

Explorations of sustainability in an unfair world



Just Transitions Explorations of sustainability in an unfair world

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Introduction: On Becoming Visible

It is better to be invisible. His life was better when he was invisible, but he didn't know it at the time.

He was born invisible. His mother was invisible too, and that was why she could see him. His people lived contented lives, working on the farms, under the familiar sunlight. Their lives stretched back into the invisible centuries and all that had come down from those differently coloured ages were legends and rich traditions, unwritten and therefore remembered. They were remembered because they were lived. (Okri 1995. Astonishing the Gods: 1)

Context

We live in the Lynedoch EcoVillage located near the historic town of Stellenbosch, a 30-minute drive from Cape Town. This south-western tip of Africa is where the Indian and Atlantic oceans notionally meet and it is the home of *fynbos* which is the smallest and most diverse of Earth's six biomes. As the first hinterland outpost of the Dutch colonial settlement in the mid-1600s in what is now Cape Town, Stellenbosch is often regarded as the intellectual birthplace of apartheid. This legacy is reflected in the harsh inequalities in wealth and land ownership that still characterise this rich agricultural region.

We started building the Lynedoch EcoVillage in 1999 with a group that included a local housing activist, landless farmers, the local school principal and two architects¹ who were prepared to figure out what it means to design for sustainability. We have, in short, lived through profound transitions in our everyday lives as we have struggled towards a dimly understood goal, working things out along the way, often long after they have happened.

We were fortunate: we could experiment and fail because there was the space for innovation in a society desperate to break from its (apartheid) past, but often without a coherent vision of the future. In a society too traumatised to unite around a specific solution, there was enough uncertainty for a small group of us to mount an experiment that was not ridiculed in advance. Luckily we never knew enough to be too clever about the enormity of the challenges ahead.

After all is said and done everyday life in the village goes on. Ranen, our 17-year-old son, strides down the hill to catch the train as the orange dawn light breaks from behind the towering Helderberg Mountains, chatting to Tebo, Naledi's daughter, along the way. Willem rides out of the gate on his bicycle on his way to work in a local wood factory. Eric, the organic farmer, drives out in his small truck for another day on his organic vegetable farm. Two hours later the shriek and chatter of 300 schoolchildren arriving for school

Gita Goven and Alastair Rendall who now run a large architectural and urban design practice in Cape Town, called ARG Design.

from farms and nearby townships, shatters the quiet of another frosty autumn morning. Then the university students doing their master's degrees in sustainable development arrive — some emerge sleepily from the guest house, others arrive by car and train. They gather in the hall before going out to work on the farm and in the gardens before lectures begin at 09h30. As the day warms, Joseph inspans the six oxen on Eric's farm, coaxing them into another day of ploughing soils that have benefited from a decade of organic farming. In the crèche, 40 small people — some suffering from foetal alcohol syndrome — have finished their daily t'ai chi exercises and are going about their different activities in their carefully crafted Montessori environment.

By the afternoon the pace changes: as the children head home (to some less-than-safe areas), a quieter reflective space opens up. After lunch on the guest house veranda with its spectacular views across the green valley fractured into its patchwork of land uses, the teenagers head up to the 'Changes Youth' clubhouse built into the roof of the crèche. Oblivious to the electricity being generated by solar roof tiles less than two metres above them, they do their homework, plan their sports programmes and chat in a safe environment, far removed from the predatory threats that await them in the few hours between the end of school and the arrival of parents from work.

In the near distance, the sound of building is an ever-present reminder of big things happening — someone out there has placed another brick on a rising wall, hammered home another nail, or lifted another roof truss into place. With every shrill whine of a power tool and dull thud of a hammer, someone gets closer to completing the home of their future memories.

As the light fades and the chill returns, neighbours head back from the vegetable gardens, greeting others along the way, tending their own allotments. It is a routine greeting — a smile, a nod — but the connection is made as if acknowledging yet another moment has passed in that excruciatingly slow process of becoming familiar.

As the light disappears, the solar street light switches on. The worms in the biolytix sewage treatment plant wriggle their way up to the darkening surface to access more oxygen without encountering the light that they seem to loathe, and the pumps switch on to replenish the water tanks with the treated effluent of the day.

