



## Introduction

*We humans appear on the cosmic calendar so recently that our recorded history occupies only the last few seconds of the last minutes of December 31st. We are the legacy of 15 billion years of cosmic evolution. We have a choice: we can enhance life and come to know the universe that made us, or we can squander our 15-billion-year heritage in meaningless self-destruction.*

— Carl Sagan, *Cosmos*<sup>1</sup>

We live in extraordinary times. We all know this on some level, but typically take it for granted as we go about our daily lives. As a result, far too many of us continue to merely cycle through our status quo routines as our world careens ever closer to disaster. However, if we can embrace our global predicament as the opportunity for unprecedented transformation it is, it can act as a catalyst for us to unlock our full potential and leave behind a legacy we can be proud of.

According to the current scientific consensus, our universe emerged out of unfathomable mystery in the Big Bang 13.8 billion years ago. Dispersed particles gradually self-organized into atoms, which joined to make more complex molecules, which eventually coalesced into stars, planets, and galaxies. Earth itself formed approximately 4.5 billion years ago, and fossilized microbes have been found in hydrothermal ocean vents dating back 3.5 billion years, providing the earliest evidence of life.

In comparison, the emergence of *Homo sapiens* 300,000 years ago could be considered an extremely recent phenomenon. For 97 percent of

our history, humans have overwhelmingly lived in small, tight-knit communities, nomadically hunting and gathering in relative symbiosis with the Earth. It's only been within the last 10,000 years since the Agricultural Revolution that we've increasingly settled in towns and cities apart from nature, enclosed and divided up the commons, and developed complex hierarchies to control surplus resources and labor.

While this process of expansion based on the subjugation of nature and Indigenous peoples has continued ever since, what we think of as modern civilization really only dates back about 260 years to the beginning of the fossil-fueled Industrial Revolution. At that time, global population stood at 600 million. There were no cars, planes, trucks, buses, or trains; no telephones, radios, TVs, or computers; no supermarkets or big-box stores filled with cheap goods and produce from all over the world; no electricity, air conditioning, or curbside trash collection; no plastic bags or pharmaceuticals; no rock concerts, blockbuster movies, or professional sports; no health insurance, paid vacations, or retirement plans.

Despite our current way of life having only existed for less than 0.1% of human history, we tend to think it's normal and assume it will continue indefinitely because it's all we've ever known. However, exponential growth in human population, consumption of natural resources, and greenhouse gas emissions over the past two and a half centuries has already pushed our planet to its breaking point, ushering in what geologists have termed the

Figure 1.1. Evolutionary timeline of the universe, Earth, and humanity.

Event	Years Ago	Percentage of Cosmic Time
Birth of the Universe	13.8 billion	100%
Formation of Earth	4.5 billion	33%
Emergence of Life	3.5 billion	25%
Emergence of <i>Homo sapiens</i>	300,000	0.002%
Agricultural Revolution	10,000	0.00007%
Industrial Revolution	260	0.000002%

“Anthropocene” epoch, biologists have identified as a sixth mass extinction, and climatologists are warning is the greatest threat humanity has ever faced.

For the first time ever, our entire planet is endangered because of forces human beings have unleashed, and many of us have already begun to experience the consequences of this in our own lives. More frequent and devastating natural disasters, the Great Recession, and the coronavirus pandemic, widening inequality and rising authoritarianism, and increasing levels of mental illness are just a few of the many manifestations of this rapidly unfolding environmental, social, and economic polycrisis. As bad as the past couple of decades have been, they have likely only served a dress rehearsal for what is yet to come.

Unless we start making big changes now, things will get worse, but our politicians are tragically failing us and corporations have been allowed to continue their relentless pursuit of profit mostly unabated. Even the heroic efforts of professional activists and grassroots movements haven’t been nearly enough. In this context, it’s entirely understandable that many people who care about the state of our world and genuinely want to help bring forth a more just and regenerative future feel hopeless, overwhelmed, and confused about how and where to start. We all find ourselves caught between a way of life we know is rapidly coming to an end and a future that hasn’t fully taken shape yet.

However, it’s precisely this moment, when old systems and certainties are starting to break apart at record rates, that unprecedented opportunities for cultural and systemic transformation present themselves. When everything’s going reasonably well, it’s easier to simply float along with the mainstream, but we can no longer afford that luxury. Now is the time for all people of good conscience to lean into this challenge, step in off the sidelines, and begin to steer our own course.

The good news is we can start wherever we are and pick up whatever we need along the way. Because so many different things need to be done, everyone has an important role to play. We might choose to plant forests or grow food, serve as teachers or healers, run for office or block the path of a pipeline. What the specific thing is doesn’t matter much. What matters most is that we all do something.

If enough of us lean in and take action, I believe we still have a chance to bend the long arc of history towards justice.<sup>2</sup> We don't lack any knowledge or resources necessary. The only thing that's been missing is our collective will.

Of course, actually bringing about a Great Transition<sup>3</sup> won't be easy, and there's no guarantee we'll succeed. However, the journey itself is its own reward. It offers us a chance to discover our deepest purpose, claim our power as agents of regeneration, and build community with others who are trying to do the same.

After all, isn't this what we've always wanted? To be thrust into being a hero in an epic saga? To tap into an inexhaustible source of inspiration and dedicate ourselves to a noble pursuit? Are we really satisfied with lives of quiet desperation, busying ourselves with hollow entertainment, unfulfilling jobs, and superficial relationships? Don't we feel called to greater adventure?

## Evolutionary Change

These two words came to me more than a decade ago as a way to refer to an approach to life and activism that is uncommon but not unknown. Despite many attempts over the intervening years, I still haven't found a more succinct way to express this. From my perspective, the change we need to see in our world at this time is evolutionary in at least three ways.

