



Deeper City

collective intelligence and the pathways from smart to wise

CHAPTER 1: PROLOGUE



***Scene:** every day I cycle past The Ark, a cluster of muddy tents and smoking fires, a camp of homeless people under a flyover in central Manchester. Some are upbeat through the wind and rain, but many show the scars of abandonment and abuse – ‘much of the glue that has held British society together ... has been deliberately removed and replaced with a harsh and uncaring ethos.’¹ As I write, the authorities and landowners, keen for Manchester to attract global investors, are preparing another ‘re-eviction’...*

This book starts with the Arks, large or small, wherever they are found. Some ideas came from community groups around 1990, in beat-up post-industrial places across the north of England. The notion of a ‘Community Development Charter’ took shape as a way to avoid conflict and build collaboration. With help from institutes, consultants, activists and universities, we began to figure out how to draw simple maps of complex conflicts and look for potential synergies in the regeneration game. But with a financial crisis the wind changed, and shortly after the focus shifted to a new ‘S’-word – ‘sustainability’...

A decade later, we looked for ways to transform whole cities, and their supply chains of energy and water and materials. But all over Europe, the same syndrome came up

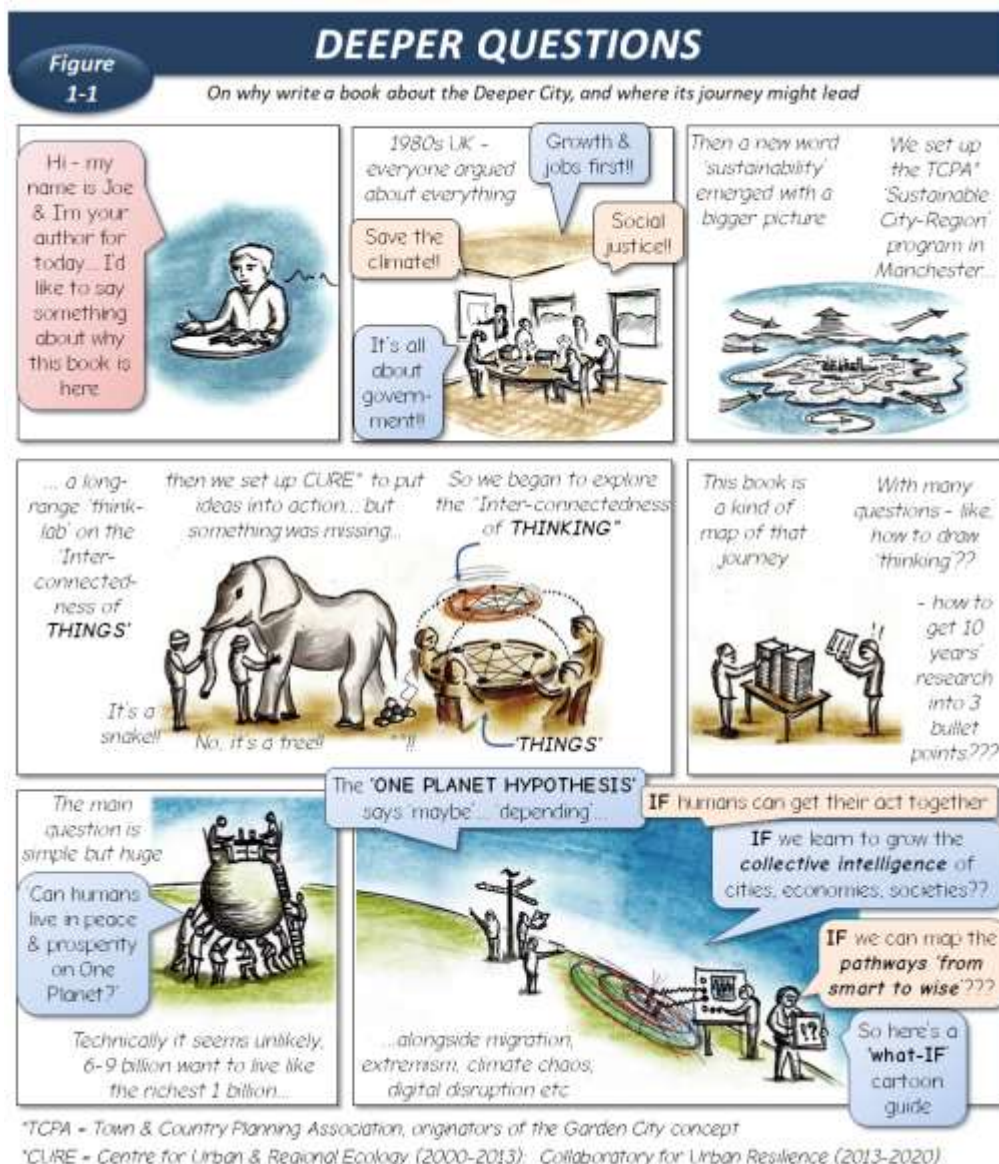
– technology, producers, consumers, designers, government, education or infrastructure, were all divided, conflicted or lost in translation. Again we tried to figure out ‘mappings’ on flipcharts and whiteboards, crude and simple, but enough to see the power games, find missing links, sketch new business models. An even bigger crisis in 2008 stopped the program along with many others, and the tide turned towards short-term survival.

