journal of Writing in Creative Practice*, 1, 19–31. doi: 10.1386/jwcp.1.1.19_1.

19. <http://fashionecologies.org/>

20. <http://fashionecologies.org/haberdashemergency/>

21. <http://fashionecologies.org/fashion-ecologies-walk/>

22. <http://fashionecologies.org/a-pocket-guide-to-fashion-ecology/>

Earth Logic Gardening Principles

7. Responding to change

Flavour of the life

From over the wall, the neighbours who've lived here for fifty years say that they've never seen this much rain. The water butts are overflowing, a spring bubbles up between stones, there is a permanent pool at the bottom of a flight of steps. In the garden the soil is heavy, cold and we've tracked the route we take to the compost heap into a muddy trail. The small patch of grass, where in the summer we bask in the sun's rays, is now almost entirely moss. Moss is what thrives in a water kingdom. And that is what this garden has become. Climate change has already brought unpredictability and with it the realisation that fashionable desert plants or those from dry plains now rot where they are rooted. We choose instead to plant watercress in a shady raised bed – looking at plant names afresh for clues of how they like to live. We also decide to sow crop after crop of peas, beans, lettuce, broccoli and squash, as our response to the exploding slug and snail population, to grow enough for them and us.

THE GARDENING PRACTICE OF RESPONDING TO CHANGE

Gardening is an open-ended process: no garden is ever complete! In its openness, gardening is a shifting dynamic of constantly evolving elements, tasks and relationships in which a gardener is a collaborator with only partial influence.

To garden therefore, means to work with unfolding components in a process shaped by the specific place, by different species, climate, resources and time – and of course unexpected events. There are many different ways of gardening without end or fixed outcome, like for example, the scattering of a couple of packets of wildflower seeds at the

edges of a lawn to attract more pollinators. Most however require a gardener to recognise the limits of their control and be willing to learn and grow along with their plot. For example, how does a gardener respond when an outbreak of honey fungus attacks the roots of many of the garden's woody plants? Or what happens in the presence of pigeons that continuously peck out the leading shoots and other leaves of vegetable seedlings? Or what about wind-blown trees; do you leave the fallen tree in situ when it is downed by a storm?



Responding to change

RESPONDING TO CHANGE AS INSIGHT FOR THE WORK OF ECOLOGICAL, SOCIAL, CULTURAL AND ECONOMIC CHANGE

Gardening as a metaphor for change work provides accessible, hands-on ways to learn from and be inspired to affect change within complex systems. To garden is to work within a changing system: to tinker, observe, adjust, creatively respond, work with each new detail, consider the whole and layer this understanding continuously. The larger, overriding context of gardening is of abiding change. Responding to change, whether with no action or daring transformation, with patience or fast work, draws upon a growing understanding of how systems are nested within larger systems and where the changing dynamics of one affects all others. Change work, whether it is around biodiversity or social justice, is the same. The parameters are always changing, in small, big and sometimes sudden ways, such as with the Covid-19 outbreak for instance.

Responding to change assumes an active stance, but actions are not always easy to implement. In the garden, responding to change is an attitude as well as a practice. An expectation that things will never be the same prepares the gardener for responding in agile ways, enjoying what comes, and thinking on their feet and with their hands, to bring about new outcomes. This is easier with a clear, deep and authentic end goal. The change project itself is not the end goal – but rather LESS, LOCAL and PLURAL are – and ultimately healthy lives for all within Earth's limits. There are many ways to get there.

HOW DOES RESPONDING TO CHANGE ACTUALLY HAPPEN IN CHANGE WORK?

Earth-centred work in the food, transport, housing or fashion context never happens in isolation from changing flows. There is no such thing as a controlled environment – a fashion, food or transport bubble in which conditions are insulated from outside forces. Instead working for change in all sectors means grounding activity in the real world of imperfect actors, incomplete knowledge and complicated collaboration. Accepting this, and moreover, working with its sometimes-testy limitations, is an essential feature of change. Here are some exercises you can try:

- Notice the different layers of change that happen in your work. What patterns of change can you discern – cycles, waves, abrupt gear changes? Which actors and forces have the most impact on your change project? Which changes are predictable? Which changes can you steer and influence? Which are beyond your control?
- Devise a way to chronicle changes and the actions you take to respond to change. Introduce habits around small, but frequent actions, and make a year wheel to keep on top of longer cycles.
- Reflect on how you, as individuals and organisations feel about change and uncertainty. Do you find it exciting, disturbing, rejuvenating or tiring? Consider which practices you can develop and sustain to be resilient when you meet predictable and unpredictable change. Practices that ground you in your place, community and remind you

of your purpose will support you in times of flux.

- Consider how you can bring together the knowledge of the world that you get through your senses with that from science and industry. This will help you feel more connected to changing systems, and also give you leads to how you can change systems that initially seem fixed.
- Challenge yourself to embrace wild cards, seek different collaborators to the usual ones, and not turn away when things get difficult or just don't happen the way you are used to. Develop practices – such as taking turns to host meetings, and meeting in different places – to flex your change and agility muscles. Consider your special change

resilience mantra and embroider a mantra onto a handkerchief.

In Earth Logic activities, cultivating actions that are sensitive to the total, holistic system and the need to reduce its collective effects (such as the cumulative size of the fashion sector), while also being aware of the dynamics of embodied, situated work (like setting up a school uniform exchange), is vital. Systems awareness can be cultivated by asking questions about fashion activities, such as: who benefits? Whose interests are being denied? Is this action for the long term? Is this what we, as individuals and a collective, want? Just like gardening, cultivating Earth Logic fashion, food or media is process work, a process of ongoing activity for change.

SMALL CASE – Change as a teacher

Working with the Earth Logic project has taught us so much about change and how people and organisations react to it. We learnt, for example, that the landscape of LESS – or rather the word LESS, provokes very strong emotions. So many times, people have said 'how about using the word 'smart' or 'enough' instead, or 'can't there just be a little bit of economic growth if it is nice?'. We understood that it's not that LESS is tricky to understand – in fact it is very easy to grasp. It's uncomfortable because it challenges so much of what it means to be a human today – progress, accumulation. We also learnt how important it is to always talk about PLURAL and LOCAL together with LESS because, while at a planetary scale LESS resource use is necessary, there are of course many individuals and communities who need a lot MORE. So, these days when we talk about LESS, we make sure there is space to explore and express the feelings around it, in a safe way, and we give it a context.