- 1. We've arrived at an evolutionary "bifurcation point" as a species:** The ecological destruction modern civilization has spread to nearly every part of our planet is patently unsustainable. If everyone alive today consumed like the average American, we would need 5.1 Earths to support us,<sup>4</sup> and global warming is now expected to cross the 1.5°C threshold within the next five years,<sup>5</sup> potentially triggering dangerous tipping points. Clearly, we can't continue this way much longer. Whether we have 5 years or 50 years, we need to start making big changes now. Humanity has come to an existential fork in the road where we must either evolve or suffer the consequences.

2. **The level of change currently needed can be thought of as an “evolutionary leap”:** The status quo is no longer an option, and piecemeal reforms won’t cut it. We need change on the scale of our fishy ancestors crawling up onto land for the first time or plants developing photosynthesis to harvest the energy of the sun. We need to find a new way to live in harmony with the Earth that works for at least eight billion people. This will require a massive overhaul of all of the systems we currently depend on as well as a reassessment of some of our most closely held values and beliefs. Ultimately, we’ll need to become different people, not just consume different stuff.
  
3. **The approach I believe will be most effective is evolutionary in nature:** While we might dream of a sudden mass awakening or abrupt revolution that will instantly solve all our problems and set everything right, neither is likely to happen. Although it’s crucial that we make change as quickly as possible, if we try to force it without creating the necessary conditions first, we won’t succeed and will probably end up provoking counterproductive backlash. By working with reality as it is rather than how we want it to be, we might actually progress faster.

Rather than attempting to overpower natural processes, we would be wise to learn from them. Nature has much to teach us: not only the external nature of plants, animals, and ecosystems but also the internal nature of our most authentic being. Humans are not, as is commonly thought, a species apart. We are nature, human nature. We lean towards the light. We’re blown by the wind. We’re subject to the same laws of gravity, electromagnetism, and karma as everything else.

How a seed grows into a tree or a child develops into an adult stands in stark contrast to mechanistic conceptions of how life works. Evolutionary change is an organic process, more like a journey into the unknown than a formula we can rigidly follow. Over millennia, it’s been called by many different names in many different languages by priests and poets, scientists and evolutionaries. All point towards a common underlying reality: a perennial philosophy of change.

For nearly two and a half decades now, I've been a dedicated student of how change occurs, testing out many different theories in my own life and work. Based on these experiences, I can confidently say that evolutionary change isn't just a nice idea. It's an entirely different way of being in the world that has the power to change everything.

In these increasingly chaotic times, change is inevitable but evolution is not. We can choose to lean in and be transformed by it or sit around and wait for it to show up on our doorstep. If we decide to lean in, why not learn how to turn it to our advantage? If not us, who? If not now, when?

### Reclaiming Leadership

To bring about evolutionary change and planetary regeneration, I believe we need to reclaim the concept of leadership. While the leadership most people are familiar with tends to be individualistic and oppressive, there are other ways to engage in this essential practice that seek to support and empower rather than control and exploit. Instead of leadership being imposed by a few people perched atop a hierarchical pyramid, it can naturally bubble up from below and be broadly shared.

Fundamentally, leadership is power, which isn't inherently good or bad. It could be defined simply as our ability to influence our world. Power that's coercive is commonly referred to as "power over," while power that's shared is known as "power with." There's also "positional power," which is conferred by society, and "power within," which is innate. This book is all about developing our power within to expand our power with.

The time of the lone ranger-type hero is over. The challenges we face are far too big and urgent for any of us to hope to tackle them alone. Although somebody has to make the first move, individual leaders can be prone to egotism, myopia, and burnout. We need to cultivate diverse and resilient leaderful groups and movements to effectively unleash their collective genius.

Even in groups that claim to be leaderless, power dynamics are always present beneath the surface. If we choose to ignore them, they don't go away. We merely deprive ourselves of the opportunity to consciously shape them in accordance with our values.

However, if we can step into leadership in small ways to begin with and

learn how to work with others to change things for the better, our leadership can eventually ripple out to positively influence the groups we are part of, the communities where we live, and the larger systems that we are enmeshed in. By stepping into our power, one person has the potential to inspire countless others over the course of a lifetime, and each of them has the potential to do the same.

This is the power of grassroots regenerative leadership and the reason I believe it may be the most powerful leverage point we have to bring about a Great Transition. In place of the ruinous exponential growth that has underpinned modern civilization thus far, we could unleash a tidal wave of compassion, cooperation, and creativity.

Although this might seem far-fetched, it might also be the best chance we've got. Our political leaders are constrained by public opinion, deadlocked in conflict, or worse; corporate leaders are obligated to maximize shareholder profits above all else; and nonprofit leaders are chronically underfunded and overmatched. I believe it's up to ordinary people like you and me to tip the balance of power. If we can do that, everything else will follow.

I'm not going to lie: this kind of leadership isn't something we can just do in our spare time, after work and on the weekends, whenever we feel like it. We have to learn to embody it in every aspect of our lives. We need to be willing to let go, over and over again, of who we thought we were to grow into the people we know we're capable of becoming. This process can be painful, lonely, and confusing at times. It's also, in my experience, undoubtedly worth it.

### **Who This Book Is For**

*The Regeneration Handbook* has a lot to offer anyone who longs for a better world and wants to help make it a reality. Maybe you're feeling stuck in your life and are looking for a new perspective to shake things up, or maybe you want to get involved in making a meaningful difference but don't know how or where to start. Maybe you're already a committed activist, constantly searching out new insights. All of these are excellent reasons to read on.

Even if you don't know why you picked up this book, you might consider trusting your intuition. Sometimes, a lifelong journey unfolds from just

the tiniest seed. This might be a glimpse of a vision, a spark of inspiration, or a moment of curiosity that eventually blossoms into something much greater.