Life goes on — oblivious to the hundreds of documents that lie gathering dust in dozens of lever-arch files; documents needed to get all the necessary approvals from government to raise the funds, to appoint the contractors, to constitute the home owners' association, to get housing subsidies from government, and to define with false certainty the semblance of a believable story (or what, in more conventional language, would be called a 'strategic plan').

This book, in many ways, is a tribute to this lived transition. In being part of becoming visible in a place, we were able to bring up our sons while exploring new ways of seeing and being in our troubled but rapidly changing world. The more we endeavoured to teach people about sustainability, as our master's programme matured, the more we learnt from our students. They pushed us to look beyond the dismal platitudes of comfortable critique. They were impatient with the self-satisfying banalities about how bad the world is, especially if the underlying suggestion was that they could do nothing

to change things. They were particularly frustrated with ecologists who talked about how the environment was being destroyed before concluding that if more people were aware of this destruction, things would change. How would things change, the students asked? Many people *are* aware, but what can they do if they are locked into urban systems that condition environmentally destructive behaviour? Were there any practical examples of alternative ways of living? The problem is that most ecologists cannot answer these questions because they have a limited understanding of the dynamics of institutional power and cultural change. Nor do social scientists have answers, because they ignore the ecological context (and often causes) of the socio-economic challenges on which they prefer to focus. Interestingly, it was not solutions as such that the students demanded, but *patterns of thinking* informed by what Gibbons *et al.* have usefully called 'socially robust' knowledge about future orientations at different scales (Gibbons *et al.* 1994). This book is really for these students and their hungry imaginations, but it is also for anyone wanting to share this search for actionable imaginaries.

The perspective and argument in this book is inescapably shaped by the fact that we live and come from the most unequal society in the world. As will be clear in the chapters that follow, what is at stake is not simply a transition to a mode of production and consumption that is not dependent on resource depletion and environmental degradation, but as important is the challenge of a just transition that addresses the widening inequalities between the approximately one billion people who live on or below the poverty line and the billion or so who are responsible for over 80 per cent of consumption expenditure. The very rich who comprise a small fraction of this class of over-consumers enjoy enormous political, economic and cultural power. A transition to more sustainable forms of development that leaves these socio-economic inequalities intact will not, in our view, deliver an end result that can be called *sustainable*. A *just transition*, therefore, must be a transition that reconciles sustainable use of natural resources with a pervasive commitment to what is increasingly being referred to as sufficiency (that is, where overconsumers are satisfied with less so that under-consumers can secure enough, without aspiring for more than their fair share). This, however, will involve deep structural changes that will require extensive interventions by capable developmental states, active commitments by progressive business coalitions, and a mobilised civil society rooted in experiments that demonstrate in practice what the future could look like.

Our experience as co-creators of the Lynedoch EcoVillage and as engaged citizens of the new South Africa fused two seemingly contradictory sensibilities. On the one hand, like many South Africans, we have watched with mounting despair how the great promise of the democratic transition of 1990–1994 has failed to translate into a more just, equitable and sustainable South Africa. Instead, the patterns of elite consumption, intense resource exploitation and grinding poverty that were brutally enforced during the apartheid era have persisted in a different form within an open, democratic and culturally expressive society. What changed was the broadening of the class who now benefit from the wealth to include the new black elites. Our despair was balanced out however — sometimes even neutralised — by the inspiration that came from the gradual process of building South Africa's first socially mixed, ecologically designed community.

Suspended in this paradox of despair and inspiration, we felt compelled to explore both the micro-details of alternative ways of living and alternative ways of understanding the big developments and ecological challenges of our times.