RESPONDING TO CHANGE – SUMMARY

Change is inevitable. Learning to respond to it, not resist it, is an essential exercise for practitioners of Earth Logic in fashion, buildings, food, transport, media etc. This might include working out how to engage with providing for and expressing yourself with material goods in nimble ways. Take the example of fashion: as climate change impacts fibre production, and price shocks reverberate through supply chains, this will push people into swapping and exchanging clothes locally. This might mean changing how you think about products, and how and what you value as your understanding changes of living within planetary limits.

Planned change work is always influenced by other change – at the global scale, such as in the Covid-19 pandemic, and at the personal scale, such as separation, illness or promotion – and everything in between. Therefore, a key aspect for the changemaker individual and organisation is to develop capabilities to cope with uncertainty, to prioritise learning, to be flexible and to remember the authentic goal. A key aspect of this is to stay grounded and centred in a sense of self that is rooted in a connection with our Earth home.

Some tips:

- Explore your own feelings about change – does it make you excited, anxious, stressed?
- Practise thinking about the different layers of change in your change work.
- Connect with your community; you can face many external changes together.



Harvesting honourably

Earth Logic Gardening Principles

8. Harvesting honourably

Flavour of the life

We have given the soil our attention, sorted out the tool shed, planned the garden, planted seeds and tended to tender seedlings. We have made peace with slugs and made new friends with the gardeners in the plots around ours. We have worried when the rain didn't come and when the wind was strong. Some of our seeds never came to fruition. Other seeds surprised us with their resilience. We have rejoiced at butterflies and bees playing amongst colourful blossoms. And we have muttered on days when the sun never seemed to come out and the digging was hard. And now, the garden is full of ripe vegetables, deep earthy scents and anticipation. It's time to harvest! To enjoy, celebrate and appreciate, to share and to look after and store.

THE GARDENING PRACTICE OF HARVESTING HONOURABLY

Harvesting marks the end of the growing season – for the garden as a whole or for a particular crop. It is the process of 'gathering in' and involves collecting seeds, plants, animals and fungi at a time when they are plentiful in order to both feast on them now and store, share or preserve them for future use.

Harvesting can involve specialist tools – from the big machinery of the industrial farm to the hand tools and baskets that assist you as you pick and gather an apple crop for instance – and involves particular processes and skills, such as knowing when the fruit is ready to be picked. Harvesting also has recipes, outfits, rituals, songs, dances and festivals associated with it. It is one of the most labour-intensive parts of growing.

Because of this – to share the load, as well as to celebrate and share the yield – communities come together for harvesting.

When the community gathers in, the practical wisdom of harvesting is on show: fruit is picked and handled carefully to avoid bruising in order to ensure best flavour and longevity; seeds are collected and saved for next year in labelled envelopes; garlic is lifted and dried in the sun to prevent mildew. Indeed, the fruits of a community's harvesting labour cascades forward through time, acting as preparation for the future, such as the lean times at the end of winter – 'the hunger months' – when little grows. It is then that the food laid down in stores enables continued survival. Practices of harvesting both work with the bounty of now and they also have one eye on the long term, sustaining systems and people into the future.

HARVESTING HONOURABLY AS INSIGHT FOR THE WORK OF ECOLOGICAL AND SOCIAL CHANGE

Figure 5 shares principles of harvesting honourably set out by the biologist Robin Wall Kimmerer.²³ The honourable harvest acts to guide how to build respectful exchanges with the resource base, with other people within Earth's limits. This is a central practice within the work of Earth Logic. Harvesting honourably is different from taking all that is possible within the letter of the law. It is an invitation to reflect more deeply on how you approach any kind of use, consumption, appropriation of materials, resources, other people or beings, ideas etc, and to listen to and develop our sense of appropriateness and respect from inside out.

Harvesting honourably opens the door to non-exploitative engagements for the long term. It seeks to balance the needs of now with long term security. Harvesting is bounty combined with accountability. The three Earth Logic goal landscapes of LESS, LOCAL and PLURAL align with the principles of the honourable harvest. They describe limits to fashion and other activities that are based on giving a fair share, equitable access to resources, regional differences, caring for others and the world.

HOW DOES HARVESTING HONOURABLY ACTUALLY HAPPEN IN CHANGE WORK?

Harvesting honourably is a concerted and practical engagement with limits.

Know the ways of the ones who take care of you, so that you may take care of them.
Introduce yourself. Be accountable as the one who comes asking for life.
Ask permission before taking. Abide by the answer.
Never take the first. Never take the last.
Take only what you need.
Take only that which is given.
Never take more than half. Leave some for others.
Harvest in a way that minimises harm.
Use it respectfully. Never waste what you have taken.
Share.
Give thanks for what you have been given.
Give a gift, in reciprocity for what you have taken.
Sustain the ones who sustain you and the earth will last forever.

Figure 5 – The guidelines of the honourable harvest from Robin Wall Kimmerer

23. Kimmerer, R. W. (2013). *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants*. Minneapolis MN: Milkweed Editions, p. 183.

Spend time with the guidelines for honourable harvesting above and reflect on how they relate to your change activities.

- What is it that you and others harvest to enable your activities? First consider the obvious, immediate and tangible resources. Then, go deeper and further, which Earth systems, people, other species are your activities dependent on? Create a visual map of all that is harvested. What can you see, what are heavy and light areas, how does the map as a whole make you feel?
- Now, think about what is grown during your activities. Again, there will be obvious and less obvious fruits of your work. Perhaps tangible things, like clothes, technologies or food, and intangible things, like community, confidence, skills and knowledge. Again, make a visual map, and consider your crop as a whole. What can you see, how does it make you feel?
- Consider the guidelines for honourable harvesting in relation to both maps, reflecting on for example, does what you grow and how it is shared and used warrant the resource use and the labour harvested to grow it? Coming to this question from an Earth Logic perspective is very different from asking it from an economic growth logic.
- Go deeper, by asking how you know what is enough and which senses can you put to use in the sharpening of your awareness of sufficiency. In a growth logic world, we are used to relying on external 'fences' such as a diet or a law. In an Earth Logic world, we need to

trust our feelings of enough, and actually most of us can feel when we have eaten enough, or when we didn't treat someone well – we just choose to ignore it. Consider what rituals can support you and your organisation to practise taking enough.