We all need guides on our path to point out potential pitfalls and speed us on our way, but we also need companions who can share this journey and strengthen our determination to never give up. As author of this book, I see my role partly as a guide but mostly as a companion, reminding you of what you already know and encouraging you to trust that.

As you will see, *The Regeneration Handbook* draws heavily on my involvement with the international Transition Towns Movement over the past 15 years. For this reason, those who consider themselves Transitioners will find this book to be of particular interest. However, even if you've never heard of Transition, there's still much to be learned from this movement. I believe it's one of the most effective and inspiring movements in our world today, and many of its principles, strategies, and solutions can be adapted and applied to any effort for environmental, economic, or social regeneration.

Although my background as a founder of a local Transition Initiative, coordinator for a statewide hub, executive director of a national hub, and international Transition Trainer makes me somewhat uniquely qualified to write about this movement, I want to be clear from the outset that my views do not necessarily reflect those of all Transitioners. Part of the beauty and brilliance of the Transition Movement has always been its insistence that there's no one right way to do Transition.

Rather than seeking to make a definitive statement about what Transition is or isn't, my hope is that *The Regeneration Handbook* sparks discussion and inspires others to share their thoughts, especially those whose voices haven't been part of this conversation so far. Because I'm inherently limited by my perspective as a university-educated, middle-aged, straight, white male who has lived most of his life in urban and suburban areas throughout the US, I would very much like to hear more from BIPOC Transition leaders, those who live in other countries and rural areas, women, LGBTQ+ folks, and youth. I believe we're still only in the early stages of figuring out how the Transition process actually works, and nobody has all the answers. Only by sharing our experiences and insights with each other will we develop the collective wisdom needed to fundamentally transform our world.



## What You'll Learn

While *The Regeneration Handbook* is rooted in my ongoing involvement with the Transition Movement, it draws from many other sources as well. It's been inspired and informed by the work of dozens of leading regenerative thinkers and doers spanning many different fields, including ecology and cosmology, psychology and sociology, organizational development and systems thinking, and activism and the arts. It also draws on my experiences as an anti-war and social justice activist, a wilderness instructor for at-risk and adjudicated youth, a devoted student and practitioner of Tibetan Buddhism, an organic farmer and Permaculture gardener, and someone who has lived in several different intentional communities.

You can think of this book as a kind of field guide for the evolutionary journey, surveying its inner, interpersonal, and collective dimensions while providing an abundance of tools, practices, and advice for every stage along the path. For this reason, I suggest reading it straight through at least once.

- **Chapter 2: Patterns of Evolution:** In the following chapter, I'll introduce you to four "meta-patterns" of Transformation, Expansion, Wholeness, and Balance. We'll examine their essential characteristics, how they appear in both nature and culture, and how they combine to form an integrated framework.
- **Chapter 3: My Evolutionary Journey:** Here, I offer my personal story as just one example of how evolutionary change can unfold over the course of a lifetime. Although my circumstances are far from universal, I believe my journey effectively demonstrates its power, its naturalness and humanity, and many of its key principles in action.
- **Chapters 4 and 5: Introducing Transition:** These two chapters shift focus from the individual to the collective, using the Transition Movement as a case study and model for evolutionary change in society. In "The Transition Story," we'll explore how this movement rapidly spread from its humble beginnings in 2005 and 2006 to more than 1,000 communities in over 50 countries worldwide. Then, in "The Five Stages of Transition," I'll expand on a theory of change from Transition Movement founder Rob

Hopkins' *Transition Companion* to show how local efforts can be scaled up and networked to bring about a tipping point for global regeneration.

- **Chapters 6 to 12: The Seven Essential Ingredients:** Each of these chapters focuses on one of the Seven Essential Ingredients of the Transition approach. Chapters on “Our Global Context” and “The Power of Vision” explore its philosophical underpinnings, while those on the “Inner Transition” and “Healthy Groups” address its individual and interpersonal dimensions. “Community Engagement” and “Practical Projects” detail the external activities of Transition Initiatives, while “Part of a Movement” reflects on how we might gain influence at national and international levels.
- **Chapter 13: Conclusion:** In this final chapter, I share some closing thoughts about why all of this really matters and how the forces of evolutionary change and regeneration might actually win out in the long run. I also offer suggestions for potential next steps and lead you through a personal action planning process.

While I've done my best to avoid speculation and only recommend what I've confirmed through my own experience, it's important to recognize the advice I offer may not be appropriate for you. Due to our different backgrounds, locations, preferences, and abilities, what's worked well for me might not for you. For this reason, I encourage you to question everything, reflect on your own experience, and judge for yourself what is and isn't likely to be helpful. Then, experiment with only that which seems most promising to you and see what happens.

The process of evolutionary change is truly never-ending. What may prove useful at one stage of your journey may not be at another. We always need to be iterating and fine-tuning our approach, repeatedly letting go of what's no longer working to create space for new strategies to take shape.

Eventually, we all need to become our own teachers, to travel out beyond the edges of all the maps that have been handed to us. From this perspective, this book can also be thought of as merely a jumping-off point for your own explorations. What you get out of it is ultimately up to you.



