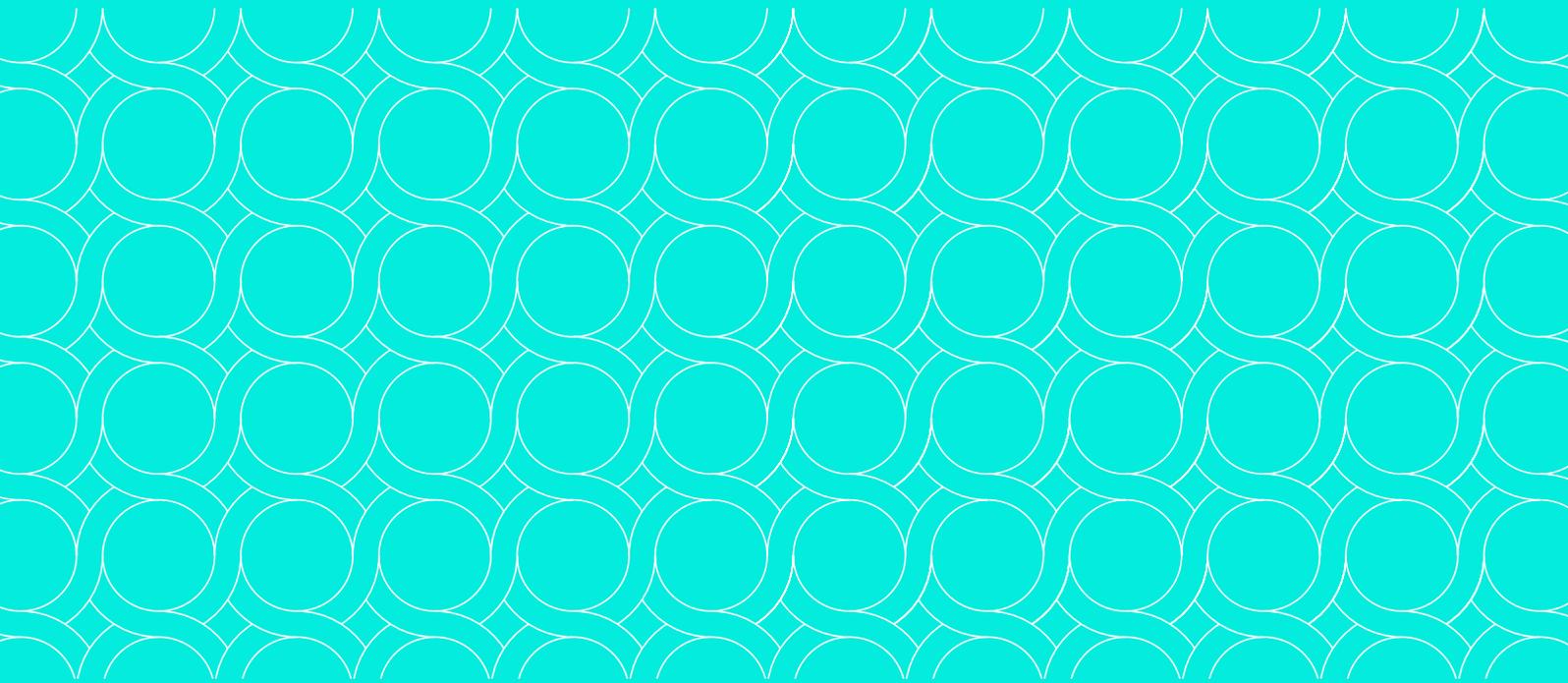


OUR WAY THROUGH

Anthony Painter February 2022



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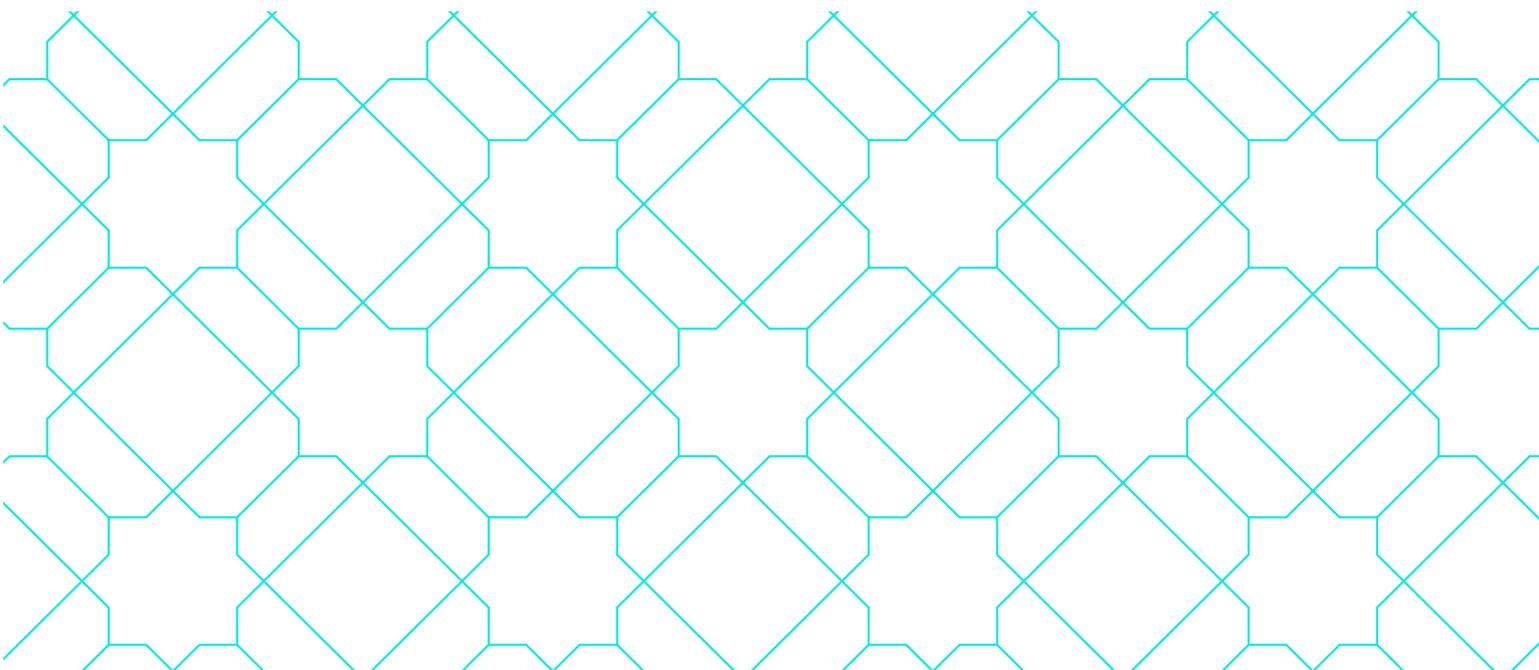
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Enlightenment's dimming light

The past decade and a half has been bracing. As I write, there is a brutal war of occupation in Ukraine, launched by a 19th century throw-back state terrorist. A million refugees have been displaced. By the time we entered the 2020s, an unravelling was apparent. The first flare back in 2007 was a global financial crisis. The second was a set of political storms where populist forces, signals of popular unmet economic, cultural and psychological needs, were in the ascendancy. Alongside these forces global movements for justice found their urgency and voice, not least in respect of confronting structural racism. The third was a pandemic, a reminder of the real ecological boundaries we face. In the background, whole areas of Earth were burned to the ground, our atmosphere polluted, earth denuded of a diversity of species, buried and poisoned by toxic waste. All these forces wrapped around one another and pulled each other to-and-fro. The limits of this way of existing as humans on this planet are upon us.

We are at modern society's outer edge. The project of the Enlightenment is dimming and more of the same values and the political economy and society they surface cannot enable us to resolve the global problems we face. One America is already too much and with China heading that way in consumption and environmental degradation terms, the global impacts will be devastating. Something must evolve and fast if we are not to crash into these limits that have become apparent. COP26 was a step; many, many more steps are required. First there was the unravelling, but unless we face it then there will be reckoning – for many, though innocent, there already is.