- Often taking only what's needed goes hand in hand with respecting the boundaries of people and other species. Look for direct examples of the ways in which your refusal to push through limits leads to different outcomes for other beings. Celebrate this!
- Individualism often drives consumption through status competition. What practices can you cultivate to overcome this force and actively choose, not out of piety or self-denial, but from a position of care and responsibility, to leave plenty for others? How can you share more equitably? Note down one or two places to start sharing (perhaps with the produce of the actual garden?) and a couple more that you can graduate to when your network develops. What do you give in exchange? When you take, is it ever acceptable not to give back? What sorts of things are appropriate to give when resources have been taken?
- How can you take steps to never waste what you have taken? Years of rationing after the Second World War shaped the lives of generations to waste nothing. How can some of these habits and attitudes be reprised? Can you invite an older person with lived experience of thrift into your group?
- How can you implement practices of asking for permission, listening

to and respecting the answer, including when those you are addressing are unknown (like a garment worker) or have no human voice (like a stream)? Consider finding out how consent is granted in other areas, like healthcare.

- How do you say thank you to the life and forces that you have taken? Are words ever enough?

Harvesting honourably brings a new sense of personal responsibility to housing, transport, fashion, food, media and other choices, requiring each of us to be answerable to ecological and social systems. The honourable harvest is both

a process of (following the lead of the educationalist Paulo Freire²⁴) *consciousness raising* (cultivating a critical consciousness) and *of conscience* (a moral sense that guides a person's behaviour), creating just systems for fashion, food, media and more that build the health of communities and ecological systems alike.

With honourable harvesting, new fashion, food, media scenes emerge centred around swapping, sharing, collecting and redistributing resources according to rules communities set themselves. And with these new scenes, new professional roles and potential livelihoods appear.

SMALL CASE – Honourable harvesting guidelines for respectful research practices

In the research project *Decentring Durability: Ideas and Practices of Long-lasting Clothes*,²⁵ the guidelines of the honourable harvest were used to check-in, be respectful and to guide the process of research. It raised to the surface important questions about what it means to do research when researchers are expected to give back to participants in a reciprocal exchange. It also asked how to conduct fieldwork and interviews when the researcher: 'Takes only that which is given' and, 'Uses it respectfully. Never waste what you have taken'. How, for instance, does an investigator honour all that a participant shares?

24. Freire, P. (1972). *Pedagogy of the Oppressed*. Harmondsworth: Penguin.

25. Fletcher, K. & Fitzpatrick, A. (2021). *Decentring Durability: Plural Ideas and Practices of Long Lasting Clothes*. London: UAL.

Harvesting honourably uses responsibility and accountability based on asking and answering fundamental questions to guide food, travel, fashion systems and more into a new era where a good life is made together, with sufficient materials, expression and employment. It also activates change by shining a spotlight on limits, equity and exchange explored through new looks and recipes, parties, changed social media feeds and stories.

Gathering in and collectively enjoying the 'surplus' of food, fashion, furniture in a fair way – and accounting for social justice, future generations, and more-than-humanspecies–complements external frameworks such as legislation.

HARVESTING HONOURABLY – SUMMARY

Harvesting honourably connects discrete needs in the here and now with collective security over the long term. It helps shift practices of ecological and social change from the realm of 'good ideas' to action with simple questions about responsibility and accountability that work at the level of the individual, the community or organisation and a sector as a whole. Harvesting honourably is important because resources (including skills, histories, cultural preferences, local expression, as well as materials) are part of common resources and ensuring fair access to them requires a sense of limits.

A tip:

- Harvesting doesn't just happen at the end of a project or process; everything you do is dependent on some form of harvesting. Consider how you can trace the harvesting across a whole system, how you can implement honourable harvesting, and how you can celebrate and show gratitude.



Fallowing

Earth Logic Gardening Principles

9. Following

Flavour of the life

We put on our warmest socks and wrap the blanket around ourselves. We see if there is a way to make ourselves even the slightest bit more comfortable. We let our body become still and heavy. We notice the air on our face, the air in our nostrils and the way it laps our ears. We become aware of the sounds in our surroundings – and the periods of quiet. We close our eyes. We allow our thinking mind to quieten, trace the edges of our skin with a broad attention, notice what bubbles up as we rest, and then let it dissipate. We are part of a flow.

THE GARDENING PRACTICE OF FOLLOWING

Following is the practice of resting. Technically, it refers to the action of leaving land – typically arable land – without a crop for one or more growing cycles. The purpose is to let the soil recover, regain moisture and to absorb nutrients from organic matter, dead leaves, animals and manure. Following in farming and gardening also disturbs unwanted visitors to the land or to a part of the garden like a plant, usually by removing a food source or host material.

FOLLOWING AS INSIGHT FOR THE WORK OF ECOLOGICAL, SOCIAL, CULTURAL AND ECONOMIC CHANGE

Following is also an essential part of human culture in the forms of naps, night time sleep, a weekly day of rest, holidays and practices of meditation. All human following activities are opportunities for taking stock, removing bad habits

ingrained in everyday life, and creating new habits. Following is part of a cycle of work and rest, action and reflection. In Earth Logic gardening, following is there for both the garden and the gardeners. Following is anathema to the economic growth logic lens of productivity and is a potent tactic to intervene in growth logic driven systems. Following is a time to connect with the larger purpose of our activities, get new energy and feel how you are part of a web of relationships. Doing nothing, letting be and stepping back to see the larger view are essential parts of the Earth Logic repertoire of gardening principles. By stepping back, you let other species take precedence.

HOW MIGHT FOLLOWING HAPPEN IN CHANGE WORK?

Following as a tactic in change work can operate in many different ways. It can be applied to the change work (the garden) as well as to the change agents (the gardeners) themselves.

Let's start with the change work:

How can you use following as a tactic for moving towards the goals of LESS, LOCAL and PLURAL? Following, understood as a reduction in activities, can mean performing a task at a slower pace, doing fewer of them or temporarily pausing activity. This can, most obviously, contribute to the Earth Logic landscape of LESS – less push, less throughput, less impact. As you do LESS, consider the risk of rebound effects, where benefits gained from doing less in one area, such as less energy and water consumption or less money spent, are instead directed to other activities, resulting in no net benefit. Also to be considered are the effects of LESS on, for example, livelihoods. This needs to be balanced by at the same time considering PLURAL and LOCAL.

Following can also be seen as a process of temporarily withdrawing from activity and if this makes space for others to step forward it may also contribute to more PLURAL action. The pause enabled by following alters how time is spent. This can also contribute to LOCAL change, as slowing down can direct attention and energy to making stronger connections with local places and communities.

The practice of stepping back gives new insight into the pace and cycles of different elements in the plot where you are working. For example, social media typically moves fast, whereas the transport systems you are dependent on may move slowly. You can make a visual map of how slow or fast work streams move differently, and how much you do to propel them.

Try also playing with ideas of how to use following. You could ask, for instance, what it would mean to introduce following cycles throughout your community or

organisation, or consider what a micro version of this would be like.