We do not prescribe a specific technical alternative, nor do we satisfy the popular appetite for a simple set of steps for replication. This book is self-consciously and unapologetically 'academic' in the way in which it explores the perplexing logics of a range of different literatures (complete with references so that researchers/practitioners can follow up on the threads of thinking that shaped our own). Each chapter in one way or another synthesises related but hitherto disconnected literatures in order to illuminate new ways of thinking about that particular subject from a sustainability perspective. Although academic writing is often dismissed because it seems overly concerned with its own internal (often arcane) debates, the advantage of the academic discipline is that it maps out the complex overlapping trajectories of thought that shape the assumptions at the centre of the (often partially understood) common-sense ideas that condition everyday life. It is not possible to understand our world — to become visible — without understanding the language we use and the origins of the concepts that are embedded in the common sense ideas that get mobilised in everyday conversations, in the media and elsewhere, all the time. We choose to see academic writing as a 'global positioning system' in a conceptually cluttered world.

This book is also more normative than the average academic text. For us, critical analysis is vital, but insufficient on its own. Drawing from experience, research and inspirations from around the world, we suggest ways of thinking about the future that may assist in building a more sustainable and just world. To this end we strongly agree with Costanza who argues that we need to restore the 'balance between synthesis and analysis'. In his words:

Science, as an activity, requires a balance between two quite dissimilar activities. One is analysis—the ability to break down a problem into its component parts and understand how they function. The second is synthesis—the ability to put the pieces back together in a creative way in order to solve the problems. In most of our current university research and education, these capabilities are not developed in a balanced, integrated way. (Costanza 2009: 359)

So why have we entitled this book *Just Transitions*? We are not offering another grand theory of transition. Nor do we prescribe a particular programme or type of transition. The notion of a 'transition' has a specific meaning and history in South Africa. It is hard to imagine these days, but as recently as 1990 South Africa was ruled by a harsh militaristic regime that was able to deploy a vast modern police force and army to protect the power and privilege of a white capitalist elite that appeared reluctant to face the prospect of a democratic future. The opposition forces had no significant military power, yet subscribed to the view that change would come about by way of a revolutionary rupture. Ironically, the regime and the opposition shared the same theory of change, namely that change is systemic and the outcome is the function of the balance of military power. For the regime, brute force was needed to stop systemic change, and for the opposition

change would come about when the oppressed majority rose up in sufficient numbers to forcefully detonate the collapse of the regime's capacity to govern. In reality, both the regime and the opposition spent at least four years between 1990 and 1994 negotiating a transition that resulted in systemic change but without a revolutionary rupture (Marais 2011; Swilling *et al.* 1988; Swilling & Phillips 1989). The founding democratic elections in 1994 ushered in a new era of unprecedented democratic space. Although many of the fundamental economic problems of inequality and resource exploitation have remained intact, this democratic space has made possible countless innovations and changes across the social, economic and environmental spectrum. They have yet to accumulate into a qualitative shift that will contribute to substantive solutions to the problems of poverty, inequality and resource depletion.

To explain the South African transition it was necessary to turn to a body of literature that took into account more than just the balance of force. This was provided by the remarkable work on transitions to democracy assembled by political scientists Philippe Schmitter and colleagues (Schmitter et al. 1986). This highly influential work revealed that South Africa was not unique. Indeed, it became clear that South Africa was part of a trend that began in Southern Europe in the late 1970s/80s (Portugal, Spain and Greece), spread across Latin America through the 1980s, and extended into Eastern Europe from the late 1980s. Instead of big lumpy categories such as 'the state', 'power', 'violence', 'revolution' and 'class', Schmitter and his colleagues zoomed in on more granular institutional processes, personalities, complex interest groups and relational dynamics in order to reveal unexpected drivers of these 'non-revolutionary regime transitions' that are not easily understood from a traditional 'balance of force' perspective. So while on the surface a stalemate persisted in all these cases for extended periods of time, and although neither side had the combined military and political force to defeat the other, various things started to happen that eventually prepared the way for negotiations and — following all sorts of setbacks and reversals—a political settlement that satisfied no-one completely, but which was seen by a cross-section of key actors as the best available option at that particular moment. These 'non-revolutionary transitions' were not regime change in the classic sense ('seizure of state power', coup d'état or military invasion), nor popular revolution, nor 'decolonisation', nor merely political compromise to maintain the status quo. Something fundamental eventually happened to dismantle the 'colonial' nature of the apartheid state, but in ways that were often quite obscure and unexpected.

