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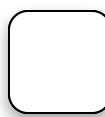
# What does 'regenerative' thinking mean?

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Regenerative Design[CIRCULAR ECONOMY](#)[SUSTAINABILITY](#)[ENVIRONMENT](#)[☆ SAVE TO MY RSA](#)

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To shape an equitable future we must find a new way of imagining our place within the world, one where everything is connected.

The RSA recently launched its [Regenerative Futures](#) programme, which aims to help shape an equitable future in which all of us can thrive as part of the Earth's ecology. It builds on the organisation's long heritage of promoting pioneering approaches to social and environmental challenges. The scope of its ventures range from the Great Recovery project, which changed the debate about the role of design in a circular economy, to our more recent Leeds Fashion Futures project, which saw us explore the potential for a more place-based approach to addressing the systemic challenges of clothing.

 words 'regeneration' or 'regenerative' are increasingly being used across sectors, from economics to farming, and are often included in descriptions of the goals of circular economy and

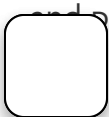
just transition movements. However, a quick look at different examples shows that the terms are not used consistently. They are sometimes employed as a straight substitution for other words, such as 'sustainable' or 'recycled'. In other situations, they are used to describe specific practices, such as no-till farming, and in others still, used to describe mindsets or belief systems, such as indigenous wisdom traditions. So, what is really meant by 'regenerative'? Is this merely a new buzzword or does it signify something deeper?

At the RSA, we have been exploring these questions. Far from simply being a new piece of jargon, we believe that regenerative thinking, when used in its fullest sense, marks a fundamental shift in thought and action. Growing interest in regenerative thinking signifies the emergence of a new paradigm that will prove to be critical for anyone interested in social, economic or environmental change.

A 'regenerative' mindset is one that sees the world as built around reciprocal and co-evolutionary relationships, where humans, other living beings and ecosystems rely on one another for health, and shape (and are shaped by) their connections with one another. It recognises that addressing the interconnected social and environmental challenges we face is dependent on rebalancing and restoring these relationships.

This way of seeing the world is far from new. It has a long heritage, woven through cultures, indigenous wisdom traditions, philosophies, religions and communities around the world and across time. Despite this, the economic and socio-political structures that have developed over the past few centuries and that shape our globalised world are rooted in human-centred narratives, emphasising competition and individualism over co-evolution and holism. These dominant narratives fail to recognise the truth behind environmental scientist John Muir's observation, more than a century ago, that: "When we try to pick out anything by itself, we find it hitched to everything else in the Universe."

As we enter the second decade of the 21st century, it is increasingly clear that we are in a period of dramatic change and are seeing the breakdown of systems and structures around us. These shifting sands are evident in many areas: work is changing, climate breakdown is biting, identity boundaries are moving, biodiversity is declining and political landscapes are being redrawn. From the financial crash to the environmental crisis, Black Lives Matter to the #MeToo movement, systems, structures and institutions are being openly questioned and do not appear to be serving us well. Making incremental improvements to these existing systems is not enough to deal with challenges of this magnitude; instead these disruptions are paving the way for transformational and paradigmatic change.



## Exploring different paths

We can imagine different world views as different paths in a forest. The path we have been exploring for the last few centuries has been very fruitful, so much so that to many it might seem like the only path there is. The knowledge, discoveries and technologies that we have generated on this path have changed lives. However, they have also generated harm, for example with the arrival of climate change, biodiversity loss and a rise in mental ill-health and isolation. We have become increasingly divided from nature and often from one another. Moreover, it has led us to prioritise certain ideas and processes over others, such as linearity, separation, replicability, reductionism, homogenisation and growth, and in so doing has crowded out other perspectives.

Today, our path has reached a cliff edge. As a species we are disrupting the balance of our Earth and undermining the systems that make our home liveable. At the same time, we are extracting from and exploiting one another. Despite the wealth and technology available in the world today, millions of people remain in poverty, and shocks like the pandemic and climate change reinforce and exaggerate existing racial, gender and wealth inequalities.

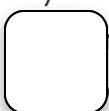
To a minority, the only answer seems to be to doggedly stick to the route we are on. But we have another choice. We can remember the other paths around us that we have separated from and choose also to explore those.

## A living systems perspective

There are other ways of understanding our world: perspectives that see the Earth as made up of complex living and evolving systems, which acknowledge the relationships between things, and value multiple ways of knowing. These ideas are at the heart of regenerative thinking and are seen in fields from computing to physics to ecology, where theories of living systems are increasingly reflecting a more accurate view of the workings of our planet. Biomimicry expert, biologist and self-proclaimed 'nature nerd' Janine Benyus has said that we need to take a place in nature's class "not to learn about nature that we might circumvent or control her, but to learn from nature so that we might fit in at last and for good, on the Earth from which we sprang".