And then the change agents: Ask yourself about the ways in which following can become part of your practices, as you work individually and as a community. For example, how can you:

- Purposefully include time for reflection and recuperation in the work schedule?
- Build silence and pauses into meetings?
- Shorten the work day and week?
- Rotate the kinds of work you do so you find rest and energy in this way?
- Step out of social media at regular intervals and make a slower social media strategy?

FOLLOWING – SUMMARY

Rest is an intrinsic part of the gardening year and an especially powerful way to mobilise the Earth Logic landscape of LESS. Following is part of a process of reset and recovery, building energy and insight for what is to come. It is arguably the most natural form of taking action and yet it flies in the face of social norms around increasing productivity and growth.

SMALL CASE – Fashion following

It's especially exciting to imagine following in the context of fashion – and of course fast fashion. It highlights how the structures that people have created, actually quite recently, seem beyond question and unchangeable. For example, if a fashion company decides to step out of the cycle of seasonal collections, it will encounter ripples across its relationships with retailers, the media and more. To take such a seemingly obvious step, therefore, requires fashion companies to work together with the media, retailers, citizens and fashion education to create new fashion rhythms where following has its natural place. Perhaps a fashion company decides to let a particular part of the offer, such as outdoor jackets, rest for a couple of years, allowing for a longer process of refinement. Perhaps the end user decides to give the wardrobe a rest from new purchases for a couple of seasons. This brings forward a question about what new ways of configuring the economy might support this less intensive fashion rhythm?

Some tips:

- A good place to start is by acknowledging that resting is not always comfortable and easy. It is when you rest that difficult thoughts have time to form, and you may feel physically restless. It can be very hard to resist the urge to fill in a void of sound, space, or the diary. Try exploring resting as a way to practise 'staying with the trouble'. Mindfulness training can be helpful here.
- The economic growth logic has conditioned many of us to value productivity, busy-ness, an overflowing schedule, a constant social media flow. It is commonplace that these are used as indicators that a person is successful. You could even say that a fast pace in itself is an economic growth logic strategy to keep the idea of an economic growth logic world intact as it gives little space for critical reflection. Give space to reflect on how it feels to go slower, and what reactions you meet. Join up with others to explore and reflect and support each other in following.
- Again, an intrinsic growth logic idea is that problems are solved by adding something – more information, a new technology. But constantly layering new add-ons builds complexity, energy usage, and often confusion. Explore how you can use subtraction instead of addition to respond to problems. Which layers can be peeled away to support a better view and contact with the conditions at hand?

Part III Gardening Tasks

Gardening is a process. So is cultivating ecological, social, cultural and economic change. Raising a plant from a seed or bringing a project idea to action means applying it, growing it, improving it, adjusting it, learning from it, and more. Gardening both seeds or projects involves a host of tasks, some which need physical strength and tenacity and others which need brains, manual dexterity, emotional intelligence, skill, compassion, imagination, courage, or any combination of them and more.

The tasks for gardeners and change agents alike are many and never finished. Table 1 – Gardening tasks for working in the actual garden and in the work of change – can be found over two pages after Page 77. Each row of the table starts with a job in the garden, like raking, potting on, watering etc., and examines what is involved and the forces and other species that add unpredictability in the garden setting. We then reimagine this job as a task within change work, unpacking it, thinking about why it is important, when it happens and who else is involved. The resulting table is an outline of tasks which give nuance and a name to the often unseen and underappreciated work of care in sustainability transformation. We think it also gives kudos to gardeners everywhere, whether they be gardeners of a window box or of a climate change strategy for a large organisation; for it shows this work as multifarious, context-dependent, relational, frequently mundane, ongoing, demanding, and perhaps, above else, it shows the work of change as a process deeply in tune with complex relationships.

We imagine this table as a diagnostic tool to help shed light on what a change project needs and when as well as inspiration. Navigate between the columns towards the right hand side of the table to find a description that matches your current situation. Then track back, investigating how such a task is conducted in the actual garden. We have come to understand that the garden shows us what to do and how to do it.

We also see these gardening tasks as a potential curriculum, detailing the sort of skills, processes and relationships needed to bring combinations of ecological, social, cultural and economic change forward. No change project will flourish without these tasks. Together these are the work of gardening.

Gardening your
inner planet

is

not



a luxury or an
indulgence;

essential dimension

it is an

of radical,
systemic

and

sustained

work

change

Part IV

Epilogue: Gardening Your Inner Planet

The purpose of this book is to propose ways to cultivate the work of ecological, social, cultural and economic change. It does this by recognising that *how* we do this must be in concert with the world we want to see – socially just and respecting Earth’s limits – and sensitive to the relationships that make up life. *Gardening* the work of change is different from driving change from a growth logic mindset, and its fundamentals of individualism, competition and power over others. In many ways this book is a document of our self-reflections about the processes we use and experiences we call upon in our work for change.

The gardening principles in these pages are all taken from hands-on work in a garden. In the context of gardening change, though, we realised we needed to add one principle, which is about the gardener’s development and resilience. Perhaps the principle of *Gardening Your Inner Planet* can be useful for ‘actual’ gardeners too?

The notion that our inner development is linked to, and even sets the boundaries of, our abilities to make change in the world comes to us through many wise people, including Joanna Macy,²⁶ the permaculture and transition movements, as well as the recent proposal of inner development goals.²⁷ The

Vietnamese monk Thich Nhat Hanh, founder of engaged Buddhism, beautifully and simply phrased it as, “The way out is in”²⁸. In the field of metadesign, an uncompromisingly systemic and holistic approach to change work, on which we draw in this book, change is envisioned as a constant and agile dance across the domains of the individual, the collective, and world, and back again.²⁹

Gardening your inner planet is not a luxury or an indulgence; it is an essential dimension of radical, systemic and sustained change work. Nurturing your wellbeing, resilience, enjoyment, learning and spiritual growth sets you up for work in the external-facing garden. However, gardening your inner planet is not the same as commodified self-care. Your inner planet cannot be bought or sold; it develops through practice.

HOW MIGHT GARDENING YOUR INNER PLANET HAPPEN?

You will have noticed that giving time and space for reflection features as a priority through this book. The principle of fallowing is also there to give space for gardening your inner planet. There are many practices that can support growing our inner planet – the actual act of gardening,

mindfulness, yoga, arts and craft practices, dance, forest walks. The important thing is that you give space and time for practices that nourish you, and that they engage not only your head but also your heart and guts – your whole body.

We suggest that as you engage with, plan for and reflect on all the other gardening principles in this book to develop your change work, you add the dimension of gardening your inner planet.