A decade later, we were trying to connect the ‘outer political’ with the ‘inner personal’, amidst turbulence and unravelling. In the UK, Hungary, USA, India, Philippines, Brazil and many other countries, ‘the people’ seemed to be voting for extremism, intolerance and self-harm. This was a massive challenge to a world already on the threshold – climate change, technology disruption and debt crisis, to name a few existential threats – and a great opportunity for demagogues and plutocrats. It was also an opportunity for learning how to draw maps or mappings, of deeper human values and societal orders, especially those beyond the ‘expert’ rational view of things – and with maps or mappings, maybe, we could better navigate the storms ahead.

Gradually the ideas in this book began to crystallize, on countless clipboards and whiteboards and power-points. (I got a lot of practice drawing ellipses, good for sketches of round tables and the layers of a *Deeper City*). There were many false starts, side turnings and attempts at funding half-formed ideas which didn’t fit into standard boxes. There were many more inspirational moments, with many collaborators in many countries, mapping and designing many pathways for the future.

Facing forward, we see extremely ‘interesting times’ of great peril and promise. In technical terms it seems unlikely that catastrophic damage to our life-support systems can be avoided – we are not only deep into climate change, toxic overload and mass extinction, but also in various stages of denial, outrage, grief and blame. So just to survive the coming storms, it’s clear that new ways of thinking are needed. But this calls for more than rational ‘know-what’ thinking (as the cartoon characters are here to point out), it’s about *deeper* layers of ‘know-how, know-who and know-why’.

So, this book is a journey, a quest, a thought experiment, on the possibility of human co-evolution. It’s about ‘*mapping*’ the landscape, ‘*designing*’ the pathways (here are 40 examples to get started), ‘*navigating*’ the storms and ‘*growing*’ the seeds of collaboration. It’s even more about ‘*healing*’ the traumas of the past, ‘*gardening*’ on a small planet, or ‘*delving*’ into deeper myths. Moreover, it’s about ‘*collaboration*’ on complex systems, and ‘*learning*’ how on earth 7–10 billion people can live together. With all that maybe we could design better pathways ‘from smart to wise’, for this troubled and turbulent 21st century?



1-1 What's the big idea? Deeper questions

So with that on the table, welcome, and here's to put up some bigger ideas, with *deeper* questions, of why this book is here, how it works and who it's for.

Humanity has a problem. Our power for self-destruction, as with kids playing with loaded guns, seems far greater than our ability to manage it. Climate change, feral finance, invasive technology, hyper-urbanization, obscene inequality, rampant corruption, elite power grabs, or plain military conflict – these are all catastrophically open questions. To live with 7–10 billion people on one small planet in peace and prosperity, it seems we need a step change in the inter-connected brain, the *collective societal intelligence*, the collaborative 'know-how' and 'know-why'. This

calls for more than 'clever' production of obsolete stuff which goes to landfill. It calls for more than 'smart' cities which extract data for private profit. This calls for the human dimension – 'wise' (or at least 'wiser'), in all possible ways.

So, the whole book is basically a journey of discovery, in search of three *deeper* kinds of questions:

<list>

- a) What would this *collective intelligence* look like, in 'wiser' kinds of cities, economies, ecologies, technologies or political systems?
- b) Which pathways might lead towards it, and how to get them started?
- c) And most topical – how to combat the forces of aggressive and predatory power, money, corruption, inequality, paranoia, intolerance or self-destruction of many kinds?

<text>And for the difference between 'smart' and 'wise'? Maybe 'smart' is winning an argument with your partner – 'wise' is knowing when not to argue ...

Or another angle on 'wise', on that which makes us human, which shows up in the species name *homo sapiens*, literally meaning 'wise person' ...

Who is this book for?

The book is basically for people seeking and/or creating a sustainable future, from local to global – designers, inventors, policy-makers, researchers, entrepreneurs, artists, activists, or anyone who wants to be part of the way forward ... As for who are '**we**'? this means firstly the readers of this book. This version assumes some knowledge of sustainability, economics and politics: other versions (online) are geared for school-kids, activists, businesses or policy-makers. 'We' also means the 'multitude', the collective of human society. The text talks about 'we'... this is my personal way of conversation at large, to say 'we can explore', and so on. Also, the ideas here are not just from one author, but the combined effort of many teams, consortiums, partnerships, networks. And the bigger 'we' is actually the world, as we are all in this together.

Where is the book based?

For practical reasons the two main case studies are Manchester (shorthand for Greater Manchester and its wider city-region), and the UK (see **CITY-STATE-PLANET**, Fig.2-3). There are examples from around the world, and a review of six cities in **DEVELOPMENTAL-III** (Fig. 10-2), but a truly international view would be another project. Over-arching these is the third case study, the planetary level, a global *Collaboratorium* ('laboratory of collaboration') with humans on the inside, presented here as a hypothesis for the grandest of all challenges.

What can the book cover, or not? It can only sketch outlines for each of 40 Pathway Mappings – each one is a huge societal challenge, which deserves a book on its own.