## Patterns of Evolution

*In an ordinary English sentence, each word has one meaning, and the sentence too has one simple meaning. In a poem, the meaning is far more dense. Each word carries several meanings, and the sentence as a whole carries an enormous density of interlocking meanings, which together illuminate the whole. The same is true for pattern languages. It is possible to make buildings by stringing together patterns, in a rather loose way. A building made like this is an assembly of patterns. It is not dense. It is not profound. But it is also possible to put patterns together in such a way that many many patterns overlap in the same physical space: the building is very dense; it has many meanings captured in a small space; and through this density, it becomes profound.*

— Christopher Alexander, et al., *A Pattern Language*<sup>1</sup>

Of all the courses I took as a graduate student in Environmental Leadership at Naropa University, my favorite was Transforming Systems. I was and continue to be fascinated by how living systems come together, break apart, reorganize, thrive, adapt, and evolve. Learning about esoteric concepts like autopoiesis, dissipative structures, and emergent properties still feels a bit like being initiated into the secret inner workings of the universe.<sup>2</sup>

To counteract the tendency of his students to become overly intoxicated by these ideas, our professor, Mark Wilding, wisely reminded us towards the beginning of almost every class that “The map is not the territory.” By



this, he meant that no concept, no matter how profound, can ever substitute for direct experience. Mark also frequently shared a corollary to this first axiom: “All models are wrong, but some are useful.”

Whenever a map or model proves beneficial across many different contexts, we might reasonably call it a “pattern.” This is the sense in which Christopher Alexander and his colleagues used this term in their 1977 book, *A Pattern Language: Towns, Buildings, Construction*. Over the course of 1,200 pages, they present 253 patterns related to the design of built environments, from organizing entire regions around the idea of “City Country Fingers” to the benefits of having a variety of “Different Chairs” in every room of a house. Taken all together and combined in various ways, these form what they called a “pattern language.”

While *The Regeneration Handbook* is much shorter and structured quite differently from Alexander and company’s massive tome, it can also be thought of as a kind of pattern language. Indeed, you’ll find numerous patterns scattered throughout its pages.

The purpose of this chapter is to introduce you to four “meta-patterns” of Transformation, Expansion, Wholeness, and Balance. My hope is that, by providing some basic grounding in them here, you’ll be able to identify other examples as they appear throughout the book.

Ultimately, our greatest power to affect change comes from weaving these four meta-patterns together. Because their logic often runs counter to conventional thinking, it’s natural to question them at first. However, I hope you will eventually come to experience them as I have: as part of a single dynamic process that pervades our universe, fractally, at all levels.

### **Patterns of Transformation**

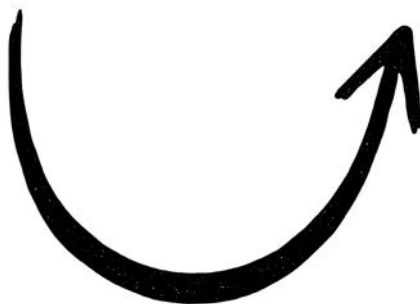
Patterns of Transformation are the beating heart of evolutionary change. We can see this meta-pattern at work in nature in the turning of the seasons as well as in cycles of life, death, and rebirth. While modern society tends to ignore and deny the inevitability of death in favor of fantasizing about immortality and eternal youth, this clearly isn’t how life works.

It’s a harsh truth, but we can’t be reborn without first going through a process of dying to our former selves, which can be extremely painful and disorienting. Nevertheless, this is the way life regenerates itself. Last sea-

son's crops need to be composted in the fall for the soil to burst forth in even greater abundance next spring. The caterpillar has to melt down into an unrecognizable goo before its "imaginal cells" can begin to resurrect it as a butterfly.

Because this dying process can be terrifying, it's important to remember that greater life always awaits us on the other side. In many traditional cultures, elders were available to guide young people through this treacherous passage. However, in our modern world, authentic elders can be difficult to find. Because most have not gone through the process of Transformation themselves, they're simply unable to help us.

While one might reasonably assume that Transformation looks like a line constantly angling upward or a circle that ends where it began, I've come to believe it's more accurately depicted as a U shape. Unlike a line, Transformation isn't straightforward, and unlike a circle, we don't end up in exactly the same place where we started. Instead, we are fundamentally changed in the process.



*Figure 2.1: The archetypal U shape of Transformation.*

This idea of Transformation as a U shape comes from Theory U, which was originally articulated by Peter Senge, Otto Scharmer, Joseph Jaworski, and Betty Sue Flowers in their 2005 book *Presence: An Exploration of Profound Change in People, Organizations, and Society*.<sup>3</sup> Their introduction explains how this pattern emerged from a series of interviews Scharmer and Jaworski conducted with more than 150 leading scientists and entrepreneurs about the nature of innovation. In one of these conversations, Brian Arthur, a prominent economist and Taoist practitioner, described his

creative process as consisting of three distinct phases: “Observe, observe, observe,” “Retreat and reflect,” and “Act swiftly, with a natural flow.”

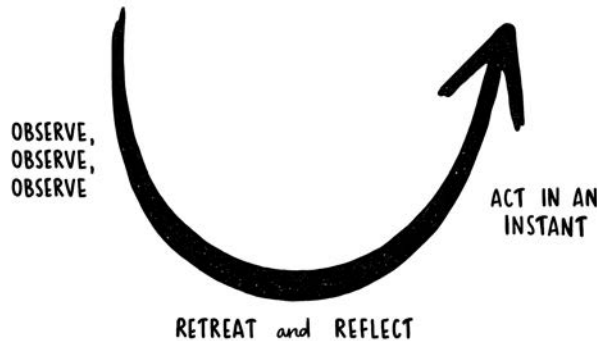


Figure 2.2: Brian Arthur's three-stage model.

In the years following the publication of *Presence*, Scharmer mapped out this basic model in greater detail, culminating in the release of *Theory U: Leading from the Future as It Emerges* in 2009.<sup>4</sup> During that time, he also became a senior lecturer at the Sloan School of Management at MIT and founded the Presencing Institute, which is described as “an action research platform at the intersection of science, consciousness, and profound social and organizational change.”

As it's currently understood, Theory U consists of seven distinct stages. By suspending our habitual reactions, we can stop mindlessly repeating the patterns of the past (Downloading), and begin Seeing and Sensing in a more direct and unfiltered way. This eventually produces an internal shift (Presencing) that enables us to move into progressively more effective action through Crystallizing, Prototyping, and Performing.

