

Innovative landscape and nature-based solutions for sustainable futures

About

As Professor of Landscape and Nature-Based Solutions, Dr Benz Kotzen's research and outreach advocates for harmonious coexistence between technology and nature to address climate, urban sustainability and food security concerns. His projects range from urban environmental challenges to habitat restoration efforts and even extend to exploring sustainable practices for extraterrestrial environments.



Work

One of Benz's primary research areas focuses on mitigating the urban heat island effect and enhancing urban food security through green infrastructure. Based at the Stockwell Street building with its 0.5-hectare roof gardens and two cutting-edge aquaponic laboratories, Benz's work explores innovative solutions such as green roofs and living walls. These technologies are essential for creating cooler urban spaces, particularly as climate change exacerbates extreme heat.

The aquaponic labs at Greenwich are at the forefront of urban agriculture research, exploring methods to increase sustainable food production. With the Covid-19 pandemic revealing vulnerabilities in global food supply chains, Benz's research advocates for increased local food production as an essential aspect of resilient and self-sufficient communities.

Beyond urban settings, Benz's projects extend to arid and degraded landscapes, focusing on ecological restoration and biodiversity preservation. For over a decade, he has been engaged in habitat restoration projects across arid regions to both improve both biodiversity and local livelihoods including the Mediterranean Basin and Kenyan pastoral grasslands.

Benz's latest innovation utilises drone technology to seed degraded landscapes, enabling large-scale restoration of various ecosystems, including mangrove forests in Southeast Asia. By addressing soil degradation and loss of critical habitats, his projects support both environmental regeneration and community resilience, underscoring the transformative potential of technology combined with ecological knowledge.

SDGs



A crucial element of Benz's work is education, where he imparts a philosophy of Earth as a "paradise" with unparalleled diversity and balance. Through his teaching, he emphasises that technology alone cannot solve environmental challenges; nature must be central to any solution.



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