(Disclosure: as a highly motivated observer in all of these, I might be classed as ‘expert’ in just a few of them). But there’s a reason to put all these sketches together, which is to explore the common threads and inter-connections between them. We use a stock example, the ‘Low-Carb City’, which shows how reality is highly inter-connected. To make progress on this Low-Carb City we have to somehow put together many layers – economics, politics, technology, land-use, communities and so on – it seems almost every one of the 40 pathways here is involved somehow. The question is who can put all this together and how?

Which words for what?

You will see many variations of the ‘co-’ word, the ‘syn-’ word and the ‘*deeper*’ word. Each shows a different angle on the same basic idea – learning, thinking, creating and working together, where the whole is greater than the parts. But there’s a challenge of terminology at the boundaries between sectors or fields, and for emerging ideas: for instance we don’t yet have a simple word for ‘*socio-eco-cultural-enterprise-platform*’, something which could be a vital key to our future prosperity. Meanwhile the ‘co’ word seems useful for emerging ideas on the collaboration frontier, for instance ‘co-governance’ or ‘co-formality’. And the word-play starts to spread into acronym-play, so we offer *MADDER* and *SADDER*, or *WISER* and *RISER*, to anyone who can use them (see the Abbreviations, Table 12-2).

This whole project started as *Urban 3.0*, and many dialogues happened under that banner.² But these words sound rather like a software upgrade, and ‘3.0’ is quickly overtaken by Manufacturing 4.0, Barcelona 5.0 and so on. Meanwhile the larger set of titles and keywords, and the logic behind them, went through countless variations, (see the complete list at Table 12-3).

What is the Deeper City?

Deeper City began to emerge from the idea of *deeper* layers of value, thinking and meaning. One layer of a city is about buildings and streets and wires, another layer is economic transactions, others are for communities or services or cultures. To make real progress we need to somehow connect these together. The ‘*deeper-city-mind*’ is the capacity of each part to make these connections. The ‘*collective urban intelligence*’ is the capacity of the overall system for collaborative (co-) learning, thinking and creating on all layers. (Some refer to *collective intelligence* with a more technical definition, as the knowledge of crowds enhanced by digital technology).

Most important, the ‘*City*’ means here a system of co-existence. The *City* is not only the physical thing, the grey areas on the map or the changing material face of the earth. It’s a shorthand for ways for humans to collaborate and build a civilization, where material roots are linked to universal aspirations. In reality, the *City* is also the site of displacement, alienation, exploitation and many other pathologies of co-existence.

Also this ‘*Deeper*’ heading seems helpful in framing the challenges ahead. Analysts can explore *deeper-complexity*, with multiple layers of rational/non-rational systems

of thinking and experience. Policy-makers look for *deeper-threat-multipliers*, where climate change amplifies political instability or economic collapse: or in response, the *deeper-synergy-multipliers*. Social philosophers explore *deeper meanings*, while local entrepreneurs explore the potential of a *Deeper Place*.³ While some talk of the 'deep state' as a political conspiracy, and others work on the digital 'Deep Mind', our concept of *deeper* includes these alongside other layers of human experience. All these *Deeper City* themes seem to revolve around 'synergies', meaning the positive relations which enable systems to work: so to understand or create these synergies, we need some knowledge of '*Synergistics*', meaning the art and science of working with synergies. Then, it seems these synergies don't just suddenly happen, they emerge by evolution, or rather '*co-evolution*'. This is shorthand for a '*conscious collaborative evolution*', not only as birds or fishes might evolve an ecosystem, but as humans might co-evolve a civilization. And the 40 '*Synergistic Pathways*' are explored here as likely or at least potential ways for this co-evolution to happen.