1. Paying attention to the soil – what is the cultural, historical ‘soil’ that you are growing from?
2. Planning the garden – what – skills, knowledges, qualities – would you like to grow and in which ways?
3. Sorting out the tool shed – what tools and resources can help you develop your inner planet?
4. Gardening with many species – who around you (especially beyond your familiar group) can you share this journey with for mutual support and enjoyment?
5. Tending, caring, maintaining – what are the daily, weekly, monthly and spontaneous rituals you can do to nurture inner growth?
6. Nurturing edges – what’s at the border of you that triggers welcome or unwelcome feelings; how can you learn from the edges?
7. Responding to change – which cycles of change affect you, and how can you stay committed to your inner planet even at turbulent times?
8. Harvesting honourably – in which ways can you share the fruits of your inner growth; how can you pace yourself so that you have enough energy?
9. Fallowing – which practices of rest can nurture you?

SUMMARY

Gardening your inner planet is an integral part of change work. It is a powerful antidote to the economic growth logic’s focus on external gratification, commodification and individualism. It’s a pursuit of each person, but also vital that an organisation gives space for each member to pursue. The notion of an inner planet was offered to us by a member of the audience, a teacher and activist, when Mathilda gave a talk a few years ago. She said, “yes it’s true we have to do less on planet Earth to stay within its boundaries, but please tell people that their inner planets have no limits”. As well as growing our inner planet to support our work of change, the inner planet is also a place for us to enjoy development without overproduction and consumption.

Although gardening your inner planet is a practice of turning inwards, ultimately it offers a deeper connection with the world around us, people, all species, places and our purpose of working for change together.

26. Macy, J. & Johnston, C. (2012). *Active Hope*. Novato, CA: New World Library.

27. <https://www.innerdevelopmentgoals.org/>

28. Unified Buddhist Church. (2015). *The Way Out is In: The Zen Calligraphy of the Father of Mindfulness*. London: Thames & Hudson.

29. Tham, M. (2022). Metadesign Meditation to Find Agency for Careful Earth Work from within a Ball of Yarn. In J. Wood (ed.), *Metadesigning: Designing in the Anthropocene*. London: Routledge.

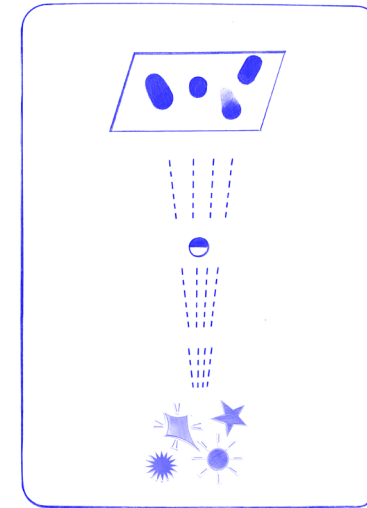
About Earth Logic

Earth Logic – conceptualised by Kate Fletcher and Mathilda Tham – is the bold, radical and simple proposal of an alternative logic or a way of making sense, to that of the dominant logic of economic growth. It came out of our despair that despite decades of action for climate and social justice, things were getting worse not better. We saw the root cause, as well as blocker of change, as economic growth logic, intertwined with sexism, racism, and the favouring of humans over all other species.

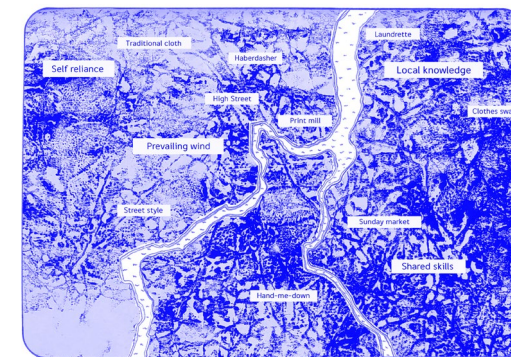
Earth Logic: Fashion Action Research Plan, was published in 2019. The Earth Logic Plan is a visionary and radical invitation to all fashion stakeholders to call out as fiction the idea that sustainability can be achieved within the economic growth logic. Instead, the Plan envisages fashion connected with nature, people and long term healthy futures.

The Plan has reached more than a million people worldwide and is available to download for free from the Earth Logic website. The report is now available in four languages. Seven essential elements³⁰ of Earth Logic are:

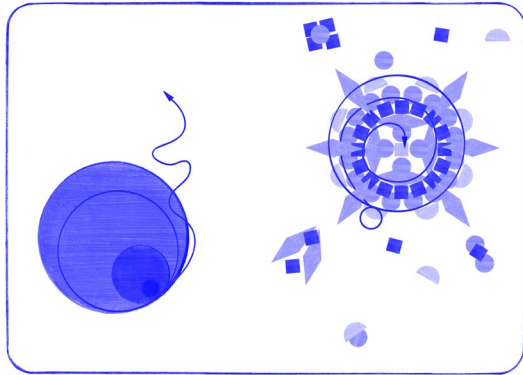
30. Compiled by AlbaEco in 2022.



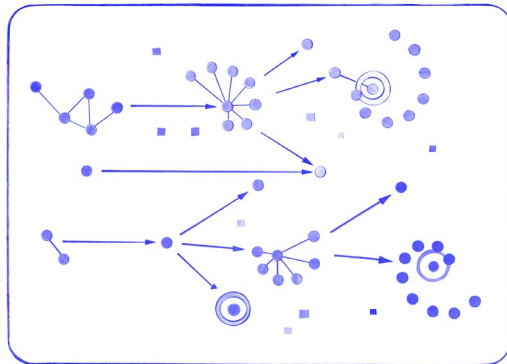
1. Act on the science. Science tells us we have less than a decade to shift to living within the means of our planet, with resources fairly shared across the globe. Acting on the science means taking steps commensurate with this challenge. Changes to products and even discrete systems are insufficient – change needs to be targeted at the very logic that drives the whole of society.



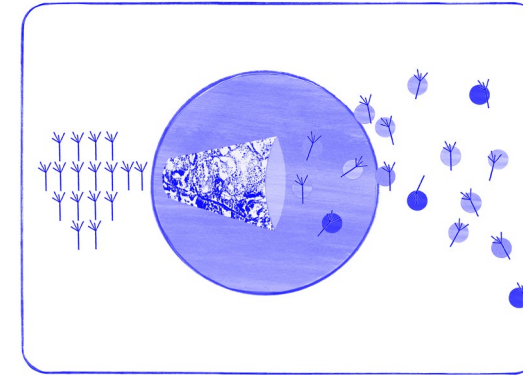
2. Earth Logic is for us all. Earth Logic puts the health and survival of our planet as the primary goal for all fashion activity. This is different from fashion directed by economic growth. A thriving planet with a stable climate will benefit us all and decentralises fashion from an industry-dominated activity, to one shaped and reshaped through genuine collaboration across industry, citizens, education, the media, policymakers and more.