Learning and evolving together

There is a volume of documentary evidence behind the nature of these multiple crises. Whilst we should constantly remind ourselves of the depth of the challenge, and it is at scale, there are two urgent questions that are needed if we are to find a way through. In the words of Arundhati Roy,¹ *who do we want to be* at the other side – through the portal? *How do we travel with that sense of purpose* and deep values as we confront the future? Survival requires us as societies to rapidly learn together and evolve.

To make the transition relies on developing three interconnected and mutually reinforcing values: home, community and democracy. Through these we will develop a sense of the 'lifeworld' we wish to safeguard.² The German philosopher, Jürgen Habermas, sees the lifeworld as a space

“Only by creating better life can a better system be developed”.

Václav Havel

1 Roy, A (2020) The pandemic is a portal, Financial Times (3 April 2020) [online] Available at: www.ft.com/content/10d8f5e8-74eb-11ea-95fe-fcd274e920ca

2 Habermas, J (1985) The Theory of Communicative Action: Reason and the Rationalization of Society, Volume I, Beacon Press

of human interaction and civic community, and sees its interface with big systems of money and power – human creations but distinct forces from the lifeworld – as the critical site of human progress and wellbeing. Creativity happens at the frontier between the lifeworld and big systems.



What is meant by 'home'? Some elements of home are in proximity. They are our close relations, those we care for directly and receive care from, as deep commitment rather than reciprocated self-interest. Home is a state of what Michael Tomasello has termed, collective intentionality.³ Any account of the future will need to have a convincing account of close relations. Increasingly these relationships are mediated by technology and we need to develop a more conscious account of how technology can and should act as a bond rather than a thinner of human relations.

Change must come

There are seemingly more distant aspects of home too – most particularly the natural environment into which we are woven. And there we have been committing acts of domestic harm: polluting the atmosphere, depleting the stock of species, and poisoning the water and the ground with toxic waste. This two century long destructive streak is now visible and realised. There is a common understanding that change must come: but how and how rapidly? How can we develop an even greater collective sense of the need for rapid and radical change? And how can we begin to evolve systems of money, power and technology to respond to this new 'common sense'? How can our future be one that regenerates nature as well as ourselves? ⁴

However, a loud warning is necessary here. If this project is a purely technocratic one or one in which our traditional attachment to nature – for example through the re-wilding movement – detaches from sensitivity to human needs, then this journey will either remain incomplete or

3 Tomasello, M et al (2013) Collective Intentionality, Stanford Encyclopedia of Philosophy [online] Available at: plato.stanford.edu/entries/collective-intentionality/

4 Warden, J (2021) Regenerative Futures: From sustaining to thriving together [online] Available at: www.thersa.org/reports/regenerative-futures-from-sustaining-to-thriving-together

will simply run out of time. This may be a challenge with ideas around 'de-growth' which subordinates humanity to nature (and in so doing retains a hierarchy and separateness – albeit one that is flipped from our current modus operandi) rather than 'post-growth' and the regeneration movement which situates nature and humanity in tandem and mutual reinforcement. Time boundaries are real when it comes to restoring our home. And that is why 'community' is an essential second foundation.

Winning hearts and minds

If people do not feel supported and nurtured during the transition, that their needs will not be met, then populism will provoke a backlash that we can't afford. Populism is ultimately an elite manipulated response to real and perceived unmet needs. The cost of regeneration and transition away from the deep decay of home will weigh too heavily on the weakest shoulders without a further reorientation of the systems of money and power. At a basic level this is about economic security and a sense of meaning and identity through work paid and unpaid – including in the home and community. These are the necessary conditions for a legitimate transition through climate emergency.

To ensure public support for transition is retained, a sense of shared risk and shared community will be necessary. There are two widespread barriers to such a sentiment: the 'security trap' and 'crumbling ladder'. Both require communitarian responses.



The security trap is about the tension people face between their need to earn an income, build an asset base, maintain their mental and physical health and care for themselves and their own.⁵ The crumbling ladder of opportunity arises from deep inequalities and a system of lifelong learning that is concentrated in too few hands. The necessary responses come from unconditional sources of income, support for mass asset holding, jobs that pay adequately and workplaces that nurture wellbeing, relentless attention to, and action upon, exclusionary barriers of racism and sexism that deny social capital systematically, and a realisation that all our lives have to be adequately balanced between the private, civic and economic realms. We have to celebrate learning and open out time, space and institutions to enable more to participate in learning through life. Should we not relentlessly learn, we will not be able to relentlessly adapt, restore and replenish. Community also requires strong collaborations of care to help support the young, those with multiple conditions, and the elderly and frail.

Better life, bigger future

A strong community affords each of us a guaranteed income, access to fulfilling and enriching work, support for our caring responsibilities and the means to learn and progress. Such a community is one in which big systems are infused with the lifeworld rather than the lifeworld becoming infected and diminished by the impersonal mechanisms of big systems. Community, supported by an economic floor, is ultimately where we develop a sense of the 'better life'. And there's a bonus. Where we nurture this better life we open out to each other and a bigger future with a wider horizon. We capture time, unfreeze our minds, and create new connections. All of this is supported by cognitive science and experimental data. We know and yet we don't act. And this possibility of a bigger future creates fertile ground for a genuine and rich democracy.

As President Franklin Roosevelt put it in 1944: "We have come to a clear realization of the fact that true individual freedom cannot exist without economic security and independence. 'Necessitous men are not free men'. People who are hungry and out of a job are the stuff of which dictatorships are made".

Our next destination has to be one in which our relationships with each other and with the natural environment are nourishing and restoring. Some have argued that the urgency of climate emergency means that democracy may be an impediment on that journey, slowing us down and diverting us. This couldn't be further from the truth. Like home and community, our democracy must evolve through this transition. And if it can evolve, we will be even stronger collectively.

5 Jooshandeh, J (2021) Key workers in the pandemic [online] Available at: www.thersa.org/reports/key-workers-pandemic

Finding paradise

Whilst a commonplace observation, the experience of solidarity through Covid, most prevalent in the early wave, shows that we have greater reserves of cooperative capacity than a fraught democracy playing out multiple rounds of 'culture wars' might signal. We saw the shoots of what Rebecca Solnit has described as 'paradise built in hell'.⁶ That paradise is mutual aid and assistance. There is something to be built on here. Democratic societies, encouraged in the right way, can resolve major generational collective challenges. And we start from a position of commitment. RSA data has shown that people want to make the transition but don't feel they have a voice in the change. Alarm bells should ring once again.⁷

Rather than resorting to authoritarianism in the style of China or technocracy, a richer, deliberative democracy, that nurtures democratic practice will support the voice of community to help to avert backlash. Experiments in democracy across the world point to this developmental effect of deeper democracy. People evolve their thinking and therefore their values and action. Again, the empirical base is strong as gathered by Claudia Chwalisz and others.⁸ We have thrown away much of the solidarity that was developed in the pandemic, but at least we now know its potential. Albert O Hirschman expounded the potential power of voice over 'exit' (populism) and loyalty (technocracy). Voice is a necessity rather than an obstacle to transition.⁹

Home, community and democracy are bound tightly together. The economic problem is the political problem is the ecological problem. At its core the problem is one of how to safeguard non-dominated human and wider life. How can we contain and humanise the big systems that surround and condition us? How can we restore the natural damage we have created? How we respond to these questions is foundational to us finding a way through.

6 Solnit, R (2010) *A Paradise Built in Hell: The extraordinary communities that arise in disaster*. Penguin Books.

7 Painter, A (2021) The public are ready to go further and faster on net zero [online] Available at: www.thersa.org/blog/2021/10/public-net-zero

8 OECD (2020) *Innovative Citizen Participation and New Democratic Institutions: Catching the Deliberative Wave* [online] Available at: www.oecd.org/gov/innovative-citizen-participation-and-new-democratic-institutions-339306da-en.htm

9 Hirschman, AO (1970) *Exit, Voice, and Loyalty. Responses to Decline in Firms, Organizations, and States* Cambridge, MA: Harvard University Press

Life in the system

So much recent political discourse is framed around two worldviews: the creed of big and the creed of small.