At a deeper level, the lesson from the South African transition is that change is divisible: many small changes at different scales (local, national, global) started adding up in a way that created conditions for a 'tipping point' at regime level. The timing of this tipping point and the nature of the outcome were, however, both unpredictable: seemingly tiny factors had disproportionately large impacts within particular contexts in ways that would have been impossible if the context had been different.² But up until this tipping

For example, the South African transition was affected critically by the fact that in 1989 President P.W. Botha (the chief 'securocrat') had a stroke that incapacitated him, and political prisoners went on a hunger strike more or less at the same time.

point everything seemed implacably unchanged. So much so, that many grew impatient and resorted to more extreme violent action to force faster change—a response that triggered equally violent counter-actions to maintain the status quo. Extreme actions had the counter-intuitive impact of reinforcing the resilience of the system (at least temporarily). For the transition to run its course a core adaptive leadership (Heifetz 1994) comprising key movers from both camps was required to 'hold the centre' of an unpredictable process that the word 'transition' seemed to capture. Since 1994, however, the quest for certainty and the tolerance of poverty has threatened the democratic space created by this remarkable transition.

On transitions

Unsurprisingly, the language of 'transition' has started to penetrate the sustainability literature in ways that have influenced our understanding of global change at different scales (for some key examples from different traditions see Brown 2008; Fischer-Kowalski & Haberl 2007; Grin *et al.* 2010; Guy *et al.* 2001; Hodson & Marvin 2010; Korten 2006; Madeley 2002; Rotmans & Loorbach 2009; Scheffer 2009; Smith *et al.* 2005; Van den Berg *et al.* 2011). They are all motivated, in one way or another, by the search for clues using a systems perspective that might reveal insights into how the transition to a more sustainable order might come about. They analyse transition dynamics at different spatial and temporal scales, and they all (either explicitly or implicitly) suggest strategic roles for key agents of change. In our view there is still a way to go before we have a substantial body of literature on transitions to a more sustainable future that reflects a degree of consensus on what needs to happen and who the key change agents really are.

A group of Dutch researchers working within the wider European 'sustainability science' tradition have, in recent years, synthesised technology science, evolutionary economics and structuration theory in order to develop what may well be the first systematic attempt to develop a comprehensive 'theory of transition to sustainable development'—or what is commonly referred to now as the Multi-Level Perspective or MLP (Grin *et al.* 2010; Smith *et al.* 2010). Like this book, they understand the current crisis as playing itself out across the nexus between the global financial systems, market-governance-society relations and the values as expressed in lifestyle and consumption. They define transitions (both in the past, with respect to industrial change, and possibly in future, to a more sustainable order) in ways that we would agree with, namely they are processes characterised by the following:

- They are the *co-evolution* of technological change, consumption behaviour and the institutional reforms that are required to embed the new technologies in society
- Transitions are *multi-actor* processes that engage actors in unpredictable ways from all sectors (public, private and non-profit)
- Transitions are *long-term* processes, often 40–50 years, with distinct internal phases (from initiation to maturation)
- Transitions are about the *reconfiguration* of the institutional and organisational structures and systems of society.

We have not, however, adopted the Multi-Level Perspective nor any other general theory of transition to make sense of the issues addressed in the various chapters. We have chosen to explore the dynamics of transition empirically in contextually specific ways rather than depict them in generic terms that could, over time, create the misleading impression that there is a particular transition pathway that is relevant for all contexts. We remain open to the possibility of an appropriate general theory of transition to what we have conceptualised in Chapter 3 as a sustainable long-term development cycle. As we show in Chapters 3 and 4, this needs to build on a synthesis of the work of the Dutch school, the Vienna school centred around the work of Marina Fischer-Kowalski and colleagues, the work on technological change by Perez (Perez 2002) and the development challenges addressed by the work of Peter Evans, Gilberto Gallopin and Charles Gore (Evans 2010; Gallopin 2003; Gore 2010). Indeed, when African realities are factored into the equation, what may be required is not merely a 'general theory of transition', but rather a 'general theory of transition and collapse'. Whereas the European discussion is largely about *low-carbon transition* as an alternative to preserving the status quo, in many other parts of the world that are exploited for their resources the alternative to transition may well be collapse. Although European writers on transition have paid far more attention to governance and the role of the state than their North American colleagues,³ both make no significant references to contexts in which states are incapable, for various institutional and political reasons, of intervening effectively to stop what Gallopin calls 'maldevelopment' (Gallopin 2003), to say nothing of the complex challenges of a transition to more sustainable modes of development. Indeed, history is replete with examples of societies that failed to make a transition and eventually collapsed (Diamond 2005). This is why this book includes a chapter on resource wars with Sudan as a case study (Chapter 7).