To help us to structure our thinking, what mental models might support us to move towards recognising and understanding living systems?

First, living systems are nested. This 'nested' characteristic, or holarchy, describes how living systems sit within one another to form larger and more complex systems. Consider your heart,



is a whole system on its own with parts that interact with one another and have elementary functions. But it also forms part of your circulatory system, which sits within your

body, you within your family and so on. The layers of nested systems are whole, in and of themselves, but to understand their function you must see them as part of the wider systems they form. Like our hearts, their function is only fulfilled when it is within the wider system.

The British economist Kate Raworth is not alone in arguing that an economy can only fulfil its function once we recognise that it is 'nested' within society and that human society is nested within the wider natural world. Disease in your heart affects the overall health of the individual. In a social setting, poor 'health' of a neighbourhood, say through lack of work opportunities, poverty or inequality, can have knock-on negative effects for the socio-economic and environmental flourishing of the broader region.

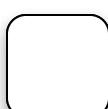
Second, living systems move and change. This sets them apart from mechanical systems, like the engine of a car, where the parts and relationships are static and stay the same over time.

Regenerative development practitioner Jenny Andersson describes this movement as a flow between convergence, divergence and emergence. Resilience is found in the relationship between these dynamics. Too much convergence and a system may become rigid, too much divergence and it becomes chaotic. Living systems will often be operating and finding balance between these two states in order to maintain integrity in the long term. Ongoing adaptation provides greater resilience than rigidity – earthquake-proof buildings, for example, are designed to absorb energy and move in response to seismic events rather than resist them.

Third, living systems are emergent. Because they are made up of nested and interacting parts, living systems have properties that emerge from the interconnections between parts – properties that would not emerge from those parts in isolation. This emergence happens in a non-linear and unpredictable way. In hindsight, it is possible to identify cause and effect, but the multiple possible avenues open at any one time mean that predicting exactly what will happen in advance is almost impossible.

These emergent properties have enabled biological evolution; likewise, arts, language and culture are all emergent properties of human interaction. Jazz music could not have been predicted, but in hindsight its influences can be clearly traced.

Emergent properties mean that, rather than acting and analysing after the fact (by which time the overall conditions are going to have changed), we need to probe, sense and then respond to what we find.

h, living systems favour diversity. Reductionism seeks efficiency, rationalisation andogeneity. According to the reductionist way of thinking, if we can cut the number of actions

or people or costs and still have the same or a better outcome, then we should do things this way.

However, living systems do not follow this rationale. So, for example, rainforests, perhaps the most mature systems on our planet, are not rationalised and efficient, with one type of tree repeated neatly. They are abundant, with a diversity of flora and fauna, some existing within impossibly small niches, others proliferating. For an animal, constant and ongoing competition is an unproductive route; much better to find key differences that allow you to live alongside others. In a world of constant change, putting all your eggs in one basket, even if it looks to be perfectly formed, is a foolish endeavour.

Fifth, living systems build mutuality and reciprocity. They are founded on relationships and interactions that create mutual net benefit. We often think of this in direct, two-way interactions between parties, such as the relationship between peas and other leguminous plants, and the nitrogen-fixing bacteria found in their roots, where the plant receives nitrogen from the bacteria and the bacteria receive sugars from the plant. But mutuality and reciprocity in nature extends beyond bidirectional transactions; we see abundance and generosity, as one species provides nutrients or helps create the conditions for others to thrive as well. Take for example the acorns of an oak tree: some will grow into saplings and others will provide food for nearby animals.

## The challenge

We are undoubtedly on the brink of profound transformation. Whether we are able to build a regenerative future for tomorrow depends on the actions and commitments we make today and the questions we ask ourselves.

Underpinning the everyday structures, systems and institutions in our lives are beliefs about how our world works and what our place in it is. More than ever, it is important that we are aware of these and how they guide our actions. Because although the daily news shows us the evidence of our impact as a species on our environment and on one another, from extreme weather and biodiversity loss to marginalisation and poor health, if we look around us, we can also see signs of a hopeful future in the here and now.

Interdependencies and relationships have never been more important. The social challenges that we are grappling with are nested within our environmental ones, carbon emissions are intertwined with community health, biodiversity with social justice, and so on. The world is made up of living systems that are complex and emergent, not linear and predictable. But humans are required to thrive in this world and the potential to act is already within us and our communities.

At the RSA, we are committing to building awareness of the importance of regenerative thinking, working with others to nurture the capabilities to put it into practice, and amplifying existing examples and creating new demonstrations that show what this looks and feels like in action.

Preparing ourselves for the journey is about reaching for a compass rather than a map. The terrain is as yet uncharted but by choosing a direction that sees our future health as being reliant on one another's health and the health of the species and ecosystems around us, we can find a path not only to sustaining but to flourishing. How might we embark on this new path together?

