

Permaculture & the end of extractivism:

Designing for regeneration

Andy Goldring, Luke Gooding, Tracy Simpson, Rebecca Upton, Emily Boxall

As the world grapples with deforestation, biodiversity loss, and depleted ecosystems, design must confront the legacies of extractivism. Permaculture offers a compelling alternative: a regenerative design approach that restores ecological health, rebuilds natural systems, and strengthens community resilience.

This work examines how the Permaculture Association (Britain), with over 40 years of experience, exemplifies regenerative practice through:

- Food sovereignty initiatives
- Urban rewilding projects
- Integration of permaculture into education and policy frameworks

These efforts demonstrate how communities can revive degraded landscapes, reconnect with place, and foster long-term ecological wellbeing.

Key Research Arguments

Permaculture is not just sustainable—it is regenerative. It contributes to circular economies, restores resources, and nurtures biodiversity.

Design must move beyond extraction. Permaculture shifts the paradigm by embedding ecological principles in agriculture, planning, and community systems.

The Permaculture Association's network is a vital design system. Its members collaborate across food systems, education, and policy to promote regenerative futures.

Regenerative Principle

Ecological Restoration
Systems Thinking
Biomimicry
Circular Economy

Permaculture Contribution

Soil recovery, biodiversity enhancement
Interlinked design of landscapes, food & people
Nature-inspired solutions embedded in land & policy
Waste reduction, resource cycling, shared resilience



What Next?

We stand at a turning point, between ecological breakdown and the opportunity to build a regenerative world. Permaculture is both a statement of hope and an embodied, active teaching for the repair of the damage already done. It calls on all of us, not just designers but neighbours, farmers, educators, and citizens, to claim responsibility for the systems, land, and communities we live upon. Whether you are designing cities, farming the land, planting forests, or crafting policies, regenerative design is yours to claim. Let us commit to taking the steps from intention to action, from preserving what remains to restoring what has been lost. The transformation starts where you are. Let's remake the world, beginning with the soil under our feet.

Ecological Citizen(s) Network+ is an EPSRC / UKRI funded project: EP/W020610/1
The Permaculture Association is a company (05908919) and registered charity (11 16699 and SC041695)
Photo: The 2024 Paramaethu Cymru Permaculture Festival, Three Pools Permaculture Farm, credit: Grace Solkins
Illustrations: Archetypes of an Ecological Citizen, part of the Preferable Futures Card Deck, credit: Amber Anderson, 2024

Case Study Themes

1. UK-Based Permaculture Initiatives Reviving Ecosystems and Supporting Local Livelihoods

Permaculture Association (Britain)
projects demonstrate how community-led design can regenerate ecosystems while fostering local economies. Examples include:

- Community orchards and agroforestry hubs that enhance biodiversity and provide food resilience.
- Urban rewilding schemes that transform neglected green spaces into ecologically rich commons.
- Land-based training centres offering regenerative skills development tied to place, culture, and livelihood.

2. Design Frameworks that Embed Resilience, Biomimicry, and System Coherence

Permaculture's design logic mirrors the interdependence and self-sustaining patterns found in nature.

- Resilience is built through redundancy, diversity, and adaptive cycles.
- Biomimicry is evident in the design of food forests, polycultures, and closed-loop systems.
- System coherence comes from integrating water, energy, shelter, and food within a unified ecological logic.

3. Permaculture's Contribution to Broader Regenerative Design and Sustainability Transitions

Permaculture design is not isolated—it feeds into wider regenerative movements:

- Influencing urban planning through green infrastructure, edible cities, and nature-based solutions.
- Shaping education and curriculum design, embedding ecological literacy across formal and informal learning.
- Informing sustainability policy through local food strategies and climate action plans.

Its contributions lie in both practice and pedagogy, showing how design can catalyse just transitions from the ground up.



Key Questions

How can permaculture design reshape agriculture, planning, and governance?

What role can networks like PA play in moving beyond extractive systems?

How can regenerative principles be mainstreamed in design disciplines?

Discussion Conclusion

Permaculture offers a design-led response to the end of extractivism, one rooted in principles of restoration, reciprocity, and regeneration. Rather than mitigating damage after it occurs, permaculture proposes a fundamentally different orientation: designing human systems that actively replenish ecosystems, build long-term resilience, and foster deeper interdependence between people and planet. This research highlights the value of permaculture as both a practical design methodology and a transformational worldview, capable of reshaping how we think about energy, food, shelter, and land use. The case studies examined demonstrate how permaculture can regenerate degraded land, strengthen community cohesion, and offer low-cost, high-impact strategies for local sustainability. Importantly, permaculture bridges ecological design with social justice, proposing not just greener solutions but fairer and more inclusive ones. Its potential lies in its ability to adapt across contexts, from rural to urban, grassroots to policy, and to embed design thinking into everyday life. As extractive models face ecological, economic, and moral collapse, permaculture reframes the role of design as a tool not for control, but for care. This shift, towards systems that heal rather than harm, invites designers, policymakers, and communities to co-create futures that are abundant, equitable, and deeply rooted in place. Permaculture is not a single solution, but it is a vital strand in the tapestry of regenerative design approaches urgently needed today.