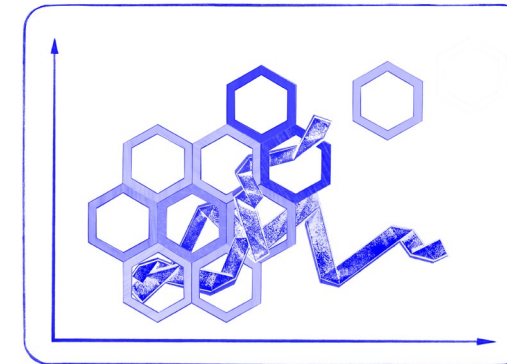
3. It's time for a paradigm shift. We cannot solve our problems with the same thinking that created them. This is why we propose Earth Logic as a new paradigm for fashion that can also be applied to other sectors. This new way of thinking – like the turn of a kaleidoscope – makes it possible to see new patterns and relationships and take action for a fashion system that is a healthy and regenerative force in society and for the planet.



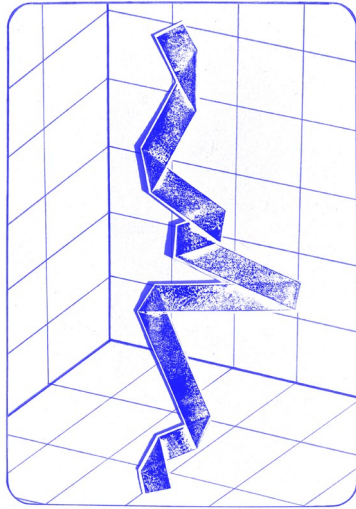
4. Dare to change, even when it is difficult. Three key themes for action are: LESS – bring all fashion activities within the planet's limits. LOCAL – ground action in the needs and creativity of local communities. PLURAL – nurture diversity and social justice to transform nature and society.



5. Dare to learn, communicate and organise. Activate transformation of the fashion sector by: LEARNING – use every opportunity to expand knowledge, share knowledge and innovate based on Earth Logic. LANGUAGE – use words, stories and images that change mindsets from growth logic to Earth Logic. GOVERNANCE – consider how we organise and regulate fashion as an important and underused driver for change.



6. Move from production and consumption to care. The maintenance, use and care of fashion systems are expressions of the Earth Logic. The feminist notion of care radically transforms how we act. Care brings action for climate, biodiversity and social justice from expert work to something everyone can do everywhere. It brings care for relationships, people and other species into the foreground, paying attention to fashion practices instead of products.



7. Stay with the trouble – our future prosperity depends on it. Earth Logic is an uncompromisingly holistic approach to change. This means refusing to separate environmental, social and economic dimensions of sustainability. It also means addressing real challenges, like providing livelihoods in a world of less production and consumption.

Earth Logic continues to evolve, broadening its scope and focus beyond fashion. This book, concerned with the processes and practices of sustaining change, is part of this evolution.

Images:

1. Earth Logic landscape LESS to fit all activity within Earth's limits
2. Earth Logic landscape LOCAL for action rooted in place and community
3. Earth Logic landscape PLURAL for social justice and diversity of imagination
4. Earth Logic landscape LEARNING (and unlearning) – how to educate, research and innovate;
5. Earth Logic landscape LANGUAGING – how to create mind shifts through words, imagery, stories
6. Earth Logic landscape GOVERNANCE – how to organise, negotiate and regulate
7. Earth Logic value STAYING WITH THE TROUBLE

About the Authors

Kate Fletcher (PhD) is a Professor at the Royal Danish Academy, Copenhagen. She is one of the most cited scholars in fashion and sustainability, and her work, including that on nature, post-growth fashion, fashion localism and decentring durability, defines and challenges the field. She has written and/or edited eleven books available in eight languages and is a co-founder of the Union of Concerned Researchers in Fashion. Her latest work is about design and nature.

Mathilda Tham (PhD) is Professor in Design at Linnaeus University, Sweden and affiliated with Goldsmiths, University of London. Her work at the intersection of feminism, metadesign, systems thinking and futures studies has informed pioneering degree programmes and transdisciplinary research projects in the remits of fashion, ageing, housing, forest. She is co-founder of the Union of Concerned Researchers in Fashion. Recent work includes Oikology – Home Ecologies, a recipe collection for living together within Earth's limits.

Karishma Chugani Nankani is an artist, designer, writer, and illustrator. She was born in Casablanca, Morocco to a family of Indian origin. She has a degree in Fashion Design with Printing from Central Saint Martins College, and an MFA in Design Futures from Goldsmiths, London. Karishma currently lives in Madrid where she works as a part time fashion designer. She has published several books, and participated in collective and solo exhibitions internationally. She also teaches creativity workshops at her moveable school L'École de Papier, as well as institutions such as the Prado Museum. What ties all of her multitude of interests, cultures and disciplines together is her love of storytelling.

