

Sustainability is not enough: we need regenerative cultures

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By Daniel C. Wahl

Sustainability alone is not an adequate goal. The word sustainability itself is inadequate, as it does not tell us what we are actually trying to sustain. In 2005, after spending two years working on my doctoral thesis on design for sustainability, I began to realize that what we are actually trying to sustain is the underlying pattern of health, resilience and adaptability that maintain this planet in a condition where life as a whole can flourish. Design for sustainability is, ultimately, design for human and planetary health (Wahl, 2006b).

A regenerative human culture is healthy, resilient and adaptable; it cares for the planet and it cares for life in the awareness that this is the most effective way to create a thriving future for all of humanity. The concept of resilience is closely related to health, as it describes the ability to recover basic vital functions and bounce back from any kind of temporary breakdown or crisis. When we aim for sustainability from a systemic perspective, we are trying to sustain the pattern that connects and strengthens the whole system. Sustainability is first and foremost about systemic health and resilience at different scales, from local, to regional and global.

Complexity science can teach us that as participants in a complex dynamic eco-psycho-social system that is subject to certain biophysical limits, our goal has to be appropriate participation, not prediction and control (Goodwin, 1999a). The best way to learn how to participate appropriately is to pay more attention to systemic relationships and interactions, to aim to support the resilience and health of the whole system, to foster diversity and redundancies at multiple scales, and to facilitate positive emergence through paying attention to the quality of connections and information flows in the system. This book explores *how* this might be done. [This is an excerpt of a subchapter from [Designing Regenerative Cultures](#), published by Triarchy Press, 2016.]

One proposal for guiding wise action in the face of dynamic complexity and 'not knowing' is to apply the *Precautionary Principle* as a framework that aims to avoid, as far as possible, actions that will negatively impact on environmental and human health in the future. From the United Nation's 'World Charter for Nature' in 1982, to the Montreal Protocol on Health in 1987, to the Rio Declaration in 1992, the Kyoto Protocol, and Rio+20 in 2012, we have committed to applying the Precautionary Principle over and over again.

The [Wingspread Consensus Statement on the Precautionary Principle](#) states: "When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically" (Wingspread Statement, 1998). The principle puts the burden of proof that a certain action is not harmful on those proposing and taking the action, yet general practice continues to allow all actions that have not (yet!) been proven to have potentially harmful effects to go ahead unscrutinized. In a nutshell, the Precautionary Principle can be summarized as follows: practice precaution in the face of uncertainty. This is *not* what we are doing.

While high-level UN groups and many national governments have repeatedly considered the Precautionary Principle as a wise way to guide actions, day-to-day practice shows that it is very hard to implement, as there will always be some degree of uncertainty. The Precautionary Principle could also

potentially stop sustainable innovation and block potentially highly beneficial new technologies on the basis that it cannot be proven with certainty that these technologies will not result in unexpected future side-effects that could be detrimental to human or environmental health.

Why not challenge designers, technologists, policy-makers, and planning professionals to evaluate their proposed actions on their positive, life-sustaining, restorative and regenerative potential?

Why not limit the scale of implementation of any innovation to local and regional levels until proof of its positive impact is unequivocally demonstrated?

Aiming to design for systemic health may not save us from unexpected side-effects and uncertainty, but it offers a trial and error path towards a regenerative culture. **We urgently need a Hippocratic Oath for design, technology and planning: do no harm!** To make this ethical imperative operational we need a salutogenic (health generating) intention behind all design, technology and planning: **We need to design for human, ecosystems and planetary health.** This way we can move more swiftly from the unsustainable 'business as usual' to restorative and regenerative innovations that will support the transition towards a regenerative culture. Let us ask ourselves:

How do we create design, technology, planning and policy decisions that positively support human, community and environmental health?

We need to respond to the fact that human activity over the last centuries and millennia has done damage to healthy ecosystems functioning. Resource availability is declining globally, while demand is rising as the human population continues to expand and we continue to erode ecosystems functions through irresponsible design and lifestyles of unbridled consumption.

If we meet the challenge of decreasing demand and consumption globally while replenishing resources through regenerative design and technology, we have a chance of making it through the eye of the needle and creating a regenerative human civilization. This shift will entail a transformation of the material resource basis of our civilization, away from fossil resources and towards renewably regenerated biological resources, along with a radical increase in resource productivity and recycling. Bill Reed has mapped out some of the essential shifts that will be needed to create a truly regenerative culture.