In the big cluster are things such as the economy, the nation, the planet and technology. These are big impersonal forces that seem overwhelming. The creed of small is more focused on place, community, relationships, and family – what is close to us.

This conflict between big systems and the smaller reality of our day-to-day lives creates tension within all predominant political perspectives: conservative, labour, social democratic, nationalist, green, liberal and even populist. Indeed, it could be argued that big systems versus the lifeworld is the central political tension.

If this is the case, then the central political task is to consider what an interface of big systems and small relations can look like as we seek to transition to a future that replenishes both nature and humanity. How can big systems become more infused with lifeworld values of home, community and democracy rather than vice-versa? Can we create space for conviviality, community, civic cooperation, better and meaningful work? And how can big systems better support and sustain the lifeworld?

Max Weber saw political legitimacy as derived from charisma, tradition, or rationality. The weakness of a politics grounded in our immediate relationships is that it can get stuck in the rut of tradition. Meanwhile, the politics of big technocratic systems – rational administration – can become divorced from humanity and herein lies an iron cage.¹⁰ Solutionism, the notion that there are solely scientific, technological or policy fixes to macro human challenges, weakens our collective capacity to find ways through or forces a backlash. We have to be on the journey of transition willingly, not just tethered to it. A politics of charisma, as we have seen in many countries in recent years, often preys upon that backlash. And then chaos – political, geo-political, cultural – soon follows. The United States of Trump and its apotheosis in violence in and around the Capitol building in January 2021 is an acidic taster.

10 Ashworth, R, Boyne, G and Delbridge, R (2007) Escape From the Iron Cage? Organizational Change and Isomorphic Pressures in the Public Sector: *Journal of Public Administration Research and Theory* (2007). Also see: Weber, M (1978) *Economy and Society: An Outline of Interpretive Sociology*. Berkeley, CA: University of California Press, and Benhabib, S and Dallmayr, F (1990) *The Communicative Ethics Controversy (Studies in Contemporary German Social Thought)*. The MIT Press, pp29-32

Of course, Weber was writing as mass democracy was in its infancy. Popular will is also a source of legitimacy in itself, whether or not attached to charisma, tradition, or legalism. And the sense of misalignment between our lives and the big systems that surround us is profound and that is why the politics of big and small are in such conflict with one another.

A new synthesis, one that enables us to navigate climate emergency, global and local inequalities, racial exclusion, public health and the digital age in our midst is desperately required. To bring together Gods large and small requires us first to understand where these misalignments have emerged. It requires us to peer into the big systems of money, power and, increasingly, technology.



Money

In retrospect, the 20 years or so from the collapse of communism to the financial crash were a time of maximum hubris, when capitalism seemed to have solved its internal contradictions. Yet, deep inequalities of wealth, income and security were corroding the hull as the party was in full swing up on deck. These deep structural inequalities brought with them a freezing of social mobility,¹¹ financial instability¹² as unsustainable debt took hold, and widespread economic insecurity¹³ experienced by many. Destitution remained a feature even within the wealthiest nations.

11 Cook, G (2019) The economist who would fix the American dream. The Atlantic. 17 July 2019 [online] Available at: www.theatlantic.com/magazine/archive/2019/08/raj-chettys-american-dream/592804/

12 Rajan, RG (2010) How Inequality Fueled the Crisis. Project Syndicate, PS25. 9 July 2010 [online] Available at: www.project-syndicate.org/commentary/how-inequality-fueled-the-crisis

13 Painter, A (2021) Economic security as mega-challenge: policy and civil society pathways to change. RSA YouTube webinar. 8 March 2021 [online] Available at: www.youtube.com/watch?v=A9tYmXJaDI4

Capitalism has relied on four critical features:

- A set of credit and financial institutions that encourage risk matched with legal protection and intellectual property for those who take those risks.
- A growth mindset of relentless acquisition: a spirit of accumulation.
- A state to support and safeguard sufficient inclusivity including through enlightened social reform in the late 19th and 20th centuries.
- Scientific knowledge to underpin technological development.

The limits of expansionary economies

These all came together powerfully for two decades after the collapse of the Berlin Wall in East and West. The model was grow and sometimes redistribute and, if not redistribute, then invest in public services. This model of state sustained capitalism – the essence of the neo-liberal age – was a developing consensus across Europe, the US, much of South-East Asia, South America, and increasingly in China too.

The problem is that an expansionary economy faces limits. We are already beyond these limits in many ways not least in the midst of an extinction event.¹⁴ Traditionally, within the economic system, we have drawn most attention from the economics profession, which has devoted itself to managing scarcity arising from frontiers of technology, production, organisations, regulatory environment, management, trade and stable credit. But the most critical limits were outside the economy itself: in society and in nature.

This expansionary logic of capitalism faced external frontiers – limits to growth – including impact on human quality of life and the environment within which we exist. From the 1970s onwards, people such as Donella Meadows et al pointed to the ecological limits to growth;¹⁵ more recently post-growth theory and practice has also pointed to wider social limits.¹⁶ Those internal limits now force us to reconsider how the economy functions – and that will certainly mean de-prioritising expansion at all costs.

De-growth politics

Limiting our breach of the limits doesn't mean de-growth as such.¹⁷ Indeed, one could argue with some force that a de-growth agenda limits our ability to gather resources to, for example, de-carbonise the energy system. Whilst advocates of de-growth don't argue that lower income countries shouldn't grow, it is difficult to see such countries acquiring support in their development in a de-growth environment – not least because the risk of the wealthier world withdrawing from wider international obligations has to be real given internal competition for resources. With a shrinking or limited tax base, are governments going to prioritise domestic health systems or Sustainable Development Goals?

14 For more information see: en.wikipedia.org/wiki/Holocene_extinction

15 Meadows, DH et al (1972) *The limits to growth*. Potomac Associates – Universe Books. USA

16 Jackson, T (2021) *Post Growth: Life after Capitalism*. SL Polity Press

17 For more information see: en.wikipedia.org/wiki/Degrowth

The answer seems obvious. The politics of de-growth, in the context of a mass consumption society, seem unimaginably tough.



Instead, in line with a post-growth agenda, the money system requires re-engineering as a *life economy*. In other words, how can we re-orient our credit, finance, innovation, production and labour markets to support and sustain life: life on earth and human life within that. More on this will be outlined in part three.

Without a life economy, three ecological crises – pollution, waste and extinction – will only worsen. These will interplay and we will reach points of no return where our existing lives are increasingly threatened. And three social crises: mass economic insecurity, (mental) ill-health, and loss of sense of place and identity will deepen. These crises have been driving a politics of protest and distraction as people feel disconnected from power over their lives and a sense of diminished status and feelings of respect.

Crises of ecology and society

The ecological crisis is a social crisis and both are political crises and each generate negative feedback loops. Each element interplays with the other to take us closer and beyond the limits of a sustainable lifeworld and in the coming decades we are likely to go way beyond. A life economics where our overarching aim is the sustenance and quality of all life is the mindset and goal.

Power

The relationship between money and power systems has been dynamic and mutually reinforcing over time. The modern era has been defined by capitalism underpinned by the state. That is why modern capitalism is not so much an economic system, but a system of power. The economy has been defined by power structures at least as much as vice versa.

If our mission is to seek 'a way through' then there are two obvious dead ends: technocracy as dominant system and charismatic populism.

Technocracy puts the interests of the future over the present and its best modern case is Singapore. However, Singapore is an unusual case, an exception, in that it has been able to generate high trust in its institutions whilst containing democracy. This may be due to starting from a low economic base in the 1950s, geographical position, scale, common values, visionary leadership or an exceptionally modern skilled public administration. Nonetheless the risks it faces are no less significant. It is an exception that faces extraordinary climate risk as a modern city on the equator fuelled by air conditioning. In most cases, however, technocracy risks populist backlash as people feel a sense of alienation and disempowerment. And that is why the transition to a regenerative future requires more than technology and technocracy alone.