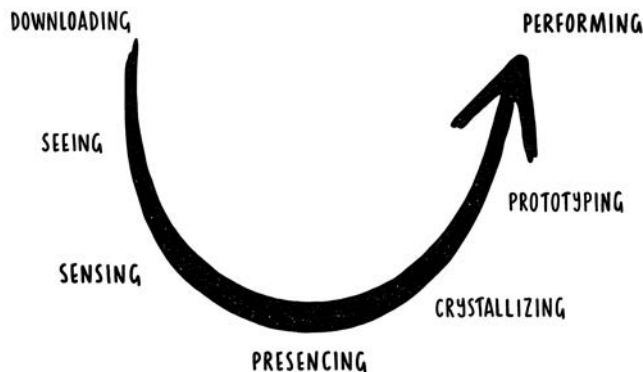


Figure 2.3: The seven stages of Theory U.

Although I find Theory U to be a particularly useful map of Transformation, there are many other models that are strikingly similar. One is the Hero's Journey, described by Joseph Campbell in his classic text, *The Hero with a Thousand Faces*.<sup>5</sup> Comparing mythologies from a wide range of Indigenous cultures and religious traditions around the world, he uncovered a common pattern: a Departure from everyday reality, followed by a perilous Initiation in the depths, followed by the hero's Return to the ordinary world, bearing new insights and gifts.



Figure 2.4: The Hero's Journey, plotted against a U shape.

Because so many different patterns of Transformation align so closely with each other, it's reasonable to conclude that they're all pointing towards the same universal truth. Throughout this book, you'll encounter this meta-pattern applied to inner Transformation in the Spiral of the Work That Reconnects, interpersonal Transformation in the Stages of Group Development, and collective Transformation in the Five Stages of Transition:



Figure 2.5: The Spiral of the Work That Reconnects, plotted against a U shape.

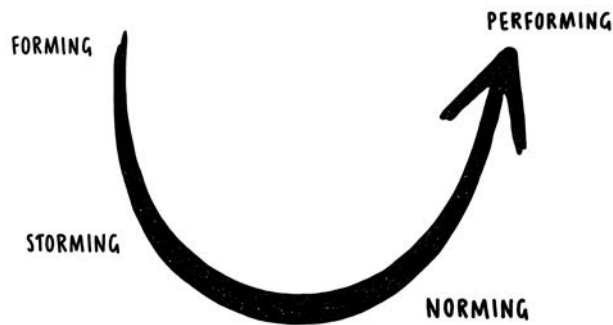


Figure 2.6: The Stages of Group Development, plotted against a U shape.

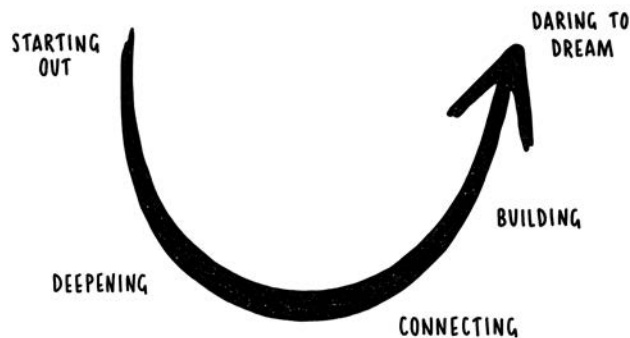


Figure 2.7: The Five Stages of Transition, plotted against a U shape.

Whatever language is used to describe Transformation, the following general principles underlie the process itself:

- **Transformation unfolds in predictable stages:** Some models are divided into dozens while others have as few as two, but their basic outline is the same: we need to let go of who we think we are and what we think we know to make space for something new to emerge. It's a process of moving downward and inward from (our head to our heart), then expanding upward and outward (from our heart to our hands).
- **We can't skip stages:** As much as we might want to jump directly from point A (our current reality) to point B (a desired future), this typically isn't possible. We usually have to embark on a circuitous journey to



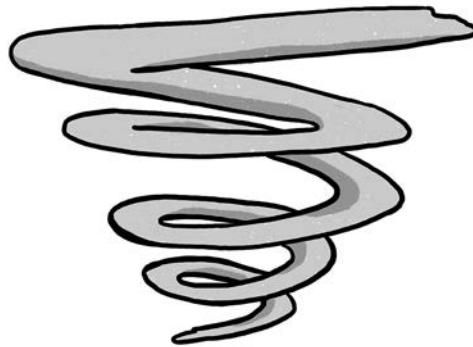
reach our destination. The quickest route between two points is often not the most direct. If we are climbing a mountain, we'll likely need to take switchbacks to reach the top. Although we do need to leap sometimes, trying to make a long journey by leaping from one spot to the next is insanity. We'll tire ourselves out long before we get there.

- **Transformation is challenging, but it's ultimately worth it:** Whenever we leave behind familiar territory to venture into the unknown, we inevitably encounter many difficulties. Nevertheless, if we persist on our path, we cannot help learning a great many things along the way and growing tremendously as people.

It's important to note that this journey through the U can manifest in various ways. It can happen in the blink of an eye or unfold gradually throughout a lifetime. We may be involved in several U processes simultaneously and find ourselves at different stages in relation to each. Once you know what to look for, you'll start seeing this meta-pattern everywhere.

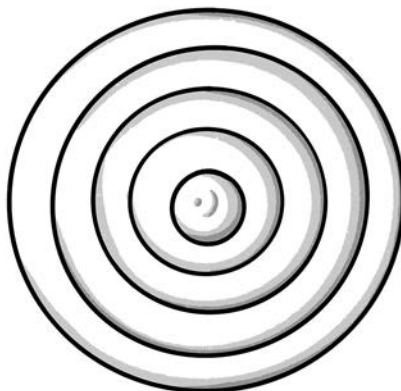
### Patterns of Expansion

While patterns of Transformation can be used to describe a complete process, they can also be thought of as just one step in a much greater journey. If we look at a spiral, we can see that it's actually made up of a series of U shapes. This is an image of the union of the meta-patterns of Transformation and Expansion.