	SHORT DEFINITION OF THE GARDENING TERM	WHY IS IT IMPORTANT?	WHEN DOES IT HAPPEN?	OTHER SPECIES AND FORCES INVOLVED WHICH ADD UNPREDICTABILITY
PREPARING				
– Composting	The natural process of recycling organic matter, such as leaves and food scraps (often in a bin), into a fertiliser that can enrich soil.	To return nutrients to the earth thereby improving the health of the soil.	Through the year, adding it to the soil in fallow periods, when planting out or as a top dressing.	Worms, rats, moles, mice, bacteria, fungi via the mycelial network, leaves (making leaf mould).
– Fertilising	The addition of enriching material to soil, such as compost, bonemeal, animal manure.	To improve the health of the soil to create better conditions for other actions.	Typically, once a year.	Worms and beetles blend in the new materials, plants like clover is used as 'green manure', seaweed as compost, horses provide manure (indirectly).
– Digging	The action of breaking up and moving soil.	To rotate the soil, mixing it, adding bulky materials like compost. To create space for new plants.	As needed, though digging can lead to compaction of the soil, reduce air flow and water retention. General guidance is to dig sparingly.	Subterranean mammals: moles, foxes, badgers, hedgehogs. Creatures that bury seeds and nuts: squirrels, jays, mice (like acorns for instance). Seismic activity, landslips, erosion also move the soil.
– Raking	The scratching or scraping of the soil surface to prepare it for sowing.	To create a smooth surface of soil into which seeds can be sown.	Before sowing.	Cats, burrowing mammals and insects disturb the soil surface and add new features to the soil.
PROPAGATING				
– Sowing	The planting of seed by scattering it in or on the earth.	To grow the plants of choice.	Theoretically at most times of year with enough heat. More practically when the seasonal conditions are suitable for germination and growth without too many inputs. Sowing can be direct into the ground where the plant will grow or into a pot or tray. Typically seeds need protection from weather extremes.	Vectors which include wind, gravity, and beings like birds, mammals, squirrels, trees, flowers can aid sowing by spreading seed and, in the case of birds and mammals, sometimes eat it.
– Germinating	The process by which a seed begins to grow and put out shoots.	To access the energy and genetic material stored in the seed.	After sowing, with the right conditions.	Many variables add unpredictability to germination, including: sun, cloud, rain, humidity, day length, pigeons, mice.
– Pricking out	To separate seedlings growing closely together.	To reduce the number of seedlings growing in an area in order to afford others the space they need to reach maturity.	After germination.	Animals like slugs, snails, pigeons and mice as well as frost all reduce the quantity of seeds that reach maturity.
– Potting on	To move a plant together with its roots into a larger container.	To replant seedlings into more spacious containers to give them more room to grow.	After germination and only if seeds were sown densely.	Animals like foxes, slugs, snails, pigeons, mice can often hinder the growing on of plants. Likewise too much cold weather, dry weather, wet weather are heavily involved in the process of potting on.
– Planting out	To transfer a plant from a protected or enclosed place (like a windowsill, pot, greenhouse) to the open.	To move a plant to a new site, typically where it will grow to maturity.	After a plant has developed a root system and sprouted. Critically the risk of frost or water damage must have passed.	Weather conditions such as sun, rain and cloud cover influence what happens when you plant seedlings out.
– Pollinating	To transfer pollen from one plant or part of a plant to another so that new plant seeds can be produced.	To fertilise a plant so that it fruits. Pollinating is essential for life.	When the plant is in flower.	Insects such as bees, wasps, moths, butterflies help pollination; hungry birds can peck out flowers and interfere with the pollination process.
– Earthing up	To cover (part of a plant, especially the stem) with soil in order to protect from frost and reduce light exposure.	To reduce damage to a plant so it remains edible and it creates more growth or better flavour and colour.	In the mid part of the growing season.	Digging animals like hedgehogs, foxes, badgers can disrupt earth covers.
– Watering / irrigating	To add water to a plant.	To carry essential nutrients into plant tissues.	Throughout the growing season, the amount varies depending on which plant and the point in the growing cycle.	The water cycle, the water table, weather and climate all influence whether supplementary water is required.
– Weeding	To root out or take away plants growing out of place.	To remove certain plants from an area so as to increase access to sun, water and nutrients for intended ones.	Continuously.	Neighbouring plants can smother other ones, acting to partially weed an area; slugs and snails also remove plants, of all types.
– Staking	To add an external structure around a plant.	To provide support to plants that lack strong stems but benefit from being held off the ground. Historically this service would have been provided by growing plants with different needs together.	When plant stems are unable to hold the weight of a flower head or fruiting body.	Structural plants like trees and bushes, and rocks can act as stakes for others. Here the plant in need of support must be positioned near to strong features like trees and rocky outcrops.
– Training	The orienting of a plant in space, achieved by techniques that influence the shape, size, and direction of plant growth.	To encourage a plant to grow in a particular area, mainly done for aesthetic reasons.	Throughout the growing season.	Structural plants like trees and bushes as well as rocks will naturally influence the direction of plant growth. Rabbits, mice etc can eat leading shoots with the result that growth is rerouted elsewhere.
– Pruning and cutting back	To trim by cutting away dead or overgrown branches or stems.	To get rid of dead wood and stimulate new growth; to shape a plant; to protect parts of the plant that are underground.	Either before the growing season starts or after it is finished, depending on the type of plant.	Birds (snapping branches with their great weight!) can naturally prune brittle branches of trees.
CONSIDERING				
– Fallowing	To leave land uncultivated for a season or more.	To actively rest land as part of a process of recovery.	After a productive period. This can be during the winter months, though often a longer time is beneficial.	Commercial pressures for increased productivity.
– Crop rotating	To grow different crops in succession on a piece of land to avoid exhausting the soil and to control weeds, pests, and diseases.	To change the plant type grown on a particular plot in order to keep the soil healthy. Different plants add to and take from the soil in different ways and rotation cares for the composition of soil nutrients.	After a crop has finished, typically on a yearly basis.	Birds, mammals scattering seeds, trees dropping seeds can interfere with planting schemes.
– Companion planting	To purposely position different plants in close proximity which enhance each other's growth or protect each other from pests.	To sow several plant types together that complement each other's needs and mutual growth.	When plants are initially sown or planted out.	Creatures such as jays and squirrels who bury seeds, self-seeding plants of all sorts can add additional surprises to planting.
ENJOYING				
– Harvesting / picking	To collect in crops.	To gather in what is grown.	When a plant's fruits are ripe / shoots tender / tasty.	Pigeons, slugs, mice harvest crops for themselves, often not leaving much for others.

Table 1. Part III. Gardening tasks for working in the actual garden and in the work of change