Technocracy and techno-populism

For countries with a deeper set of democratic values, the dilution of democratic authority over technocratic decision-making could be too much. More frequently, in deeply technocratic societies there is a fusion with authoritarianism such as we see in China or Vietnam or Pinochet's Chile or the Soviet Union. Technocracy needs to attach itself to another source of legitimacy. Oddly, we are seeing the rise of what Chris Bickerton has termed 'techno-populism' where a charismatic politics of grievance or insecurity such as seen in recent years in Italy, France, and the UK, needs a technocratic state to enable some level of competent government.¹⁸

There is an argument that you could see an authoritarian technocracy locked in on a moon-shot mission to reverse the acceleration of capitalism beyond social and ecological limits. It would rely on nudges, data analytics, solutionism, super-forecasting, ground-breaking energy technologies, smart regulation and cities, and AI behaviour management including through identity and behaviour checks (Covid passports recently introduced across Europe being an example). Essentially, it would be a technologically and cognitively managed society.

The risk is that this model of top-down technical transition will struggle to retain legitimacy without repression – and modern intrusive technologies create the space for such repression to be readily available and hidden.

¹⁸ Bickerton, CJ and Accetti, CI (2021) *Technopopulism: The New Logic of Democratic Politics*. Oxford University Press

China's climate transition is likely to be an increasingly repressive one as the state struggles to achieve its climate goals or the goals themselves may simply be discarded. Technocracy as the dominant model will either fail to deal with the pace and scale of the challenge or require escalating force and manipulation to succeed: surrendering democracy and freedom in the process. The iron cage of techno-bureaucracy is a very big price to pay. Technocracy contains within itself deep risks.

The price of discarding democracy

Those who flirt with discarding democracy on the road to transition (as David Wallace-Wells¹⁹ and James Lovelock²⁰ have done) are playing a very dangerous game indeed. Even if we get to the other side of transition, which is less likely without rich democracy, we will have surrendered core democratic values. That price is too high.

Whilst technocracy could be expected to work towards carbon and social transition, charismatic traditionalism, the assertion of the moral purity of a 'people' through time over corrupt politicians and administrators, will find every means possible of slowing and reversing change. Already, we are seeing this play out, not through climate denialism necessarily, but through climate delayism. For example, Lord Lawson's Global Warming Policy Foundation declares itself to be "open-minded on the contested science of global warming ... deeply concerned about the costs and other implications of many of the policies currently being advocated".²¹ Sounds reasonable, right? This perspective is groundwork for a charismatic and populist politics citing costs and impositions on people, holding onto the force of inertia through our traditional lifestyles of late 20th century capitalism. Make no mistake, this framing will be an increasingly powerful political force.



19 Wallace-Wells, D (2019) *The Uninhabitable Earth*. Penguin Books. Also see: Gough, S (2019) Author David Wallace-Wells: 'It's possible that to truly avert catastrophic warming, we'll need stronger-armed government' 11 September 2019 [online] Available at: www.channel4.com/news/author-david-wallace-wells-its-possible-that-to-truly-avert-catastrophic-warming-well-need-stronger-armed-government

20 Lovelock, J (2010) James Lovelock: Humans are too stupid to prevent climate change. Interview with Leo Hickman. Article. *The Guardian*. 29 March 2010 [online] Available at: www.theguardian.com/science/2010/mar/29/james-lovelock-climate-change

21 For more information see: www.thegwpf.org/

Populism of this kind is ultimately a thin form of democracy that contra technocracy places the present over the future. The strategy is to present a folk 'common sense' that uses probabilistic scientific knowledge to delay action and emphasises costs of change over the risks of failing to, and the wellbeing of future generations. Even soft versions of this will impair our chances of minimising or mitigating climate emergency. If this viewpoint is dominant in fast-growing parts of the world, as seems highly likely, the task of transition increases by orders of magnitude.

Common sense interconnections

In essence, the technocratic and charismatic-traditional responses each contain important truths. The mechanisms of the state will need to be transformed, including how the state creates, in the terminology of Mariana Mazzucato, 'missions'.²² Technocracy is a necessary set of deft tools, but ultimately too weak or dangerous as the dominant source of legitimacy. Charismatic tradition highlights and taps into the social crises that exist alongside the ecological crises: insecurity, ill-health, and threatened identity and belonging. It seeks to transform them into mechanisms of resistance and what Pankaj Mishra has identified as resentment, a loss of sense of worth and status²³ (something also explored extensively by Francis Fukuyama²⁴).

There is a way through: to deepen rather than thin out democracy further. For this, a new and emerging 'common sense' around our interconnection with each other and nature needs further encouragement, a different 'structure of feeling' in the words of Raymond Williams.²⁵ The data on the effectiveness of deep democratic process, where a wider group of people than representatives or executive policymakers alone are brought into decision-making, is very promising. People learn through doing, open themselves up to greater pools of knowledge and skills, and become more capable of considering a longer time horizon. This is precisely what the RSA discovered in its Citizens' Economic Council²⁶ – though these outcomes have been seen in many other settings besides including in Climate Assemblies.²⁷ The impositions of the money system make participation and contribution in these ways more difficult as insecurity narrows our cognitive bandwidth and our available time.²⁸ But again, that is why we must consider democracy, ecology and society together and not as separate domains.

22 Mazzucato, M (2022) *Mission Economy: A Moonshot Guide to Changing Capitalism*. Penguin Books

23 Mishra, P (2017) *The Age of Anger*. RSA event. 2 February 2017 [online] Available at: www.thersa.org/events/2017/02/the-age-of-anger

24 Fukuyama, F (2019) *Identity: Contemporary Identity Politics and the Struggle for Recognition*. Profile Books

25 O'Connor, A (1989) *Raymond Williams, writing, culture, politics*. Basil Blackwell. NY USA

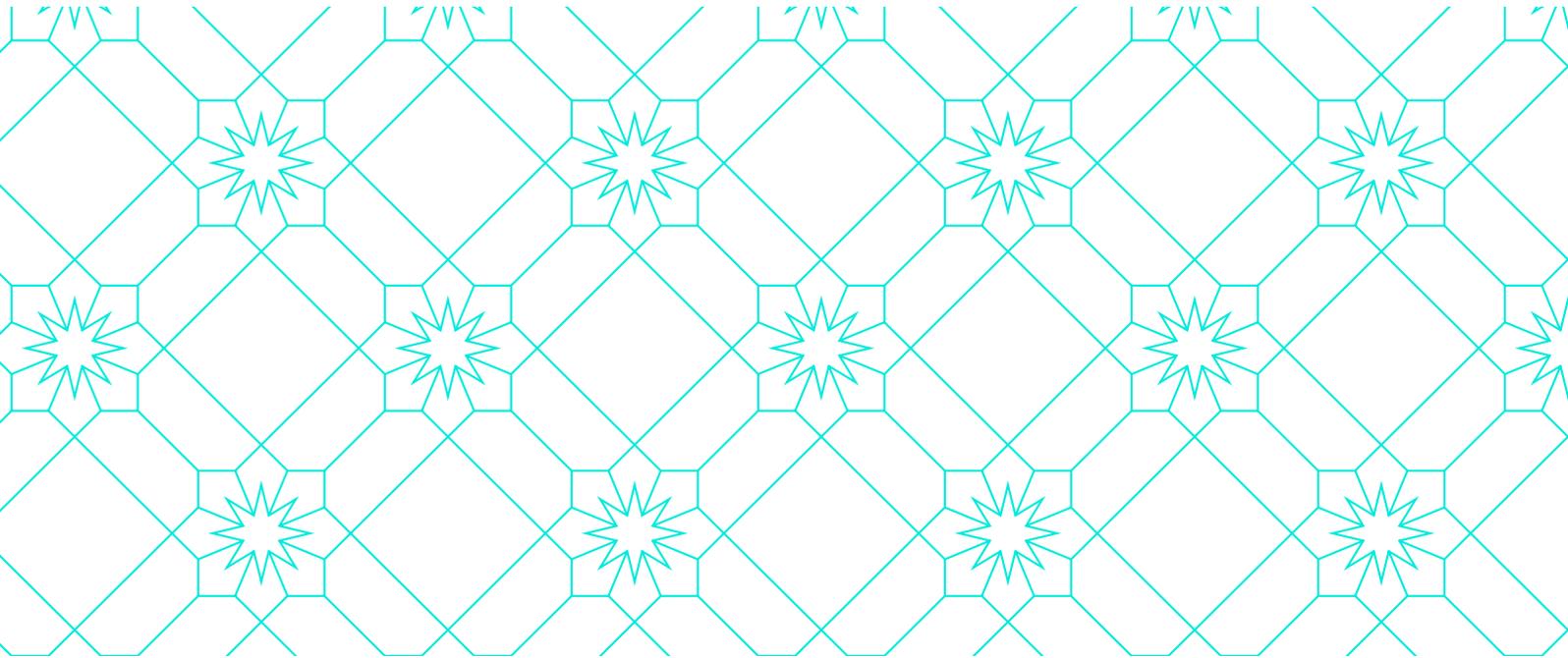
26 For more information see: www.thersa.org/projects/archive/economy/citizens-economic-council