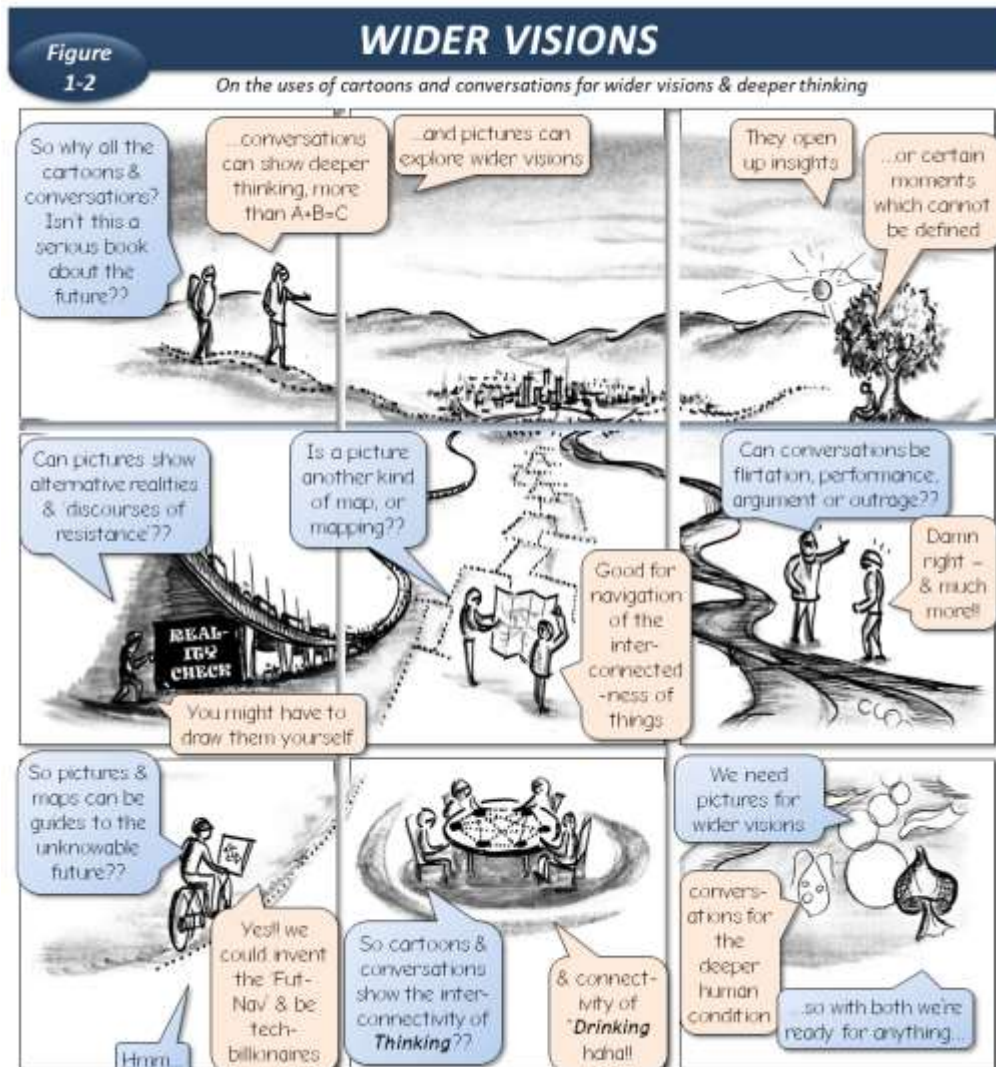
1-2 What's the big picture? Wider visions

Readers might notice cartoons and bits of conversations here and there, and wonder if this book is really serious. So yes, this book is about the future of local communities and global co-existence; an extremely serious question. But the pathways for this future aren't just technical items, they are about looking *deeper* and *wider* than our normal boundaries. They need to bridge between rational thinking and other forms of emotional or cultural or spiritual intelligence. And so it seems that pictures and conversations are a good way to start. Theatre, music, film, dance, cooking or sculpture are also good for synergistic thinking and creative experience: but pictures are easy to copy and print, and to create through dialogue. The pictures here are deliberately basic, with low-level technique, almost like cave drawings, to demonstrate that visual thinking is an essential tool and open to all.⁴

There are *deeper* levels of myths and archetypes to be uncovered through visual thinking. Some come up in the last picture in each of the main Chapters 4–8. Each culture already has its version of the pathways 'from smart to wise', telling stories to express the human condition of hopes and fears, challenge and insight, renewal and transformation.⁵ In 'Cities' (Chapter 4), the tower of Babel is endlessly built and destroyed and rebuilt. In 'Economies' (Chapter 5), the monster Leviathan sucks out all the gold from the world. In 'Ecologies' (Chapter 6), the original serpent sees the human fall and exile from innocence. In 'Technologies' (Chapter 7), the all-seeing *Nazgul* transforms into its counterpart, the raven of wisdom. And in 'Politics' (Chapter 8), the monster Chimera steers the Ship of Fools towards the rocks, with only the inner sense of wind and waves coming to the rescue.

As for conversations, these are well suited to debates and dialogues, not for simple answers, more for open-ended enquiry (following from Plato and many since). These are the *wider visions* of an extended community, far beyond the technical-rational elite, where people argue, imagine, conspire, speculate and criticize, building up a *deeper-wider* kind of reality. There is also confrontation and conflict, not only

material but of logic and value: the image here is about the squatters under the flyover, a recurring theme in cities both poor and rich. Ultimately this theme flies off on a tangent with the storyline in Chapter 11, raising open questions on open challenges.



And for the 'wiring diagrams' and systems mappings, there are many calls to 'rewire the economy', 'road-map the future' or design a new 'operating system' for society. 'Rewiring' suggests that fixing an economy or society is as simple as fixing a car, which it isn't ... but a diagram is one place to start, and other kinds of visual thinking and mapping could take it further. After all, a map is better for finding your way around a city than pages of text. And in the digital age, city mapping isn't just a symbolic pattern on paper, it can be an interactive real-time knowledge system. Following that logic, a *Deeper City Pathway Mapping* is no longer just an object of 'knowledge', it's a learning and thinking portfolio, a source for visions, potentials, ideas and actions. A *wiser* digital system of the future might simulate a pathway as an app-platform-hub. But until then, each Pathway Mapping page here aims at bridging between right and left brain thinking (and my personal instinct is, 'when the going gets tough, the tough get drawing').

1-3 What's a Deeper City? Concepts and FAQs

Here are the basic ideas and frequently asked questions, with a cartoon user's guide below, in **CONCEPTS & FAQs** (Fig. 1-3). Cities (shorthand here for civilizations) have many layers – social, technology, economics, environment, political – with many 'synergies' or inter-connections between them, positive and negative. To reduce the negative (syndromes), and realize the positive potential (synergies), we explore the present and the future, with 'synergistic mapping and design'.