The logic of this book

Inspired by our experience in building the Sustainability Institute within the Lynedoch EcoVillage, this book addresses what we regard as the five key transitions that will in one way or another intersect and shape the next half century. As discussed in more detail later, these are what we have called the *epochal, industrial, urban, agro-ecological* and *cultural* transitions. We suggest that if we want the *next long-term development cycle* to be *sustainable*, we need to pay attention to the rapid and seemingly disconnected transitions taking place at these different spatial and temporal scales. This will help us to understand how best to promote a more *just transition*.

The book is divided into three parts. In Part I we address in three chapters the broad general conceptual themes of the book, namely the need to break from reductionism (Chapter 1), what is so unsustainable about the world today (Chapter 2), and how we can begin to understand the dynamics of transition (Chapter 3). In Part II we argue for

³ Contrast, for example, the work by Clark *et al.* (Clark *et al.* 2005) and the work by Smith *et al.* (Smith *et al.* 2005).

a rethinking of development with special reference to the greening of the developmental state (Chapter 4), the key role that cities could play in the transition to a more sustainable largely urbanised world (Chapter 5), and the neglect of soils in the global discussions about the potential of sustainable agriculture to feed the world (Chapter 6). Part III comprises a set of case studies drawn from the African context, namely the nexus between failed states and resource conflicts with special reference to the case of Sudan (Chapter 7), the challenge of transcending resource and energy intensive growth paths in modernising developing countries using South Africa as a case study (Chapter 8), and finally an exploration of what sustainability and liveability means in a rapidly urbanising world by way of case studies of Cape Town (Chapter 9) and the building of the Lynedoch EcoVillage (Chapter 10).

We lay out below brief summaries of the logic of each chapter that substantiate our core argument that a *just transition* must be a transition that reconciles sustainable use of natural resources with a pervasive and meaningful commitment to *sufficiency*. A just transition to a more sustainable long-term development cycle is what this book is about.

Part I: Complexity, Sustainability and Transition

Chapter 1 argues that sustainability is a challenge that is difficult to comprehend through disciplinary lenses. Towards the end of his magisterial account of biological and cultural history entitled *Human Natures: Genes, Cultures and the Human Prospect*, renowned Stanford University biologist, Paul Ehrlich, prophetically concluded that a sustainable and more just future will depend on whether the human species can develop the capability for 'conscious evolution' (Ehrlich 2002). This call for cultural transformation to inspire the need for a more sustainable world has since been echoed many times over (for particularly influential publications see Capra 1996; Hawken 2007; Kauffman 2008; Korten 2006; Okri 1999). We concur with Kauffman that unless we break from the 'injuries of reductionism', we will never discover the contextually specific cultural sensibilities for living out the 'fullness of human life' (Kauffman 2008: 7).

We argue that the significance of complexity theory lies in the fact that it shows how to make this break from reductionism. Whether it goes far enough when it comes to imagining an alternative world is explored.

Chapter 2 provides a summary of well-known mainstream documents that, when read together, provide an understanding of what is so unsustainable about the world. However, we concur with the contributors to *What Next?* that an *unjust* transition is a distinct possibility (Dag Hammarskjöld Foundation 2007). We discuss this possibility with respect to the widely held notion of *ecological modernisation* (Korhonen 2008). For us, ecological modernisation and an unjust transition may well mean the same thing in certain contexts—the greening of existing modes of consumption and production without addressing the challenge of (global) inequality. There is mounting evidence that an unjust transition would involve massive private sector investments to build low-carbon, resource-efficient economies with reduced environmental impacts, while leaving intact existing inequalities. Public sector subsidies to reduce the risk of these investments

would be justified using the compelling logics of climate science and, to some extent, environmental conservation. A divided, poverty-stricken, conflictual and socially unsustainable *low carbon* world would then be the outcome of an unjust transition.