*Figure 2.8: The union of Transformation and Expansion.*

A spiral is not just a series of U shapes, however. It has an element of Expansion in it as well. If we look at a spiral from its top or bottom, the essence of Expansion is revealed. It appears as a series of concentric circles, like ripples from a stone thrown into the middle of a pond:



*Figure 2.9: The archetypal ripple pattern of Expansion.*

Patterns of Expansion are found everywhere in nature. Human beings always start off as babies, infants, children, and adolescents before maturing into adults. In a similar way, an oak always goes through the process of being a seed and a sapling before it becomes a tree. It never happens that a tree just spontaneously erupts, fully formed, from a seed.

If properly nurtured, trees and people and all other forms of life gradually evolve in the direction of their highest potential. Atoms join to make molecules, which combine to form organelles, cells, tissues, organs, organisms, and ecosystems. Each stage in the development of life introduces new circumstances and conditions, new challenges and opportunities.

An especially vivid example of this meta-pattern is the process of ecological succession. Consider this poetic passage from Toby Hemenway's *Gaia's Garden: A Guide to Home-Scale Permaculture*:

When plants first colonize bare earth—for example, an abandoned farm—a progression begins. Certain types of annual grasses, herbs, and flowers are the first flora to arrive, and because of their penchant for speedy colonization, they are called pioneer plants. They're well

adapted to invading naked or disturbed soil and mantling the floral emptiness with green. Pioneer plants fill the vegetal vacuum and restart the cycles of life. We know most of this fast-colonizing horde as weeds: crabgrass, dandelion, sheep sorrel, pigweed, plantain, chicory, wild lettuce, and many more. Abandoned fields and fresh earth are their milieu, and they have a job to do: sheltering the bare soil from erosive rains, and ferrying nutrients from deep in the soil to the surface where they can be used. These fast-growing, short-lived pioneers preserve and restore the fertility of disturbed ground.

If these weeds are left alone, in a few seasons the short, early annuals are crowded and shaded out by a taller, mostly perennial crew. In the northern half of the United States, these include asters, fireweed, goldenrod, spurge, perennial grasses, and many others. The dense foliage, branching stems, and many textures of the tall weeds offer more niches for insects and birds to shelter, breed, and feed. The amount of living matter, called biomass, increases as nutrients and sunlight are gathered and transformed into tough stalks, thick greenery, and hardy seeds, which in turn become food for insects and other animals. In this way, life quickly gets a firm toehold on the bare ground. Where before the elements needed for life were confined to a thin band of topsoil, now these nutrients surge in a much thicker layer of vegetation filled with mobile animals. Life is scaffolding its way into new territory.

The progression from bare earth to short annual weeds to tall perennials is called *succession*. If allowed to continue, in five to fifteen years the weedy field will be clothed instead with perennial shrubs. With enough rain and fertility, in two or more decades, the shrubs will give way to a young forest.<sup>6</sup>

Life naturally creates the conditions for more and more life to thrive over time. It's only when we're out of alignment with nature's patterns and try to impose our will on them that we experience persistent degradation. Of course, accidents and disasters happen, but they're only temporary. Like periodic wildfires that reinvigorate the health of forests, they can even be beneficial.

Another pattern of Expansion worth noting here comes from the practice of Permaculture design. In laying out a homestead, one typically starts with one's home (Zone 0) and the space immediately surrounding it (Zone 1) because that's where most people spend most of their time. Zone 1 is where Permaculturalists typically locate their annual vegetable and herb gardens because they need to be irrigated and tended to every day during the growing season. One might keep bees, livestock, and compost in Zone 2, at a distance where they can be checked on frequently but not so close that one has to worry about stings and bad smells. Zone 3 is usually where perennial crops, such as fruit trees, are grown. Zone 4 is often reserved for foraging, and Zone 5 is meant to be left entirely wild.



Figure 2.10: Permaculture Zones.

As with many of the other models I present throughout this book, this is a greatly simplified description of Permaculture Zones. They're almost never perfect circles, and what's contained within each zone differs, depending on the characteristics of the site and the aims of its developers. Nevertheless, Permaculture Zones effectively demonstrate a natural progression from what is closest to us (over which we have the most influence) to what is farthest away (over which we have the least control).

Translating this from the realm of Permaculture design to evolutionary change, Zone 0 can be thought of as our personal development work, the foundation upon which everything else rests. Zone 1 represents home and family life; Zone 2, our involvement in our wider community; Zone 3,

any regional or national influence we might have; and Zone 4, whatever impact we're able to muster on a global scale. I tend to think of Zone 5 as the vast universe beyond Earth, which remains almost entirely beyond human interference and understanding.

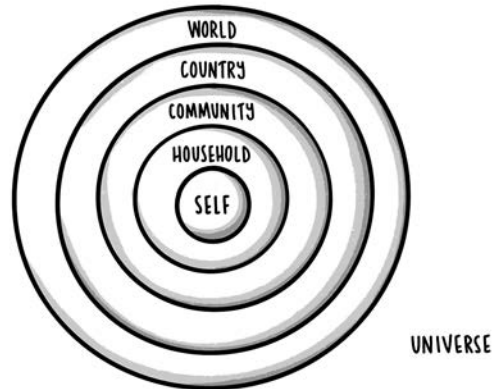


Figure 2.11: Zones of evolutionary change.