How to look for synergies

Basically, we explore for possible synergies, beyond the normal horizons, in three key dimensions of any system:

- **Deeper:** synergies between different domains and value systems (social, technical, economic, environmental etc).
- **Wider:** synergies between 'actors' (people, organizations, networks, communities, institutions).
- **Further:** synergies between the 'factors' or metabolic flows (from upstream causes to downstream effects).

What is smart or wise?

To understand all these inter-connections is beyond any one person or field of knowledge – we need a collaborative learning and thinking, and some kind of *collective intelligence* to put it all together. This emerges from system transformation, not only in material systems but in cognitive-conscious systems, as seen in three distinct *Modes* of organization:

- **Mode-I:** functional growth/change, in a '**clever**' system: the 'city as machine'. (Where to put 5000 houses is a *Mode-I* kind of problem).
- **Mode-II:** biological **evolution**, with '**smart**' systems: the 'city as jungle'. (How to build houses with more profit is a *Mode-II* problem of innovation and competition, and '**smart**' systems for winners often lead to 'unsmart' results for the losers).
- **Mode-III:** human **co-evolution**, through '**wise**' systems: the 'city as civilization'. (How to foster a liveable community is a *Mode-III* kind of problem).

What's a synergistic pathway?

If we know where and how to travel, we could use a 'route-map', but if goals are fuzzy and routes are uncertain, we need **pathways**. A pathway here is based on synergies between two or more domains (social, technical, economic etc), which can

bypass or bridge present-day gaps and barriers. For transformation from ‘problems’ or syndromes (generally from clever or smart systems), to ‘responses’ and synergies (generally wise or wiser systems), we look for **‘synergistic pathways from smart to wise’**. These are ways of learning and thinking and creating which use *collective intelligence* to connect present problems with future opportunities. We design such processes of connection with **pathway mappings**, with the help of cartoons and diagrams. These mappings are generated through a four-stage *circular* process (with the shorthand ‘4-S’):

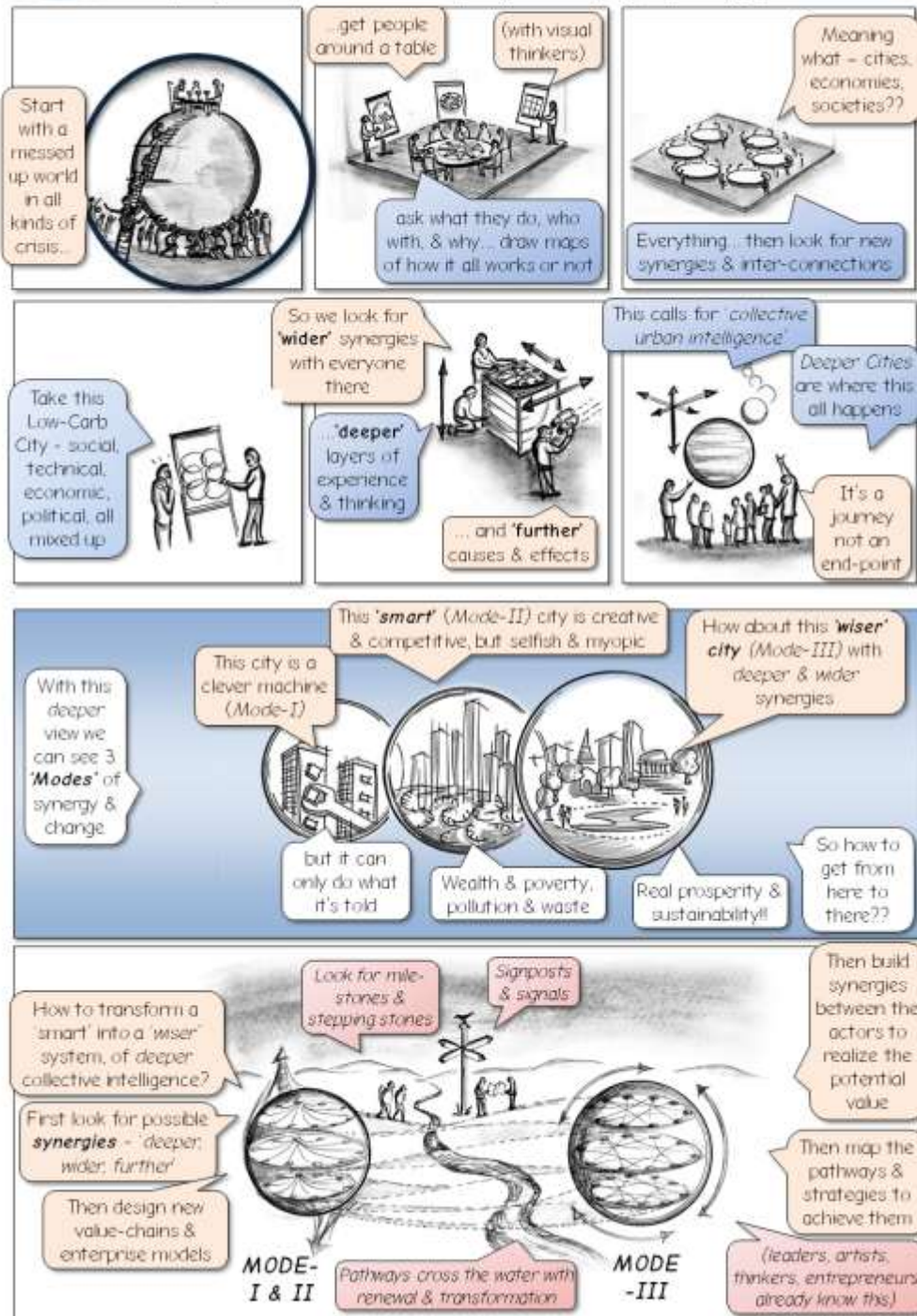
- **System-mapping (baselines)**: the existing system and problems on the table (with a process stage of ‘co-learning’);
- **Scenario-mapping (changes)**: the dynamics of change and alternative futures (the ‘co-knowing’ stage);
- **Synergy-mapping (visions)**: opportunities, innovations, transformations (the ‘co-creation’ or ‘co-design’ stage);
- **Strategy-mapping (pathways)**: route-maps, policies and projects (the final stage of ‘co-production’).