Chapter 3 addresses the nexus between the epochal and industrial transitions in order to conceptualise possible ways in which the next long-term development cycle will unfold. We are convinced that there is much to be learnt from previous epochal transitions, in particular the transition that began some 13,000 years ago with the birth of agricultural systems in the Fertile Crescent, and the (partially completed) transition from the agricultural to the industrial epoch that started over 250 years ago. As we hit the limits of the resource requirements of the industrial epoch (discussed in Chapter 2), so we witness global discussions that explore the modalities and temporalities of the next epochal transition, namely the transition from an 'industrial' to a 'sustainable' socioecological regime and what this means for developed and developing countries. The rapid rise since 2009 of the notion of a 'green economy' within the UN system captures this dawning realisation, albeit in ways that could potentially undermine a just transition. As argued in this chapter, the contemporary economic crisis (which began in 2007) marks the mid-point of the digital transition (the fifth industrial transition). What is significant, though, is that this particular crisis dovetails with the wider epochal crisis of the industrial era as a whole. Thus there is sufficient evidence that we may be experiencing an unevenly developed dual transition at the *epochal* and *industrial* levels which could constitute the basis for what we have called a *sustainable long-term development cycle*.

Part II: Rethinking Development

In Chapter 4 we argue that we need to rethink the developmental state in light of the transition to the next *long-term development cycle*, no matter how more or less sustainable this will be. The classical conceptions of the developmental state were formulated to make sense of the role that states played in the modernisation processes that resulted in the transition from agrarian to industrial economies. This became the prime focus of development economics. We foresee an interventionist role for states, but now with respect to both developmental and ecological challenges. For this to be possible we argue that it will be necessary to synthesise development economics and ecological economic theory in order to conceptualise a developmental state that can foster sustainability-oriented innovations. This means going beyond the traditional socio-economic boundaries of mainstream Keynesian and Marxist economics.

Chapter 5 argues that the epochal, industrial and developmental trends take place within a rapidly changing spatial context that is most clearly marked by two simple but overwhelming facts: some time in mid-2007 there were, for the first time ever, more people living in cities than outside cities, and over the next four decades as the global population grows from 7 to 9 billion people (or more) another 3 billion will land up in African and Asian cities. As explored in Chapter 5, the city becomes the key locus for making sense of the epochal and industrial transitions that are transforming all cities in profoundly different ways. To prepare cities for the next

long-term development cycle, we need new methodologies to understand the metabolisms of cities, with special reference to the networked urban infrastructures that conduct the flow of resources upon which (nearly) all city dwellers are dependent. We review the history of urbanism, tracing the evolution of inclusive urbanism, splintered urbanism, green urbanism, slum urbanism and end up proposing a radical developmental alternative that we call 'liveable urbanism'.

Chapter 6 addresses the challenge of sustainable agricultural development by arguing that insufficient attention is paid to the problem of degraded soils. Without food, we perish. Without biologically healthy eco-systems such as soils, stable climates, sufficient water and viable nutrient cycles, there will be no food. Yet few city dwellers realise how vulnerable their food supplies really are as they seldom think about these degrading and collapsing eco-systems, often located thousands of miles away. As discussed in this chapter, there is an agro-ecological transition underway that is one response to a very particular, but often misunderstood, crisis that threatens the conditions for global food security. At the centre of this transition is the much-neglected subject of our soils. Even in some of the most advanced assessments of agricultural science and practice, soils are neglected. In almost every rural development strategy in the world, soils are forgotten. We argue that as long as we take soils for granted, the chances of finding ways of feeding the world sustainably will remain very small indeed.