27 For more information see: hal-enpc.archives-ouvertes.fr/hal-03119539

28 Mullainathan, S and Shafir, E (2013) *Scarcity: Why having too little means so much*. Times Books/Henry Holt and Co

Connecting to local eco-systems

And when we do, we will create life places where people feel a greater sense of connection to their locality and local eco-systems. We will recreate a sense of home, belonging, and connection with others and future generations. In this sense, democracy can be, rather than a means of justifying technocratic or populist elites, a life institution in and of itself.



Technology

It may seem odd to describe technology as a 'system'. Some might prefer to describe it as 'tool', a means of taking raw materials and transforming them into something useful. Others might argue that in fact technology is simply a subtle means of oppression, a mechanism through which money and power systems accumulate wealth and status in the few. There is quite a lot of space between benign and malignant accounts of technology.

The benign (and beneficial) account of technology was the predominant view until very recently indeed. Last year, before Congress, Mark Zuckerberg, founder of Facebook described technology as a tool. Whether he truly believes that or not, and it is difficult to believe that he could, this linguistic deflector of tool, an inanimate object there for our empowerment, doesn't hold water. As documented by Kate Crawford, Shoshana Zuboff, and many others, it is more likely we are the tools of technology rather than the reverse.²⁹ And technology is an emerging system in its own right; one that has penetrated deep into the lifeworld.

In what sense is technology a system? Systems have a number of features. They are pervasive, ie they are everywhere. There is no detachment from systems in the way that we can, for example, walk away from organisations such as an employer or institutions, such as a church, and this is as true of technology as it is of power and money systems.

Technology begets technology

Systems have an internal logic that replicates over time. The current logic of technology is that it begets even more technology – centripetally attracting capital, labour, and us as consumers. A second logic is that it is biased, favouring some of others as algorithmic bias, technological aptitude, and winner takes all platform markets ruthlessly discriminate.³⁰
³¹, ³² The third logic is that modern technology is a series of interlocking applications, constantly reconfigured for new purposes, rapidly magnifying and accelerating the technology system itself.

The third feature of the human systems of interest here is that they have been designed by humans over time – albeit without end goals in mind necessarily – and this design conditions their behaviour. None of the systems of money, power or technology have been designed with an *end* in mind. In fact, many competing interests, values and objectives have gone into evolving these systems over time. But because they have

“We do not
ride on the
railroad; it
rides upon
us”.

Henry David
Thoreau

29 Crawford, K (2021) *The Atlas of AI: Power, Politics, and the Planetary Costs of Artificial Intelligence*. Yale University Press and Zuboff, S (2019) *The age of surveillance capitalism*. Profile Books

30 Acemoglu, D (1998) *Why Do New Technologies Complement Skills? Directed Technical Change and Wage Inequality*. *The Quarterly Journal of Economics*, Vol 113, No 4 (November 1998) pp 1055-1089. MIT Press [online] Available at: economics.mit.edu/files/3809

31 Perez, CC (2019) *Why Everything From Transit to iPhones Is Biased Toward Men*. Interview with Lauren Goode. Article. *Wired*. 2 July 2019 [online] Available at: www.wired.com/story/caroline-criado-perez-invisible-women/

32 Parker, GG, Van Alstyne, MW, and Choudary, SP (2016) *Platform Revolution: How Networked Markets Are Transforming the Economy and How to Make Them Work for You*. WW Norton & Company. NY USA

emerged through human design there is the possibility that they can be *re-designed* as human systems. This distinguishes such systems from, say, nature which, whilst clearly a wider eco-system, is not one that has been designed (that debate was resolved long ago).

Whilst technology is one system that is universal, it is comprised of many individual technologies. The major social media platforms are more like the latest phase of the entertainment, consumer, and advertising economy. Green tech is our slow response to pierced ecological limits. Bio tech is concerned with re-engineering the human body to resist infection and degeneration. AI, deep learning, and machine learning underpin the core logic of all these technologies and more besides assisted by computer power and the coming quantum computer age. Robots turn this core hardware and learning software into physical strength, force and dexterity at velocity.

Serving and endangering life

These are radical technologies as Adam Greenfield describes them.³³ They are universal but also pervasive, powerful and biased. They are everywhere: they are within us, between us, and around us. They are woven through the systems of power and money and without keen oversight create conditions for universal surveillance, manipulation and exclusion. These technologies serve life, safeguard it, and enhance it but also risk dividing us, disempowering us and distracting us.

Where technology is cast as a neutral and empowering tool, it is sold as our 'get out of jail free' card when it comes to planetary limits – a broad line taken from techno-optimists such as Andrew McAfee.³⁴ Such accounts tend to observe the relative 'de-coupling' of carbon emissions from productivity and growth. This is real and important. However, it is not sufficient in scale and pace or without risk of backlash. Much more will have to be done, to shift state, society, and capitalism beyond ecological harm and absolute levels of resource extraction, pollution, and waste matter over time not just relativities.

How we integrate technological shifts over the coming decades will have deep consequences for our ability to safeguard home, nourish and protect community and nurture democracy. Carlota Perez, and Thorsten Veblen before her, have documented how technology is a force of history.³⁵

³⁶ We are not powerless: we can shape that direction through human institutions. Technology is a human system after all.

33 Greenfield, A (2018) *Radical Technologies: The Design of Everyday Life*. Verso. London, NY USA

34 McAfee, A (2020) *More from less: The surprising story of how we learned to prosper using fewer resources – and what happens next*. Simon & Schuster Ltd

35 For more information see: carlotaperez.org/

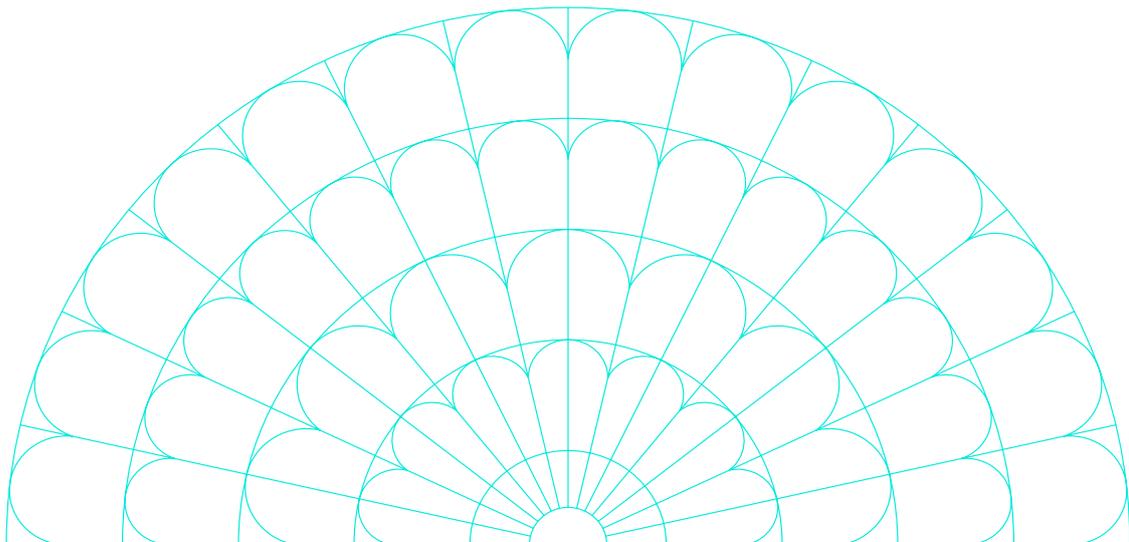
36 Papageorgiou, T and Michaelides, PG (2013) Joseph Schumpeter and Thorstein Veblen on technological determinism, individualism and institutions. *Euro J History of Economic Thought*, 2016 Vol 23, No 1, 1–30 [online] Available at: [dx.doi.org/10.1080/09672567.2013.792378](https://doi.org/10.1080/09672567.2013.792378)