These ‘structures of thinking’ – the *deeper-wider-further* scope, the different *Modes* of collective intelligence and the 4-S process model – are all combined in a practical Toolkit (Chapter 3). Each of the 40 pathways in this book have emerged through and alongside the Toolkit itself. For others to use the Toolkit in the world out there, see the guidance in Chapter 10 on the *Collaboratorium* (‘laboratory of collaboration’) and the *Multi-versity* (a community where everyone learns with, by and from everyone).

Figure
1-3

CONCEPTS & FAQs

Frequently Asked Questions on the Deeper City and the synergistic pathways from smart to wise



1-4) Where to start? Book-in-use

The book aims to weave deeper concepts and questions, with wider visuals and narratives. This Prologue sketches the big questions, the ‘big picture’ of visual thinking, and some first FAQs (frequently asked questions). Following that, Chapter 2 is about ‘*Prospects*’ with some hindsight and foresight. Chapter 3 sets out the *Toolkits* for the synergistic method and the Pathway Mappings. Chapters 4, 5, 6, 7, 8, each explore the five main domains – *Cities, Economies, Ecologies, Technologies* and *Politics* – and, in each, the 40 pathways ‘from smart to wise’. Chapter 9 looks at the further ‘*Insights*’ on intelligence, resilience, evaluation and foresight. Chapter 10 looks at ‘*Local-Global*’, from the personal to the political, and sketches the uses and user pathways going forwards. This is all visualized at the upper part **(a)** of **BOOK-IN-USE** (Fig.1-4).

Finally, for a fresh angle, the storyline of Chapter 11 jumps into a near future of ‘*Mind-Games*’, where the ideas in this book are have become reality. In the *Mind-Game* workshop, five chapters are taken up into five stories, each told by their players, and each playing a different game (named after ‘Monopoly’): *Civil-opoly, Econ-opoly, Planet-opoly, Techno-poly* and *Polito-poly*. The object of each game is simple – to turn competition into collaboration. And while the players question and argue, *deeper* and *wider* possibilities begin to emerge, but not in the way we expected ...

Pathway Mapping pages

You will see that each section of each chapter has a full page (like an old-style ‘plate’) of pictures and diagrams. The first page/plate in each chapter is a ‘*Landscape*’, which sets the scene, with a *Systems-Mapping* and *Scenarios-Mapping*. Then the following pages show the 40 Pathway Mappings. The titles are put in **BOLD-ITALIC-SMALL-CAPS**, and ending with a ‘*III*’ – e.g. ‘**HOUSING-III**’ or ‘**FOOD-III**’. The ‘*III*’ is shorthand for a *Mode-III* system, one based on collective intelligence. One single page on ‘**HOUSING-III**’ or ‘**FOOD-III**’ can’t answer all possible questions on the transformation of housing or food, but it can sketch some likely pathways for transformation, all to be followed up. Each title appears in many places through the book, which reflects the reality of many inter-connections: for instance a Low-Carb City is not only about carbon, it’s about economics, politics, culture, design and so on. This also comes up in the sections marked ‘*Overview-Review*’, which are signposts for the landscape of thinking on similar lines.

The subtitle of each chapter section is the same as its Pathway Mapping page and is seen in *italics*. In the e-book version these titles are hyper-linked for easy cross-referencing. There’s more detail on the Pathway Mappings in the online resource.

Each visual Pathway Mapping page shows variations on a structure (lower part **(b)** of **BOOK-IN-USE**). Each page has cartoons above and diagrams below, each to suit a different part of the brain. And each page is structured around transformation and co-evolution: on the left side are present-day problems and ‘*syndromes*’, generally *Mode-I* and *Mode-II* systems. On the right side, we see future opportunities and

'synergies', generally with a *Mode-III* collective intelligence. (In some mappings the *Modes-I, II* and *III* each appear in separate columns). Where space allows, a change mapping appears above and actual pathways below.

All these are works-in-progress, distilled from countless flipcharts on many projects on many themes in many countries. So, the book has an unofficial sub-sub-title – '*designing the future one flipchart at a time*'.