Part III: From Resource Wars to Sustainable Living

To counter the spectre of an unjust transition, Chapter 7 addresses the vexed issue of resource wars, focusing in particular on Sudan. Sudan tops two of the most depressing lists in the world: the list of 'failed states' and the list of 'resource wars'. For us it is a tragedy that provides everyone with an insight into what could happen if we have an *unjust transition*. Sudan is a resource war and failed state because it has resources that others want and elites prepared to fight over the spoils. A world with many countries destroyed by resource wars is a distinct possibility if the billion over-consumers that live out urbane, sophisticated lives continue to assume that everything will be all right if minor adjustments are made, such as fitting solar panels and eating organic food. These are important for individuals, but insignificant in the greater scheme of things. A just transition will have to be far more fundamental and globally relevant, especially as we hit global resource limits. Similarly, the business elites and governments in resource-rich countries in Africa (including South Africa) who sell off the natural capital of their countries in return for personal enrichment must realise that they are just as guilty of creating a world of endemic resource wars for their children.

Using South Africa as a case study, Chapter 8 addresses the challenge that faces many resource-rich countries that have relatively capable states which are committed to rapid industrial modernisation. We question how long South Africa's image as an African success story will last because its growth model is based on elite consumption and extreme levels of resource exploitation. As the country hits many resource limits, it will have to manage a transition to a more sustainable and equitable economy, which

will come up against a powerful set of vested interests in the mineral and energy sectors. We use South Africa as a case study of a developing economy which cannot assume that it is possible to develop first to eradicate poverty, followed by an environmental clean-up later. This development paradigm is intellectually bankrupt. South Africa is a robust democracy which has a Constitution that obliges the state to eradicate poverty and racism in a way that is 'ecologically sustainable' (Section 24(b) of the Constitution). Until recently very little attention was paid to this mandate. However, as the economic consequences of dependence on resource- and energy-intensive growth become apparent, South African debates about building a 'green economy' may be instructive for other fast-growing developing countries. We critically examine these claims.

With linkages back to themes addressed in Chapters 4, 7 and 8, in Chapter 9 we use Cape Town to demonstrate what it means to dissect and reassemble the flows and networks of a city. Our conclusion is that the transition to a more sustainable long-term development cycle may well depend on the way in which cities take the initiative to figure out what this means in practice. Our argument is that urban infrastructures sit at the nexus between the spatial reconfiguration of resource flows through cities and macroeconomic expenditures aimed at countering the global recession. How these are aligned will determine the future of urbanism.

Instead of adding our voice to the cacophony of calls for global mindshifts and/or grassroots action (Hawken 2007), in Chapter 10 we explore our own 10-year experience of building a community called the Lynedoch EcoVillage, which aspires to more sustainable living. We have reflected here on what has emerged from our experience. Drawing on theories of adaptive leadership and ecological design, we suggest that it is no longer good enough to merely minimise environmental damage (which is what green urbanism is largely about). For us, liveable urbanism is about restoration of eco-systems and resources. We concur with Hawken when he praises the 'infinite game, the endless expression of generosity on behalf of all' (Hawken 2007: 187). Chapters 1 and 10 are, appropriately, the 'book-ends' of this volume: we start by making the case for a break from reductionism, and we end with an exploration of living and learning a generous and restorative life.

Values

Taking a lead from Hawken's conclusion about what motivates activists who contribute in their localised ways to epochal transition (Hawken 2007), we believe that there are two ancient values that have re-emerged at the heart of this new movement of conscious evolution:

- 1. 'I am because we are,' or more specifically, never let happen to anyone else what you would not have happen to yourself
- 2. 'All life is precious', thus all action must be judged by whether it restores or destroys the greater web of life.

⁴ There is a subtle but important distinction between this notion and a variant that is expressed as 'I am because you are'—this latter notion, which is sometimes used to define what is meant by the African concept of ubuntu, is still rooted in an individualist sensibility.

These values reflect what this book is about: generosity and restoration. The first implies an ethics of sufficiency and cooperation which undercut the capitalist values of individualism and crass materialism that are of little use when it comes to considering alternatives to the polycrises we now face.