	SHORT DEFINITION OF THE GARDENING TERM WITHIN CHANGE WORK	WHY IS IT IMPORTANT FOR CHANGE WORK?	WHEN DOES IT HAPPEN IN CHANGE WORK?	OTHER ACTORS AND FORCES INVOLVED WHICH ADD UNPREDICTABILITY / DIFFICULTY TO CHANGE WORK
PREPARING				
– Composting	A process of digestion of ideas and practices from a culture or place to enrich future activities. This creates the 'compost' that can be applied at multiple points later in the process.	To enable a mindful engagement with what has gone on before - whether very recently or far back in time - so as to enrich change work and avoid making the same mistakes again and again.	Composting is a slow process of continuously investing in the health of future work. It can be understood as the reflection part of cycles of action and reflection and also typically happens as we complete one project and prepare for the next project.	Lack of time for reflection - the risk is that this kind of essential but quite invisible work is rationalised away when time is scarce of funding limited.
– Fertilising	The action of bringing revitalising ideas, science, practices and questions to change work. This is taking what we have digested from the past - the compost - and applying it to our new work.	To ensure that the change work we do is sufficiently nourished and that it builds on work to date.	Fertilising should take place when change work needs more energy. It is important to keep reflecting on what the project needs to develop soundly.	Lack of time, lack of dedicated space for reflection and care of change work.
– Digging	The task of asking questions, probing, meeting others, creating spaces and places for new initiatives.	To challenge our ideas, to shift perspectives and to check that change work is alive with relevant themes.	Digging should be used selectively in change work. Sometimes it is used in a heavy-handed way, bringing the bulldozers in; it should follow a process of careful & close observation of a situation.	Again, the risk is mindless application of digging when a project comes to a difficult point. It is important to reflect on who to talk to and to ask the critical questions.
– Raking	The action of making a context more receptive to the change work that follows.	To bring ideas together coherently, practise communicating them in different ways for greatest impact.	At the start and key milestones of a project.	A general sense of losing sight of the big picture adds difficulty.
PROPAGATING				
– Sowing	The process of deciding which activities to grow. This can start in small ways by trying different combinations of people, settings, goals.	To grow the activities of your choice in the place, community and at the time where it will have the most possible impact.	At decision-making points, such as when you wish to take a new direction.	Dominant notions that 'one size fits all' and that 'more is better' can be hard to navigate in change work. Mindful change work means working with integrity and remembering that small beginnings can lead to great outcomes.
– Germinating	This is a tender time in the lifecycle of change projects, where the energy is unlocked in the seed of a change idea and begins to spring forth.	The infrastructure around the change project needs to be set up carefully in order to nurture the sort of activity you want.	At the outset of a project.	There is a high risk of losing momentum after the excitement of the signs of first germination. The change project will need continuous care to reach its potential and have impact.
– Pricking out	To select projects with the best chance of making impact in terms of the authentic change goals, such as LESS, PLURAL, LOCAL.	To keep the change work on a radical track.	As part of a reflective process and at strategic points in time when you revisit the work's purpose.	The ease of being seduced by new ideas or opportunities which takes energy and focus away from the authentic change work.
– Potting on	To give the selected change projects more resources to keep growing.	It is important to making explicit and clear choices of which change projects to support.	When a change project is in need of more resources.	It is not possible to allocate time and energy and other resources to everything - you need to be selective.
– Planting out	To introduce change projects to stakeholders outside the project team.	To check if the project is adapted to local conditions, appropriate for the people involved with it and to bring their input into it.	When the change project is ready for feedback.	Learn from and also be selective with the feedback that is given. Not all of it will be helpful. Also ask yourself if the feedback is supporting you to meet your authentic goals.
– Pollinating	To identify and supply a project with the key ingredient or connection it needs to come to life.	Pollinating is the vital difference between a latent and flourishing change project, like connecting a light to its energy source.	Pollination happens when change work needs to be activated.	Pollination can come from collaboration synergising knowledges and skills, an individual's access to education, a project's access to funding and other resources.
– Earthing up	Being selective about what exposure a project gets.	To protect a change project from distracting and damaging factors, such as unhelpful media exposure.	When a project is tender and needs extra protection, perhaps when new ideas and directions are being developed.	It is tempting to agree to all requests from the media and potential collaborators, but a strong gatekeeper can ensure a project's integrity.
– Watering / irrigating	Identifying and circulating a change project's essential nutrients – e.g. making sure information is shared within a team.	To give a project what it needs to thrive, without it a project dries up.	Continuously.	Difficulty in identifying what it is that a project really needs to thrive, and going beyond cliches.
– Weeding	Making priorities in a project clear and removing aspects that are not serving the project purpose.	It is not possible to do everything. Direct attention to selected change work.	All the time.	A sense of overwhelm makes it difficult to decide what to focus on, and it can be especially hard to remove aspects that are culturally seen as desirable (e.g. social media).
– Staking	Providing the change project with a structure, either by developing it close to an existing institution or project that's further ahead, creating a very strong and explicit vision, and finding a mentor.	Staking is especially important for work that challenges or sits outside the dominant culture and does not enjoy the support that, for example, projects with a strong focus on profit have.	When the project becomes visible to the external world.	The resistance to change is strong (change agents often burn out), so do not underestimate the importance of strong support in keeping projects going.
– Training	Leading the change project in a particular direction, to a particular audience through, for e.g. careful use of LANGUAGING.	To allow a project to be better seen and have more exposure and impact.	When a project needs a boost and help to reach its full potential.	The challenge of knowing when to train a project and how much force to apply so that it finds an audience and when to let a project be.
– Pruning and cutting back	Reflecting on the change project's health and impact, removing aspects that are distracting from the core purpose.	To conserve energy for the most vital aspects of the project and keeping the project at the appropriate scale.	As part of regular overview and clearing process.	When you are too close to a project to be able to see what needs to go to benefit overall health.
CONSIDERING				
– Fallowing	Letting the change project, aspects of it, and its creators rest.	Resting is essential to conserve energy and to keep a holistic and systemic perspective of the project.	At regular intervals - daily meditation, and longer breaks as part of a cycle of action and reflection.	Pressures for productivity and the cultural norm of business.
– Crop rotating	To shift focus (such as to a new activity) within a project in order to keep it from getting tired.	To keep energy flowing and stimulate new perspectives.	At regular intervals, typically at the end of a project phase, but can be used during a project phase too.	Everyday tasks getting in the way of the bigger picture.
– Companion planting	To purposely bring different projects & communities together for exchange and support.	To bring energy and knowledge into the project.	It can be beneficial for change work at many stages of development to be placed closely to complementary projects.	Choosing suitable companion projects requires time to reflect and discuss together & commitment to see beyond immediate features.
ENJOYING				
– Harvesting / picking	Appreciating, evaluating and sharing the actual change that the project has made.	Harvesting a moment of real impact. Sharing this & building deeper knowledge about the change taken place & how it can support more change.	Throughout. Change can be brought about through doing the project (the process) and what it results in (the outputs).	Being too modest or overstating.

Table 1. Part III. Gardening tasks for working in the actual garden and in the work of change



Staying with the trouble

Earth Logic Gardening draws on the principles, tasks and metaphors of gardening in a hands-on guide focused on cultivating radical and urgent change.

Gardening brings a changed perspective to the challenge of taking action around ecological, social, cultural and economic issues. It makes change more accessible, more 'here and now' and more about us all. It shows change as a set of practices of care, learning, linking, understanding; relevant if you want to make change from your professional role, your community, or from home.

Earth Logic Gardening guides readers towards ways of conducting change rooted in different values. They shift away from the old dominant economic growth logic and its values of individualism, production, property and power.

Gardening is a process of growing change projects differently, providing a gentle and agile infrastructure.

Drawing upon insights from a broken fashion system, Earth Logic Gardening is relevant whether you are interested in changing fashion, food, the media, transport systems and more. It shows hope and agency in the idea that we can garden change together.