Technology, like the money and power systems with which it intersects, is a system driving humanity to reach beyond sustainable limits: we have evolved a system of technology over the past two decades that we don't yet know how to contain where necessary and harness where we can't. Azeem Azar calls this the 'exponential gap'³⁷ and James Plunkett sees it as 'riding a beast'.³⁸

Democracies must get a grip of technology

Our challenge is to see technology for what it is: a system that must be limited, harnessed, and democratised – not just placing digital devices in more hands but by wrapping democratic hands around tech and the firms who own it. And if we fail to understand that, then for all the tremendous good it offers us, the harm will be greater. Unless we learn how to ride the railroad it will ride us.

All in all, these systems of power, money and technology have been in a mutually reinforcing and directing dance with one another over many decades. And they have led us to an impasse where they are weighing down on the lifeworld and suffocating it. A money system has broken the limits, a power system excludes and trivialises us, and a technology system distracts and manipulates us. And as we enter the next phase of pandemic, with promises of 'build back better' long forgotten, the energy of community that was unleashed dissipated, and with a COP26 agreement that was underwhelming, bigger thinking is needed. How can life economics, life places, and life sustaining technology be expanded and de-personalised systems either changed or contained? That is where part three of these essays will travel: to explore what it means to have a safer home, a stronger community, and a deeper democracy.



37 Azar, A (2021) The Exponential Age Will Transform Economics Forever: Article. Wired. 6 September 2021 [online] Available at: www.wired.co.uk/article/exponential-age-azeem-azar
38 Plunkett, J (2021) End State: 9 Ways Society is Broken & How We Fix It. Orion Publishing Co

Voice from a future generation

I was born in 2050. The year the world was meant to achieve net zero. We know it didn't. That was the goal world leaders set for themselves some decades before I was born. 2050 was also the 10th anniversary of the Global Ecological Crash. It is difficult to imagine the world before this moment. But 2040 was the year the Siberian tundra released greenhouse gases at a volume the world couldn't recover from, Arctic ice caps disappeared for much of the year, and the slowdown in the Gulf Stream became catastrophic leaving northern Europe hot, flooded and frozen at different points in the year. America was ablaze. Much of the rest of the world suffered through starvation, disease, floods, fire, mass heat death and much else besides.

Media commentators and politicians need dramatic ways of naming things, hence the Global Ecological Crash. It wasn't a sudden event really but rather an accumulating catastrophe over many decades, and the warning signs had been there for some time. So many pompous world conferences had produced bold declarations but action that was far too insufficient.

My grandfather, God rest his soul, used to compare the Crash to World War I. He would say everyone in the late 19th and early 20th centuries knew the risks of the great power game and they played nonetheless. They couldn't give up, and the search for wealth and status was too great. They tried to innovate their way out through technological change, building up awesome military machines in the process. All the time Europe was heading towards catastrophe too horrific to imagine and make sense of. And, when it came, it was every bit as deadly as should have been feared. None of it made any sense to anyone looking back at the so-called Great War from future generations. He said that is what my generation would think looking back at his. As I enter my 30s now, I think I now know what he meant. One of the last things I remember him saying to me, which upset me at the time, was: "Don't forgive us, learn from us". He said that should be his generation's dying wish; a generation he called 'generation ostrich'.

He'd often talk to me about life in the 1990s and 2000s, not out of nostalgia but almost out of embarrassment. The West had won the Cold War and a goldilocks economy was driving increasing wealth (if not incomes): peace and prosperity. For years, he said, after a financial crisis in 2007, economists, commentators and politicians fought over if and why new generations were not better off than the generation before them. It was called the 'social mobility freeze'.

“Can you imagine how narrow-minded we were? All we cared about was housing wealth and occupational status. Instead of asking why we weren’t richer, how might things have been if we’d asked ourselves whether we were leaving the world better off for future generations than we found it? We weren’t asking those questions”. – Narrator

The generational gap

My parents and my grandfather didn't see eye to eye over a lot of things. My grandfather's generation tried to imagine what was coming. My parents' generation saw it first-hand and that often made them understandably angry. They saw coastal areas disappear into the sea, species after species becoming extinct, mass migrations from places that were too hot and dry or too flooded for people to live in. Then there was the waste from a 'just-a-click-away' economy polluting the land and sea. Some deluded leaders came to power as conspiracy theories intersected with social media and people wanting to avoid the reality of what was going on (supported by wealthy trillionaires). Then there were horrible wars of ethnic hatred and competition for resources. It wound my parents up that my grandfather would 'fess up': "Yes, we knew, yes we failed to act".

Maybe they were too hard on his generation and maybe my grandfather was too. Perhaps human beings struggle to act on an idea, even one backed by a multitude of data – and boy, did they have the data looking back at the old IPCC reports.³⁹ They didn't do nothing; they just didn't do anywhere near enough. The problem seemed so great and global movements like the 'Ordinaries', set up to pit ordinary people against the experts were brilliant at channelling fear over economic security and shining a light on the supposedly anti-democratic nature of the UN COP process – 'Green Lizards', as they referred to global leaders and climatologists. Carbon emissions were cut by 50 percent by 2040 rather than 2030, as was necessary to avoid the more catastrophic impacts of the climate emergency. Of course, reductions weren't cuts at all. They were the world's energy consumption causing harm at a slower rate - a very different thing. The harm was nonetheless increasing. And so, we arrived at the Global Ecological Crash just as Europe had arrived at the Great War in 1914.

39 For more information see: www.ipcc.ch/



Net zero at any cost

2040 was a pivotal moment. Within weeks a new movement – World x Life – started to spread. It had three aims: home, community and democracy. I'll come back to those. The G150 quickly convened and put in place plans to get to net zero within 25 years which would take its achievement 15 years beyond the original goals set in the 2010s and 2020s. The trajectory the world was on would have taken another 40 years to get there.

Brazil refused to become part of the plans preferring instead to retain its rights to deplete the Amazon Rainforest to graze cattle and mine the precious minerals that made our electric vehicles and portable data devices. Brazil was first threatened and then sanctioned. Yet, its government refused to change course. Brazil's people were suffering economically and that only seemed to create an even more convulsive anti-net zero politics under the banner of Comuns (Brazil's Ordinaries). The United Nations Security Council passed a resolution sanctioning the first War for Net Zero. The Brazilian government barely lasted a month. It wasn't the last such conflict, but none were on the same scale.

Meanwhile, the World x Life manifesto gathered pace. And forgive me here for going into detail but it matters.

Nature is economy is democracy. We must salvage them all as one. And that means more nature, greater economic security, and deeper democracy. Home, community and democracy. Money, power and technology must serve humanity and nature alike. That's World x Life.

World x Life Manifesto

The American anthropologist, James C Scott, once described the neolithic age Domus, translated as 'household', as a symbiotic ecological system. At the centre of the Domus was the human household, but it was clustered with a rich ecology of microbes, vegetation, crops, animals, and set within a wider ecology of woodland and water assets. The 'home' of the manifesto was one in which we are embedded within nature and with each other. This symbiosis is hidden – as had been the harmful impacts of our way of life. We had lost sight, amidst the private accumulation of wealth, to a bigger notion of home.