Each of the thematic Chapters 4–8 follows roughly the logic of the four-part '4-S' cycle. It starts with the overall landscape, with *systems-mapping* for the present day, and *scenario-mapping* for the future. Then it looks at each section in more detail, starting with the local, and working up from there, and focusing on the *synergy-mapping* for visions and opportunities, and *strategy-mapping* of likely pathways. Finally, each chapter comes back to a bigger picture, with a sketch of how the parts fit together, with the synergistic 'pathways from smart to wise'.

How to use the book

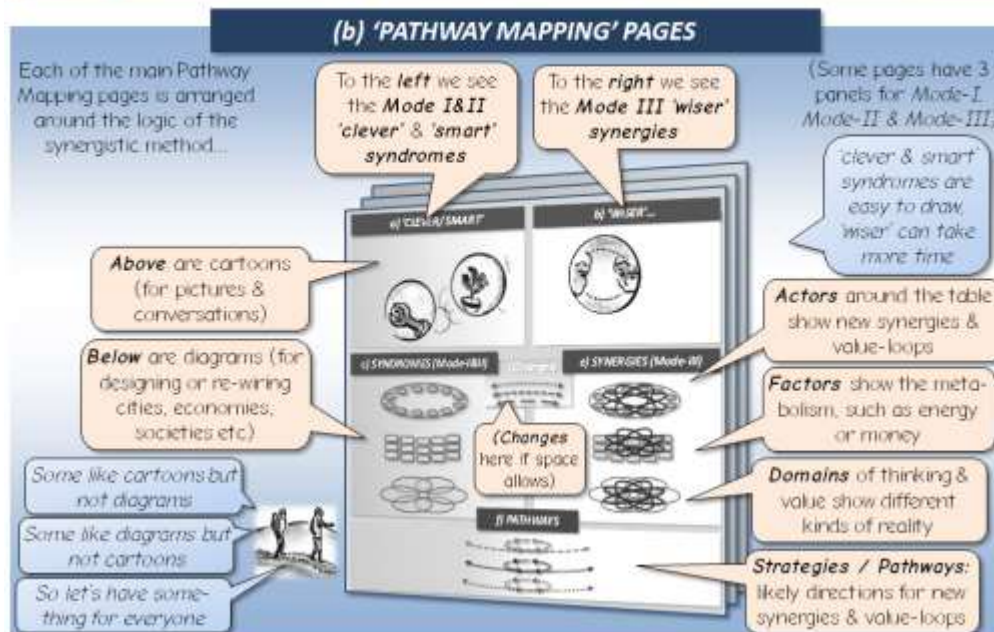
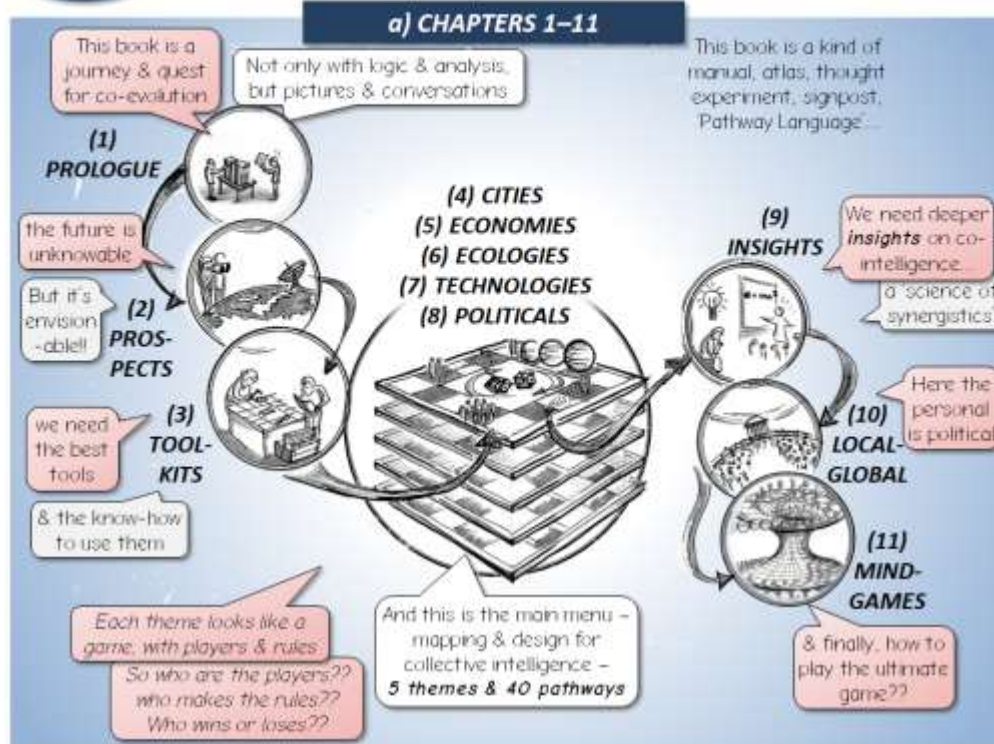
Readers can find uses for this B.O.O.K. (a '*Box of Organized Knowledge*', in the words of Anthony Burgess) in different ways:

- A desktop handbook for systems thinkers and designers (following the example of Alexander's 'Pattern Language', here's a kind of *Pathway Language*).⁶ If you have ever thought about the possibility of 'intelligent money', for instance, (or at least something a little less stupid), the pathway mappings at **FINANCE-III** (Fig.5-5) could have useful clues – no final answers or blueprints, but a practical guide with signposts and links to other parallel pathways, such as **LOCAL-ONOMICS-III** (Fig.5-2) or **E/VALUATION-III** (Fig.9-2).
- As a narrative or journey or 'atlas of the future', asking some very big questions – e.g. how would 'intelligent money' actually work, and how could it be achieved?
- As a source book and experiment in synergistic thinking – text, reviews, diagrams, cartoons and storylines, all part of an ongoing enquiry.