'All life is precious' is a value which questions the anthropocentric perspective that reduces nature to a set of resources and eco-system services that humans can use as they want. We recognise, though, that for the sake of analysis and to engage the prevailing literature, we have used this anthropocentric language in this book. Nevertheless, our inspiration stems from much of the deep ecology literature which advocates that, ultimately, sustainability will depend on the diverse ways humans have available to them to reconnect with the various dimensions of nature (Harding 2006). We explore this idea towards the end of the book, when we suggest that sustainability will not result from doing less damage over time, but rather by finding ways of living that restore the eco-systems upon which we depend.

To conclude, we reiterate the core argument of this book. We argue that various transitions are already underway in response to resource depletion and negative environmental impacts. Unlike previous global economic crises, economic recovery will not be able to depend on cheap resources extracted from some outlying region, nor will prices be lowered by applying new technologies that will somehow magically deliver ways of transcending geophysical and biological limits. Something fundamental must change in the way in which economies relate to their environments. These transitional dynamics, however, are taking place in a world characterised by population growth, severe inequalities and rapid urbanisation. The challenge is to ensure that these transitions are *just* transitions. Although the world's poor are most affected by resource depletion and negative environmental impacts, it is possible to envisage investments and interventions that result in a more sustainable use of resources and reduced impacts, without fundamentally altering the balance of power and distribution of resources between richer and poorer sectors of global society. A just transition, by contrast, will regard the innovations, investments and interventions required to address resource depletion and impacts as unique opportunities to simultaneously address the wide range of fundamental needs of everyone, but in particular the world's poor — most of whom are concentrated in the global South. These kinds of just transitions can, of course, occur across many contexts, from the smallest eco-village right up to the nation-state and the global stage. The emergence of new indicators, such as the 'extended Human Development Index' proposed in the 2010 Human Development Report and the idea of a Happiness Index proposed by Nobel Prize winners Amartya Sen and Joseph Stiglitz (Stiglitz et al. 2009), suggests that ways may indeed emerge to validate qualitative rather than quantitative measurements of progress. We need more of this kind of thinking, and many more experiments across diverse scales which demonstrate in practice that a just transition is both desirable and feasible.

We conclude by paraphrasing Mahatma Gandhi who once said that there is enough in the world to provide for what we need, but not enough to satisfy our greed. For us, generosity and restoration are the inseparable values that seem to be foundation stones for the messy, unevenly developed epochal transition to a more just and ecologically sustainable *long-term development cycle*. But this transition is by no means inevitable. Indeed, resisting this transition in some of the richer parts of the world may well entail collapses in other poorer parts of the world, especially if there are muchwanted concentrations of primary resources in these regions. The complex trajectories, convergences and disjunctures of the epochal and related transitions underway at the industrial, agro-ecological, urban and cultural levels need to be understood by those who share our commitment to this sustainable future if they want to figure out how best to make it happen. We hope this book assists in this endeavour.

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Just Transitions: Explorations of Sustainability in an Unfair World

Mark Swilling and Eve Annecke

Current economic growth strategies around the world are rapidly depleting the natural resources and eco-system services that we depend on. *Just Transitions* gives a comprehensive overview of these global challenges from a global South perspective. How do developing countries eradicate poverty via economic development, while at the same time encountering the consequences of global warming and dwindling levels of cheap oil, productive soils, metals, clean water supplies and forest products? How do they address widening inequalities in income as well as the need to rebuild eco-system services and natural resources?

This book considers the theme of a just transition, which reconciles the sustainable use of natural resources with a pervasive commitment to sufficiency (where over-consumers are satisfied with less so that under-consumers can secure enough). It explores the perplexing logics of a range of different literatures and synthesises them to illuminate new ways of thinking from a sustainability perspective. It rethinks development with special reference to the greening of the developmental state, explores the key role that cities could play in the transition to a more sustainably urbanized world, and highlights the neglect of soils in the global discussions around the potential of sustainable agriculture to feed the world. Case studies drawn from the African continent detail the challenges, but they are set in the context of global trends. The authors conclude with their experience of building a community that aspires to live sustainably.

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