Our systems had come to see nature simply as a tool for our use: just as those odd tech evangelists from the early part of the 2000s saw technology as a tool. In reality, humanity and nature are interconnected. The sociologist, Ulrich Beck, once observed: "Climate change ... is a product of successful industrialisation which systematically disregards its consequences for nature and humanity". The author, Kim Stanley Robinson, once put it rather more directly: "The invisible hand doesn't pick up the bill".

Radical measures in desperate times

We couldn't go on as we had been. We had to restore a sense of home, community and democracy. The World x Life plan for home had some radical elements. Firstly, there was a commitment to good ancestry.⁴⁰ This was a notion that future generations should be gifted a society that supported all based on a relationship with nature that was co-dependent rather than destructive. There were social foundations and ecological limits,⁴¹ doughnutism⁴² in other words. The world was divided into interlocking bio-regions – as we are now familiar with here in Europe North. Each region was an interconnected system of sustainable local food, energy, waste management and biodiversity. Each region helped the other with technology, know-how and resources when necessary. The Global Ecological Crash had just raised the stakes so far, the choice was act or collapse.

I don't know how best to describe the next aspect of the home plan other than to say that an entirely new form of the state was created – sometimes at a nation-state level as here in England and Wales, sometimes at a regional level as our Scottish and Irish neighbours did within the wider Euro-system. England and Wales, for example, established the £2trn Transition Endowment. This endowment was financed by the Bank of England with the state required to cover the cost of interest for a quarter of a century initially. The Transition Endowment was invested globally and domestically in transition projects including funding for the growth and replenishment of natural capital such as re-wilding the Amazon Rainforest, a service for which the new Brazilian

40 Krynaric, R (2020) The good ancestor: how to think long-term in a short-term world. The Experiment. NY USA

41 Meadows, DH et al (1972) Op cit

42 For more information see: www.kateraworth.com/doughnut/

government would pay a fee. Some have suggested this is ecological colonisation and, admittedly, they may have a point. Domestically, every house was converted to zero net carbon and waste by 2055 with household savings paying the fund-owned retrofit company a monthly fee.

The fund was replenished through returns on the capital invested. To that was added the proceeds from the new carbon tax and a new wealth tax of 0.1 percent of net wealth per person with wealth over £1m. The returns to the fund were more than enough to cover the interest fees and much more besides, which I'll come on to. What's more, to emphasise democracy, the fund was held in a democratic trust with investment and dividends governed by a Citizens' Panel. Moreover, the fund strategy and practice were informed by a Future Citizens' Panel – a group tasked with answering the question: "What would future generations want you to do with this resource?" Similar mechanisms were established in many Asian countries, Canada and the US.

It seems funny looking back and reading histories of the 2020s and the arguments used by political leaders and economists at the time about burdening future generations with debt. Well, as it turned out they ended up burdening us with debt and ecological catastrophe. If they'd done something like the Transition Endowment 60 rather than 40 years ago, we would have ended up with less debt and we might have limited the damage to people and nature in the process!

As a final element of the home strategy, there was a major reform of corporate law and governance in England, Europe and the US. Instead of competition law being based on narrow consumer interest alone it was widened to have legal regard for detrimental impacts on ecological limits and social foundations. Some of these changes had begun through the Biden administration's reform of the Federal Trade Commission in the early 2020s and EU competition law. Sanctions were toughened and went beyond fines or even break-up. In fact, in 2045 two global oil companies had their assets sequestered without shareholder compensation. The cases were upheld in both the Supreme Court and the European Court of Justice not least because the companies had decades to create non-destructive business models and had simply failed to do so. Oil reserves were simply kept in the ground as a consequence.

**“Climate change
... is a product
of successful
industrialisation
which
systematically
disregards its
consequences
for nature and
humanity”.**

Ulrich Beck

One world, many communities

All of this was important but remember the World x Life mantra: "Nature is economy is democracy". And without people feeling supported through the transition, political space for the Ordinaries would have soon opened up again and we would have been back to square one. If people didn't feel part of a community, that they were supported, then they would feel compelled to choose between their own sense of wellbeing and the transition. That would have been a disaster. Luckily, that pitfall was largely avoided.

At the centre of the notion of community was an insight that mutual aid, the spirit of working together, was essential to help each other through and it came to the fore in times of stress and distress.⁴³ Yet, without a sense of economic security - a sense of being supported in life - that spirit of mutual aid would be forever too weak. The major remedy was the Transition Dividend. This was in essence a guaranteed minimum income paid to every person in every household - a universal basic income or basic dividend in the old terminology. This was funded through returns to the Transition Fund with any necessary top-ups from general taxation. The amount was pegged to the reduction in carbon emitted into the atmosphere and the degree to which natural capital was restored to create a sense of common goal and mission. It was redistributive as the wealthiest polluted the most.⁴⁴ Without the dividend, it's difficult to imagine the maintenance of widespread commitment to the transition.

Modern work became very different. People had to train in new fields such as regenerative agriculture, microbial food production, AI energy systems programming, zero carbon plumbing and housing design, and development. There were lots of opportunities. We also had to become more skilled in managing our own environmental impacts through what we ate, what we wore, how we transported ourselves and kept ourselves warm. Sometimes people just wanted to develop a deeper understanding of what was happening to our world and why. The fund supported a system of learning credits enabling people to acquire new skills for both work and life.

43 Solnit, R (2010) *A paradise built in hell: The extraordinary communities that arise in disaster*. Penguin Books

44 Oxfam International (2020) Carbon emissions of the richest 1 percent more than double the emissions of the poorest half of humanity. Press release. Oxfam. 21 September 2020 [online] Available at: www.oxfam.org/en/press-releases/carbon-emissions-richest-1-percent-more-double-emissions-poorest-half-humanity

Work, life and ecological balance

The Transition Dividend left people able to take up their new rights to flexible work and half of the workforce now work less than four days per week. There was more time and space for connection with family and community, greater possibilities to provide the mutual care and support we all need.

The biologist, Daniel Wahl once wrote: “We need to learn from the kind of growth found in natural systems, which shifts from quantitative growth to qualitative growth as the system matures”. That maturation is exactly what the fund, the dividend and the Learning Credits supported. But remember, nature is economy is democracy. And democracy was nurtured and cultivated in entirely new ways after the Crash. Without going into too much of the rich detail out there, the World x Life conception of democracy had three dimensions: civic, civil and economic.

The civic dimension was developed around the more direct involvement of citizens in political decision-making. This was exemplified by the Citizens' and Future Citizens' Panel governing the strategies of the Transition Endowment Fund. But there was also the development of local forms of direct involvement with increasing citizens' rights to be involved in decisions around local transition strategies and budgets. As one leader put it: “More involved citizens mean more informed citizens”. One study found that 12.6 million citizens had been directly involved in deliberative decision-making between 2045 and 2055. The Life Places movement was built out of these deliberations. These were communities where public space and social infrastructures such as libraries and sports clubs were protected. Food, waste, and consumption systems served health and nature together. The community committed to meeting as many of their own needs locally as possible.



Innovation to disrupt the old ways

Civil democracy was nurtured through the creation of social innovation challenges. A locality would set a goal, the recovery of local woodland for example, and would source ideas from local organisations, social enterprises or community businesses, or local educational institutions for instance. The projects that contributed the most to local regeneration – social or ecological – would be funded. Challenges covered so many areas from care provision and the recovery of nature to redesigning waste and recycling systems to skills training and provision. Outcomes were impressive but, most importantly, an active civil democracy was able to flourish with the right nourishment – and support the Life Places movement. People increasingly saw themselves as citizens first.

Once civic and civil democracy and the sense of agency and empowerment that came with them were firmly on the agenda, it was inevitable that economic democracy would follow. And it did. Twenty-five percent of the investments in ecological business development from the Transition Fund were ring-fenced for employee or community-owned firms. That was a decision ratified by both the Citizens' and Future Citizens' Panels. Such firms were prioritised in local purchasing decisions. The observations of the American political scientist, Robert Dahl, that political equality shouldn't stop at the gates to the market were resonant.

