

Sustainable Innovation 2025

Sustainable Innovation in Products, Services and Business Models

Past, Present and Future

25th International Conference

30th and 31st October 2025

University for the Creative Arts

Epsom

Surrey

UK

<https://cfsd.org.uk/>

Thinking Global, Acting Local: Designing for Regenerative Solutions.

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This study contributes to the theme of Sustainable Innovation 2025 by exploring how regenerative design principles can empower novice designers to address sustainability challenges. Regenerative design and nature-based solution creation are examined through the lens of design thinking, focusing on how novice designers approach urban greenery solutions. The research highlights that global challenges like climate change can overwhelm beginners, emphasising the need for local concrete design tasks. These can be used to take concrete steps to green cities and use these local solutions to contribute to climate change and habitat improvement in ways that regenerate nature. This study advances the discussion on fostering innovation and equipping future designers to contribute meaningfully to sustainable development.

Regenerative design aims to restore, rather than deplete, using methods that align with nature's wisdom and the dynamics of living systems. In addition, nature-based solutions aim to increase urban renewal processes and enhance a city's livability. The research engaged 35 beginner designers in a challenge to develop regenerative urban greenery solutions by applying design thinking. Participants were introduced to key concepts, including design thinking, various design methods, and regenerative design principles, which they were expected to implement in their work. Their design process was evaluated through learning diaries and interviews to assess how participants understood and applied these approaches.

The findings indicate that while novice designers acknowledged the importance of regeneration in addressing global environmental issues, their aspirations to create solutions capable of "saving the planet" often led to a sense of overwhelm and limited their ability to develop practical outcomes. Despite being introduced to appropriate tools and methods, participants struggled to systematically articulate their design process, identify suitable methodologies, or evaluate their approaches. In addition, the participants could not identify which steps in the process helped them to reach the final concept, as the boundaries of the framework were unclear to them. This revealed a need for more precise frameworks and guidance to align with the participants' developing expertise.

The study highlights that global challenges such as climate change can hamper the design function by appearing too big and insurmountable, often leading to paralysis. To better support the implementation of design, it is recommended that a regenerative design approach be implemented to address inclusive, localised challenges that are understandable and more manageable. The key question here is: if this is the case, could regenerative design, focusing on local, participatory and user-oriented solutions, provide a more practical and empowering framework for novice designers to engage meaningfully with the problems posed by climate change?

This research contributes to the field of design education by highlighting the importance of developing complex design challenges and finding appropriate methodologies to implement design approaches. This will better equip novice designers with the tools and confidence needed to address pressing environmental challenges in a transformative and effective way.