## **Guiding principles for regenerative thinking**

Regenerative thinking does not give us a blueprint for the future, but it can help us to ask better questions about where we want to go and how to get there. These are questions that move us from reductive and siloed thinking to dialogues that engage holistically with the challenges of our time.

There are several different sets of principles that have been proposed for underpinning regenerative working, notably by the Capital Institute and by regenerative development practitioners such as Carol Sanford and Bill Reed. Learning from these and drawing on our own insights, we have chosen the following design principles for the Regenerative Futures programme to help us put this thinking into action.

Under each principle we have given one example of the kind of questions these might prompt.

### **Start with place and context**

Recognise that people, places and communities have different and unique qualities. Question assumptions that context-agnostic or top-down solutions will work in any and every place. Instead, ask what it would look like to begin working from the potential that is offered by a place, community or specific context.

**How might starting with land, community and geography bring different qualities of conversation?**

### **Seek different perspectives**

Regenerative thinking recognises that complex problems look different from different perspectives and that a diversity of views are needed to address them. No one person can see the full picture and by missing certain perspectives we may end up addressing perceived rather than real challenges.



**How might the blind spots be in the work and how might they be illuminated?**

## **Build capability and reciprocity**

Work with people and places to create shared ownership of challenges and find shared solutions. Work to create the conditions where others can continue to shape the work into the future. Support others to build capabilities and nurture relationships, mutuality and reciprocity. Consider how mutuality and reciprocity can go beyond transactional 'you scratch my back and I'll scratch yours' relationships and into more systemic interactions.

**How might focusing on projects as catalysts, rather than end points, change the quality of work?**

## **Take a nested systems view of success and consequence**

Look beyond financial value and narrow measures of success. Recognise that you are working with nested wholes and be aware of the relationships between different layers. Always think about the impacts, consequences and contribution of your work on the wider wholes, both intended and unintended: across knowledge and skills; infrastructure and relationships (both physical and social); ecosystem health; biodiversity; resilience, etc.

**Where is value being captured and how could value be shared more widely and equitably?**

## **Design for circularity and circulation**

Ensure that information, value and power, as well as physical resources and elements, can flow and circulate across and between layers of the system in a way that helps the system regenerate. Enable participation and ensure that everyone can have their voices heard. Actively engage and create spaces for the exchange of ideas; encourage plurality and diversity.

**Might 'working in the open' help others to engage with and influence the work?**

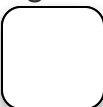
## **Create space for emergence**

Test and iterate ideas and activities, rather than planning then acting at scale. Recognise that this is the best way to learn about potential impacts and spot new opportunities or potential pitfalls. Share your insights widely. Recognise that scaling can happen in different ways: up, to influence rules or policies; out, through replication; or down, to change mindsets.

**How might you cultivate an experimental culture and create space for questioning assumptions?**

## **Design from a hopeful vision of the future**

The future is not predetermined. Beginning by envisioning a hopeful vision of where you want to get to can help you move beyond short-term barriers. Working from a place of hope, the 'what

 can build energy, momentum and commitment for the work that needs to happen now to

realise it.

How might starting from 'what if' rather than 'what is' shine new light on paths ahead?

## Work on the inside as well as the outside

Remember that your interior conditions – how you think, reflect, communicate – affect everything you do. Designing regeneratively involves a developmental outlook and requires us all to work on ourselves and our mindsets and behaviours as much as on the infrastructure, institutions, services and products in our external world.

How are my own perspectives changing and how am I reflecting on these changes?

*Find out more about the RSA's Regenerative Futures programme at [thersa.org/regenerative-futures](https://thersa.org/regenerative-futures)*

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*This article first appeared in the [RSA Journal Issue 4 2021](#)*

4 Comments

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**LORRAINE ARCHER**

25 July 2022

Very interesting. Thank you for your post.

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**MITCH WEISBURGH**

19 November 2021

Aren't we entering the 3rd decade, not the 2nd?

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**IAN CUNNINGHAM**

November 2021





Hi Josie A brilliant summary of the issues. Thanks. One next step is about how education needs to be radically changed to encourage the different kind of learning that is needed. Learning a regenerative mindset is one key dimension. The hidden curriculum of current schooling practices is to encourage an anti-systemic way of thinking with its reliance on subject divisions, its discouragement of difference and its reductionist emphasis. I look forward to hearing of further developments. Dr Ian Cunningham FRSA

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### MAXINE THOMAS-ASANTE

16 November 2021

This was a fantastic piece exploring innovative ways to address the climate emergency. I learnt a lot here about different approaches towards solving this significant issue. Discussions on the idea of emergences and co-evolutionary relationships were both progressive and nuanced. Thank you!

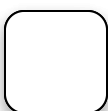
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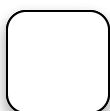
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