And that's it. That's how we are where we are. A global catastrophe and crisis, a new politics with its ideas around home, community and democracy, global commitment and cooperation and a huge sense of mutual responsibility and need to act. We got to net zero in 2058, 22 years ago now. That means in my lifetime we have stopped doing further harm through additional carbon emissions. We might even become net positive.

The collateral damage of revolution

So many important moments have gone in the right way for a few decades. Seems amazing to think that the terrifying two-year-long American Insurrection where right-wing militia groups tried to cancel the 2032 presidential election led to a severe curtailment of the rights of social media platforms. In fact, as we know, most of them are now run out of small South Pacific islands with their oddball owners keeping the platforms going through the activity of a mix of conspiratorial cranks, fantasists escaping to the Metaworld, and remaining remnants of the Ordinaries and various off-shoots. Whenever there is a risk of political poison spilling into the mainstream a digital public health action is taken. We're no longer naïve to the threat they pose following the Insurrection.

At the other side of the spectrum are the WellTECHers congregating frequently in Sonoran Desert or Spain's Sierra Nevada. These were the optimists of old, constantly telling the world how science and ingenuity would be enough. They were seemingly oblivious to the relentless harm that was being done and the dark side of industrial capitalism. Whilst

seemingly harmless, the creed of relentless betterment, lulled us into a false sense of security. At the same time, without wanting to look up from the ground, we were in a state of emergency. Now they have a kind of cult-like feel bringing together wellness and tech utopianism.

The old political parties largely disappeared. Parties of the right either adopted the ideologies of the Ordinaries or they were consumed by it. Parties of the centre and centre-left largely failed to rise to the post-Crash moment and seemed far too conservative for the task at hand.

Green shoots of mighty ideologies

In the early 2030s, the DEGRO movement seemed to be gaining some force, but it quickly fizzled away. Their contention – not necessarily unreasonably – was that growth was incompatible with any transition, so the wealthiest economies had to be reduced in size. They were right about the link between economic growth as a goal and environmental damage, but they missed two critical things. If the transition forced a political choice between transition and economic security, then it had little chance of success. Secondly, growth, whilst not a goal of natural systems, is a common feature. And to get to net zero and beyond required the accumulation and deployment of resources at a scale that was likely to lead to growth, albeit of the qualitative over quantitative kind. Their models of transition ended up being very mechanical.

The POSTGRO movement, emphasising nature and humanity as the goal with the growth of possible outcomes but not the goal of a new system, had greater longevity and, in fact, became a critical strand within World x Life thought.

Not everywhere is on the transition journey. Russia refuses to adapt, and in probably the hardest decision of all, its emissions and waste were adopted by the rest of the world into their regenerative plans. That was a high political hurdle that fortunately was cleared. Russia now spends its time trying to spread the latest Ordinaries' conspiracies into mainstream democracy, sustaining the noise on the old social media platforms, and occasionally invading a neighbouring country. Generally, it is contained. China never made the transition to democracy. In fact, the Chinese blend of nature, economy and authoritarianism – The State of Nature as it is known - stands as a confounding contrast to the World x Life view.

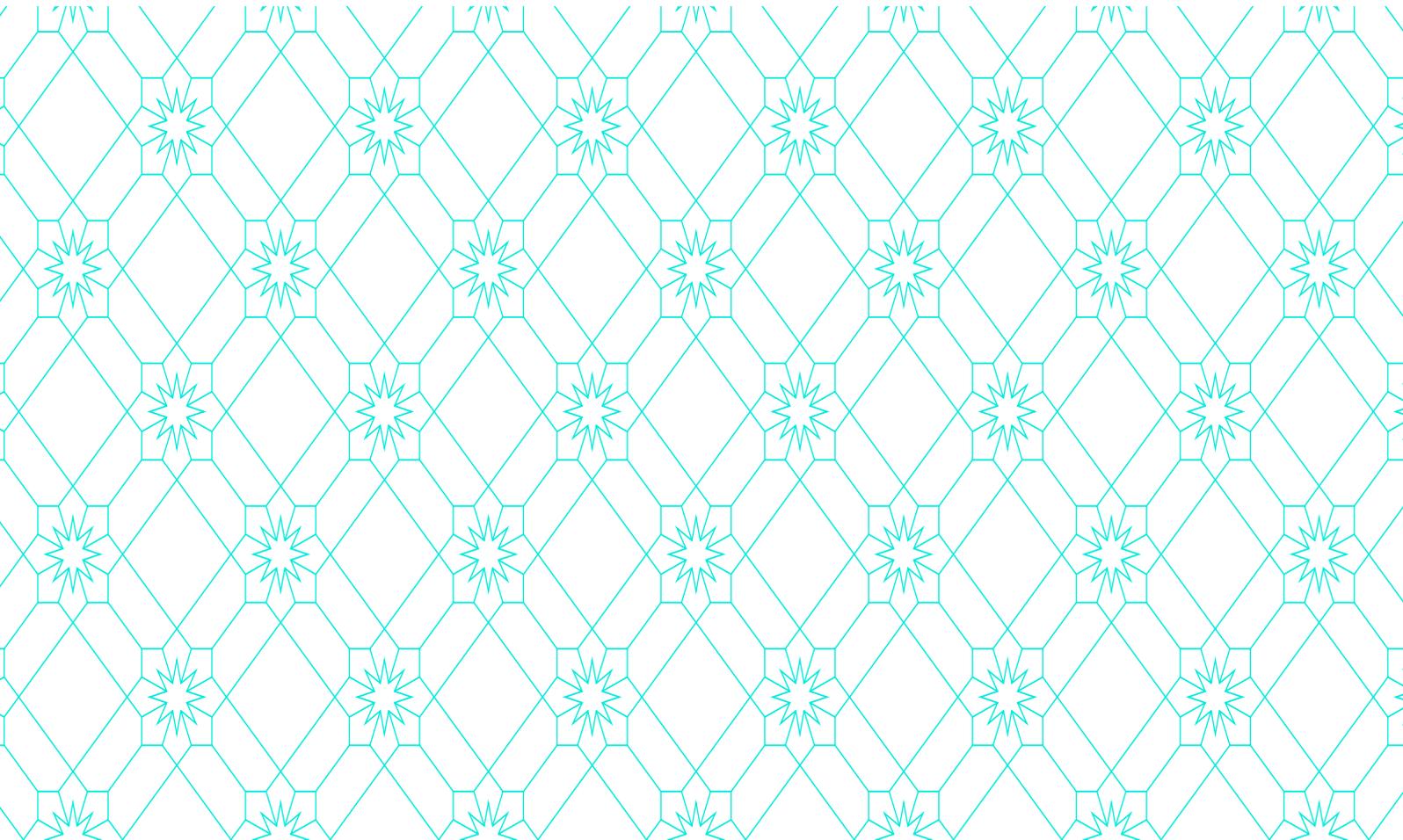
The journey continues

We are not there yet. And as I sit here with my first child, a daughter, due any day now, I know that our good run could abruptly come to an end. As a mother to be I have an eye on the future. I am also sad about what we lost. My father and mother are as proud as could be, but I know the world was a tough and terrifying place for them in their youth.

And here, in Europe North, we endure our heatwaves, floods and deep-frozen winters; our memorial days to places, cultures and species lost along the way come around; our remembrance for the millions of

climate victims serve as a reminder of all that can go wrong, all that can be lost. Those 19th century values of the struggle for wealth and status, of beating the generation before seem so other-worldly now. Strange to think that they were predominant even when my grandfather was born. If my daughter lives to an age that is now common, it's not unimaginable that she will see 2175. Perhaps then, 200 years after my grandfather's year of birth, we will have transitioned to new ways of thinking and acting. Perhaps we will finally see our success in whether we leave things better than we found them.

There is a long way still to go. But there is hope. On the journey through. Each generation leaving things better than the last.



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