Figure
1-4

BOOK-IN-USE

On how the Deeper City book is constructed and how to use it



Further questions

Some might ask, is this whole project too utopian, with talk of collective intelligence? What about the darker side of power and inequality, crisis and conflict? The prospects seem darker and more ominous every day, and there are no easy answers. Clearly the ‘wiser’ **ECONOMIES-III** (Fig.5-7) or **POLITICALS-III** (Fig.8-7) are at great risk from ‘smarter’ predatory capital or aggressive power. In each case we sketch some possible responses – co-option, subversion, confrontation, or perhaps ‘*building a new system which makes the old one obsolete*’, as Buckminster Fuller put it. We don’t have to look far for dark and dystopian futures: ‘*Cities*’ (Chapter 4) looks at sprawl and segregation; ‘*Economies*’ (Chapter 5) goes for predatory and self-destructive finance. For ‘*Ecologies*’ (Chapter 6) it’s the doctrine of **MADDER** (‘*Mutually Assured Destruction and Depletion of Ecosystems and Resources*’). In ‘*Technologies*’ (Chapter 7), the existential challenge of artificial intelligence (AI), leads straight into ‘*Politics*’ (Chapter 8) with extreme inequality and **SADDER** (‘*Social-cultural Alienation and Disruption of Emotional Resilience*’) (see the Abbreviations in Table 12-2). Each of these is about transformation in the outer material world, which seems to work in parallel with that of the inner personal world. So this book finishes just where the next book is called for – proposals are welcome! – on ‘inner pathways’, for cultural, psychological, ethical and spiritual dimensions.

Second, you will see this book doesn’t have catchy anecdotes, or self-help checklists, or sound-bite statistics. It doesn’t put up the brave sustainability ‘good guys’ against the corporate populist ‘bad guys’ for a daily checklist of outrage. For Low-Carb cities and other themes, many other books cover the science, politics, economics, or the ten-point plans. Here the focus is on the inter-connections and the possibility of transformation from syndromes to synergies, via the pathways ‘from smart to wise’.

Third, these 40 Pathway Mappings don’t provide ‘the answer’. Everything here is in flux – finance, governance, technologies, lifestyles – way beyond any textbooks or manuals – and every sector in every city is different. So, this book doesn’t claim fixed truths or silver bullet solutions. Its methods were developed and tested in many places and many sectors, with a creative learning process in each. A shortlist includes (2016–2019): ‘smart-wise cities’ in India and UK, risk and resilience in Melbourne, low-carbon transition in Qatar, future of the labour movement in the EU, prospects for the European Research Area, transformation to ‘beyond cities’ in Finland, squatters’ livelihoods in Mexico, climate-proof peri-urban in 21 cities around the world, and in Manchester many themes in low-carbon, socio-ecosystems, circular economy, multi-level governance and community development.

Fourth, this book sets a challenge for ‘knowledge’, as explored in **SCIENCE-III**, (Fig.7-6) or **DEEPER-MIND-III** (Fig.9-1). What kind of research can work with cognitive or *deeper complexity* and inter-connectedness, and still be ‘robust science’? Meanwhile there’s a practical question of citations, of which many are attached to the ‘overview-review’ sections in each chapter – mini literature reviews with sources and signposts. At the moment most prime scientific literature sits in exclusive enclaves protected by paywalls (this is now changing fast). In practice, anyone can start with the citations here to search online, and in a few seconds they will find open access papers, Wikipedia pages or reviews, forums or blogs. The challenge is not so much in finding information, more about how to navigate and make sense of an informatic ocean.

Overall this book is a journey into the art of the possible, a quest for human co-evolution. It's a kind of *Collaboratorium* itself, or *Multi-versity*, an experimental zone for collaborative (co)-learning and co-creation. It aims to explore systematically beyond normal boundaries, '*deeper, wider, further*'. It points to a new kind of operating system of '*Mode-III*' *collective intelligence*. It proposes a post-post-capitalism, or a '*pre-co-opolism*', to coin a new term, for envisioning and debate.

Deeper City then raises the greatest challenge of all, a One Planet Hypothesis, on possible alternatives to human self-destruction and/or enslavement. It sketches and maps 40 synergistic pathways '*from smart to wise*', in cities, economies, ecologies, technologies and politics, from local to global. But this is hardly a beginning. There are countless and endless pathways to explore, in such very interesting times ...

Notes

¹ UN-HRC 2019

² Cohen 2012

³ Adamson and Lang 2014

⁴ Ravetz and Ravetz 2016

⁵ Sousanis 2015

⁶ Alexander et al 1977