While we may desire influence at national and international levels, it's only by working with Zones 0, 1, and 2 first that we have any hope of making a positive contribution in Zones 3 and 4. This doesn't mean we need to perfect each zone before moving onto the next, but the more experience we have cultivating change in ourselves, at home, and in our local communities, the more likely it is that our efforts to bring about larger-scale transformation will succeed.

It's also important to recognize that we don't leave behind earlier zones as we progress. Even if we happen to find ourselves in positions of national or global leadership, it's essential that we continue to work on ourselves and stay in touch with the grassroots. Otherwise, we can easily become ungrounded, intoxicated by our own sense of importance and disconnected from reality.

### Patterns of Wholeness

In addition to the meta-patterns of Transformation and Expansion, which represent the vertical dimension of evolutionary change, there are the meta-patterns of Wholeness and Balance, which constitute its horizontal

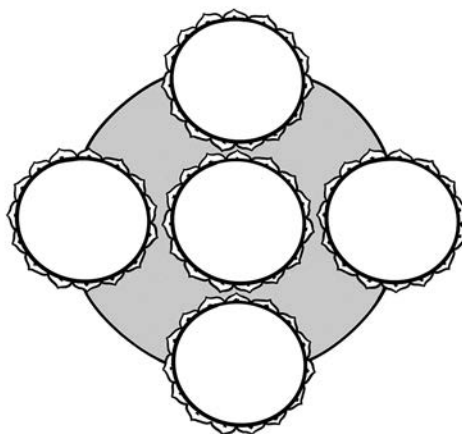
axis. The main difference between these two is that “vertical” change refers to processes that only unfold over time, while “horizontal” change describes the development of innate capacities.<sup>7</sup>

In reality, these two dimensions aren’t separate. Wholeness and Balance run like threads throughout our journey, evolving as we transition from stage to stage and level to level.

We observe patterns of Wholeness in nature when we look at how a limited number of elements combine to create a world of dazzling diversity or how various organs, parts, and systems cooperate to make a body dance. Often, we seek to avoid this level of complexity by boiling everything down to just one or two factors, but a monoculture with only one or two species cannot be sustained.

Wholeness, in the context of this book, is partly about becoming a more well-rounded person, developing all of our innate capacities so we can thrive in any situation. However, patterns of Wholeness can also be applied to groups, communities, and movements. Different circumstances call for different energies and approaches, and on the journey of evolutionary change, we need them all.

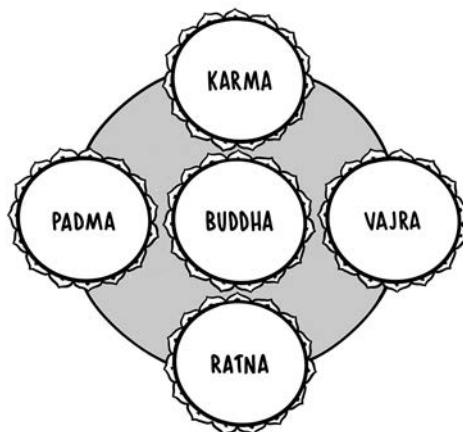
The archetypal form of Wholeness can be visualized as a mandala, a sacred circle with its essence firmly planted in the center, radiating outward to encompass a variety of manifestations. In Tibetan Buddhist iconography,



*Figure 2.12: The archetypal mandala of Wholeness.*

mandalas are sometimes visualized as royal palaces with a central deity surrounded by four gates. In some North American Indigenous cultures, these four gates are depicted as the four directions of a medicine wheel.

The Five Buddha families are a particularly potent example of this meta-pattern. In the center is the Buddha Buddha family, which represents enlightened spaciousness. It is surrounded in the East by the Vajra Buddha family, which represents enlightened clarity; in the South by the Ratna Buddha family, which represents enlightened richness; in the West by the Padma Buddha family, which represents enlightened passion; and in the North by the Karma Buddha family, which represents enlightened activity.<sup>8</sup>



*Figure 2.13: The Mandala of the Five Buddha families.*

Although most people naturally gravitate towards some Buddha families more than others, the point is to cultivate all five kinds of wisdom. This is a different approach than is commonly taken in relation to astrology or popular personality tests like Myers-Briggs or the Enneagram. While these models help us identify our natural strengths and predispositions, they don't usually encourage us towards Wholeness. For example, if we're a Leo, we don't necessarily think about how we might become a better Taurus, Gemini, or Cancer.

Other patterns of Wholeness you'll come across in this book include the Four Quadrants of Ken Wilber, which integrate the inner with the outer

and the individual with the collective; the Permaculture Flower, with its seven petals representing different aspects of society and pistil containing core Permaculture ethics and design principles; and the Transition Animal, with its four legs, eyes, heart, and surrounding environment representing the Seven Essential Ingredients of the Transition model:

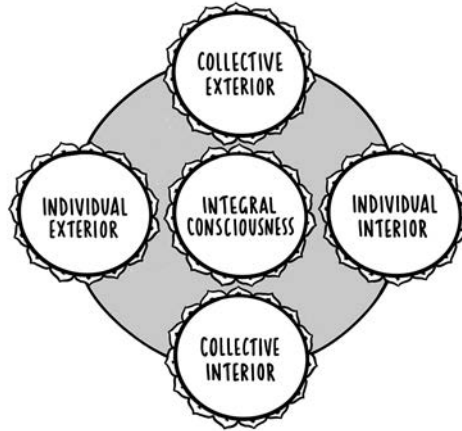


Figure 2.14: The Four Quadrants of Ken Wilber, arranged as a mandala.

