

GAIIA

ECOLOGICAL PERSPECTIVES FOR
SCIENCE AND SOCIETY
ÖKOLOGISCHE PERSPEKTIVEN FÜR
WISSENSCHAFT UND GESELLSCHAFT

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FOCUS NOVEL NATURES – NEW TECHNOLOGIES AND CONFLICTS IN NATURE CONSERVATION

Which nature should we protect? And how? Are new technologies such as gene drives the answer? Do we need new concepts like *novel natures* to draw attention to the interactions between novel natural environments and societal processes? Do we need to rethink the role of invasive species in nature conservation and restoration? This Special Focus opens the floor for cross-disciplinary debates on human relationships with natural environments and technologies.

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ideas about humans and nature



COVER PICTURE

A former railway site turned into a public park and now largely reclaimed by nature won the *International Carlo Scarpa Prize for Gardens 2022: Natur-Park Südgelände Berlin*. Ingo Kowarik, an urban ecologist and our interviewee in this issue, was involved in the design and planning of this novel urban ecosystem (pp. 128 f.).

© Fondazione Benetton Studi Ricerche, *International Carlo Scarpa Prize for Gardens 2022*. Photo: Marco Zanin.

Marion Meyers

ARTIFICIAL INTELLIGENCE AND DEGROWTH

Addressing the degrowth movement's vague vision of technology, this study discusses the appropriateness of Artificial Intelligence in the context of degrowth, using the concept of convivial tools designed to enhance human autonomy and relationships with others and nature.

LEVELS DIMENSIONS	MATERIALS harvesting, processing and disposal of raw material	PRODUCTION assembly, maintenance and repairs
RELATEDNESS What does it bring about between people?	⇒ environmental impacts of ML: use of rare earth elements (J, M) market driven — need-driven (J, M) alien implementation — respects local traditions	⇒ high complexity of ML: highly complex devices production (J, P) organization centralized — organization (J, P) distance-creating — complex org.
ACCESS Who can produce/ use it where and how?	⇒ environmental impacts of ML: use of rare earth elements (J, M) elitist — open to anyone (J, M) cost intensive — low cost	⇒ high complexity of ML: highly complex devices production (J, P) elitist — open to anyone (J, P) cost intensive — low cost (J, P) sector or general — knowledge based
ADAPTABILITY How independent and flexible is it?	⇒ environmental impacts of ML: use of rare earth elements (J, M) special machines — everyday tools (J, M) big scale economical — small scale economical (J, M) special materials — standardized materials	⇒ high complexity of ML: highly complex devices production (J, P) big scale economical — small scale (J, P) special machines — everyday (J, P) special conditions — everywhere
BIO-INTERACTION How does it interact with living?	⇒ environmental impacts of ML: environmental impacts of ML throughout supply chain	⇒ environmental impacts of ML: environmental impacts of ML throughout

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