“Instead of doing less damage to the environment, it is necessary to learn how we can participate with the environment — using the health of ecological systems as a basis for design. [...] The shift from a fragmented worldview to a whole systems mental model is the significant leap our culture must make — framing and understanding living system interrelationships in an integrated way. A place-based approach is one way to achieve this understanding. [...] Our role, as designers and stakeholders is to shift our relationship to one that creates a whole system of mutually beneficial relationships.” — Bill Reed (2007: 674)

Reed named 'whole-systems thinking' and 'living-systems thinking' as the foundations of the shift in mental model that we need to create a regenerative culture. In Chapters 3, 4 and 5, we will explore these necessary shifts in perspective in some detail. They go hand-in-hand with a radical reframing of our understanding of sustainability. As Bill Reed puts it: “Sustainability is a progression towards a functional awareness that all things are connected; that the systems of commerce, building, society, geology, and nature are really one system of integrated relationships; that these systems are co-participants in the evolution of life” (2007). Once we make this shift in perspective we can understand life as “a whole process of continuous evolution towards richer, more diverse, and mutually beneficial relationships”. **Creating regenerative systems is not simply a technical, economic, ecological or social shift: it has to go hand-in-hand with an underlying shift in the way we think about ourselves, our relationships with each other and with life as a whole.**

Figure 1 shows the different shifts in perspective as we move from 'business as usual' to creating a

regenerative culture. The aim of creating regenerative cultures transcends and includes sustainability. *Restorative design* aims to restore healthy self-regulation to local ecosystems, and *reconciliatory design* takes the additional step of making explicit humanity's participatory involvement in life's processes and the unity of nature and culture. *Regenerative design* creates regenerative cultures capable of continuous learning and transformation in response to, and anticipation of, inevitable change. **Regenerative cultures safeguard and grow biocultural abundance for future generations of humanity and for life as a whole.**



Figure 1: Adapted from Reed (2006) with the author's permission

The 'story of separation' is reaching the limits of its usefulness and the negative effects of the associated worldview and resulting behaviour are beginning to impact on life as a whole. By having become a threat to planetary health we are learning to rediscover our intimate relationship with all of life. Bill Reed's vision of regenerative design for systemic health is in line with the pioneering work of people like Patrick Geddes, Aldo Leopold, Lewis Mumford, Buckminster Fuller, Ian McHarg, E.F. Schumacher, John Todd, John Tillman Lyle, David Orr, Bill Mollison, David Holmgren, and many others who have explored design in the context of the health of the whole system.

A new cultural narrative is emerging, capable of birthing and informing a truly regenerative human culture. We do not yet know all the details of how exactly this culture will manifest, nor do we know all the details of how we might get from the current 'world in crisis' situation to that thriving future of a regenerative culture. Yet aspects of this future are already with us.

In using the language of 'old story' and 'new story' we are in danger of thinking of this cultural

transformation as a replacement of the old story by a new story. Such separation into dualistic opposites is in itself part of the 'separation narrative' of the 'old story'. The 'new story' is not a complete negation of the currently dominant worldview. It includes this perspective but stops regarding it as the only perspective, opening up to the validity and necessity of multiple ways of knowing.

Embracing uncertainty and ambiguity makes us value multiple perspectives on our appropriate participation in complexity. These are perspectives that give value and validity not only to the 'old story' of separation, but also to the 'ancient story' of unity with the Earth and the cosmos. These are perspectives that may help us find a regenerative way of being human in deep intimacy, reciprocity and communion with life as a whole by becoming conscious co-creators of humanity's 'new story'.

Our impatience and urgency to jump to answers, solutions and conclusions too quickly is understandable in the face of increasing individual, collective, social, cultural and ecological suffering, but this tendency to favour answers rather than to deepen into the questions is in itself part of the old story of separation.

The art of transformative cultural innovation is to a large extent about making our peace with 'not knowing' and living into the questions more deeply, making sure we are asking the right questions, paying attention to our relationships and how we all bring forth a world not just through what we are doing, but through the quality of our being. A regenerative culture will emerge out of finding *and living* new ways of relating to self, community and to life as a whole. At the core of creating regenerative cultures is an invitation to *live the questions together*.

[This is an excerpt of a subchapter from [Designing Regenerative Cultures](#), published by Triarchy Press, 2016.]