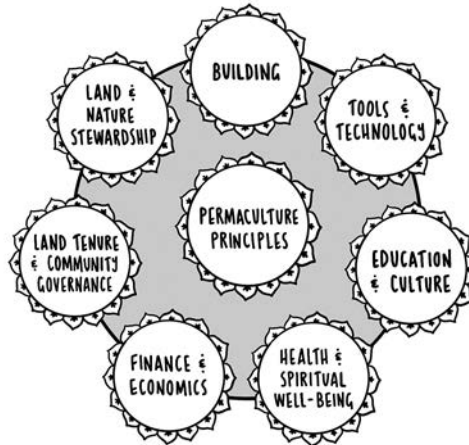


Figure 2.15: The Permaculture Flower, arranged as a mandala.



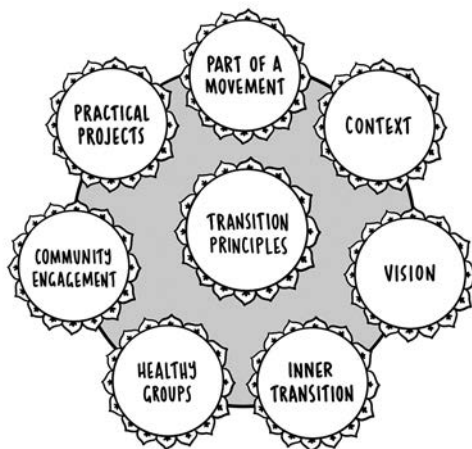


Figure 2.16: *The Transition Animal*, arranged as a mandala.

## Patterns of Balance

Balance is often thought of as a static state, but not even death is truly static. Life, as living systems science tells us, exists in a dynamic state far from equilibrium. As such, Balance is constantly in flux, and there's no magic formula that can tell us how to find it. Instead, we have to experiment and engage our intuition to pinpoint the sweet spot.

There's a famous story in Buddhism about a sitar player who asked the historical Buddha how to work with his mind in meditation. The Buddha replied by turning the question around on the sitar player, asking him how he tuned his instrument. After reflecting for a moment, the sitar player replied: "Not too loose, not too tight." In other words, you know it when you hear it.

In nature, we see patterns of Balance at work in the alternation of day and night, predator-prey relationships, and negative (or self-balancing) feedback loops. A classic example of a self-balancing feedback loop is a thermostat. When the temperature in your house rises above a certain point, your thermostat senses that and temporarily shuts off your heat. Then, when the temperature falls back below that same point, your heat automatically kicks back on again.

Most of Earth's natural cycles, such as the carbon cycle, have evolved to function this way. Historically, plants, animals, oceans, and soil have all

worked together to keep levels of carbon dioxide in our atmosphere relatively stable. However, since people began digging up and burning massive amounts of fossil fuels that took millions of years to form, we have upset that delicate balance, bringing about disastrous consequences in just a few short centuries.

Evolutionary change also harnesses the power of positive (or self-amplifying) feedback loops, but we need to be extremely careful with them. Although self-amplifying loops can be revolutionary, they can easily spiral out of control. An example of this is the effect of climate change on Earth's polar regions, where increased temperatures have caused ice to melt, exposing darker land and ocean beneath. These darker surfaces, in turn, absorb more heat, warming the planet further and melting more ice even faster.

The yin-yang, associated with Taoist philosophy, is perhaps the most well-known symbol of Balance. With its swirling patterns of dark and light, each containing a bit of the other, it represents interdependence and harmony among opposites:



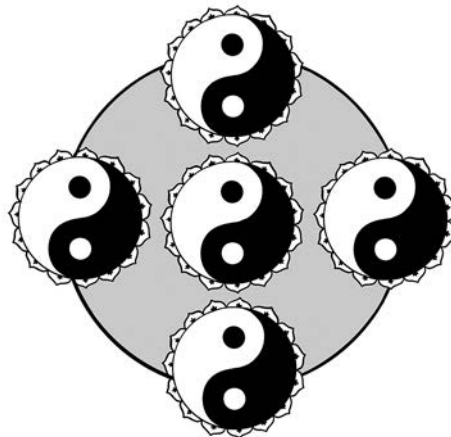
*Figure 2.17: The archetypal yin-yang of Balance.*

Normally, we try to draw towards ourselves everything we think will benefit us while pushing away whatever appears unfamiliar, threatening, or unpleasant. While this approach to life has its logic, the problem is that we don't always know what will help and what will hurt us. If we only seek

out that which is comfortable, pleasurable, and easy, avoiding anything that's difficult, we'll eventually find ourselves stunted, arrested in our development. I know many people who choose to focus only on the "positive" aspects of life, rejecting the widespread suffering of our world as too "negative" to even contemplate. If we do this, however, we'll end up naive, uncompassionate, and small. To realize our fullest potential, we need to embrace the totality of our experience, whatever that may be.

The meta-pattern of Balance can also be expressed as a spectrum or paradox: a seeming contradiction that isn't really a contradiction at all. Ultimately, we need to abandon all fixed ideas and dualistic thinking. While philosophers have debated fate versus free will for thousands of years, most have failed to realize that life isn't an either/or. It's a both/and. Rarely is the answer black or white, and there are many beautiful colors in between.

Patterns of Balance in this book include the inseparability of self and other, freedom and limitation, action and reflection, and challenge and opportunity. They are also evident in the ways that Wholeness and Balance, like Transformation and Expansion, complement each other. We can imagine the yin-yang of Balance being placed at the center of the mandala of Wholeness and radiating out from there. In seeking to cultivate Wholeness, we not only need to engage and develop every part but also ensure each part is continuously held in Balance.



*Figure 2.18: The union of Wholeness and Balance.*

Similarly, in attempting to envision the relationship between horizontal and vertical change, we should try to avoid imagining them as separate processes. Evolutionary change isn't a spiral placed on top of a mandala, like a vase on a table. It is more like a spiral pulsing with mandalas or a mandala twisting itself into a spiral. While this may be difficult to visualize, it points to the nondualistic nature of evolutionary change. It is an all-of-the-above, complexity-oriented approach.