Interdimensional Representations

A Critical and Collaborative Shift of Perspectives within the Highland Boundary Fault Zone

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Abstract

This visual essay explores the translation of complex environments through representations with attributes that are summarized as 'interdimensional'. These attributes are not yet elaborated, but the term emphasizes that these representations integrate different dimensions of experiencing and understanding various spatial scales and temporal perspectives. The process of producing these representations requires the Landscape Architect to encounter, investigate, and communicate life, materiality, and processes in an approach that values attentiveness and creativity.

The representations discussed were developed in the context of a design studio at the University of Edinburgh, which was elaborated and led by the author and situated within the Highland Boundary Fault Zone in Scotland. A studio collective, composed of Master's students in landscape architecture over two years, was encouraged to traverse the fault zone, taking into account social, ecological, and geological fractures, as well as points of tension and upheaval.

Operating from within the 'critical zone', the late Bruno Latour's and his collaborators' provocation has been adopted: that working from this perspective is necessary to recognize that we humans are 'living among the living' (Société d'Objets Cartographiques [SOC], 2018). The author's, and the design studio's approach encourages experimental drawing and making to develop 'ecologically explicit' landscape architecture—landscape interpretations and design propositions—that foreground and support more-than-human worlds.

Keywords

Astonishment, critical zones, interdimensional representations, landscape perception, shifting scales.

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Introduction

The 'critical zone', as described by Bruno Latour, is the thin surface film of the Earth where water, soil, subsoil, and the living world interact; it is a 'tapestry' of traces left by animated beings and the activities of living forms (Société d'Objets Cartographiques [SOC], 2018). This essay reflects on the representations from a design studio at the University of Edinburgh called the Highland Boundary Fault Zone. In the studio, which I, the author of this essay, led, students were exploring complex environments from the perspective of being within the critical zone. Within the studio, throughout the design process—from interpreting landscapes through to developing propositional design—representations depicting multiple spatial scales, perspectives, and temporalities were encouraged through written exercises, lecture material, and discussion. The reference to 'interdimensional' representations emerged through the practice and pedagogy of thinking through making, reflecting, and composing this visual essay. While the attributes summarized under this term still need to be elaborated in different settings, it can be stated that these representations seek to convey relationships between different dimensions of experiencing and understanding complex environments, emphasizing the importance of creativity and sensitivity in the process of representing.

Continuously shifting between scales, from the macro to the micro and back, these representations seek to explore and communicate processes, species, and interdependencies that transcend scales. At the macro scale, the studio aims to understand and translate ancient geological processes and their influence on today's topography, watercourses, ecological networks, human habitation, and systems. At the micro scale, we observe and attempt to capture the motions, habits, and processes of microecologies in relation to their wider bioregions. To enable an open process of exploration and find new approaches to more-than-human worlds, we find creative ways to discover, be astonished by, and articulate the importance of worlds typically unseen. Spanning out from here, we consider encounters and interactions and recognize interdependencies between species to work out how we might forge and maintain relationships. Through this constant recalibration of scales and focus, we set out to understand the potential of landscapes to support life in the 'thick present' (Haraway, 2016).[1]

'It may not be possible to grasp fully the immensity of geologic time, but one can at least develop some feeling for its proportions.' (Marcia Bjornerud 2018, p. 91)

The studio looks back 450 million years to the formation of a geological fault now barely visible, which today separates two distinct regions: the Scottish Highlands and the Lowlands. The Highland Boundary Fault is a complex structure; it evidences deep geological time spans and is a physical record of environmental and climate change. Written in the rocks, landforms, and soils are stories of ancient collisions and eruptions, changing climates, how ecologies have evolved, and how water and ice have continuously sculpted landscapes to the present day. Journeying through time, we collectively investigated and appreciated how the geodiversity and geomorphic processes have influenced the critical zone of the fault, including all living entities and their interactions.

1 Haraway's use of 'thick present' refers to a multifaceted understanding of time that intertwines past, present, and future. It encourages being engaged in the current moment while recognising historical influences and future implications.

Landscapes facing social and environmental pressures located within the Highland Boundary Fault zone have informed bold design speculations on how landscapes can mitigate the challenges faced by both humans and more-than-humans within and beyond the contested epoch of the Anthropocene.The studio's ethos is to go beyond simple surfaces and to engage deeply with cultural and ecological communities. We make careful and thoughtful readings and work to represent a complex mesh of beings, animated materials, and associated processes. Working from this perspective is necessary to recognize that we are 'living among the living' (SOC, 2018). The drawings and making practices that follow recognize and celebrate other beings that exist together with 'us' humans and consider matter and processes that will transcend our lifetimes. Thinking through a practice of experimental drawing and making informs the students' ecological awareness and the development of 'ecologically explicit' (Morton, 2021) landscape architectural design.[2]

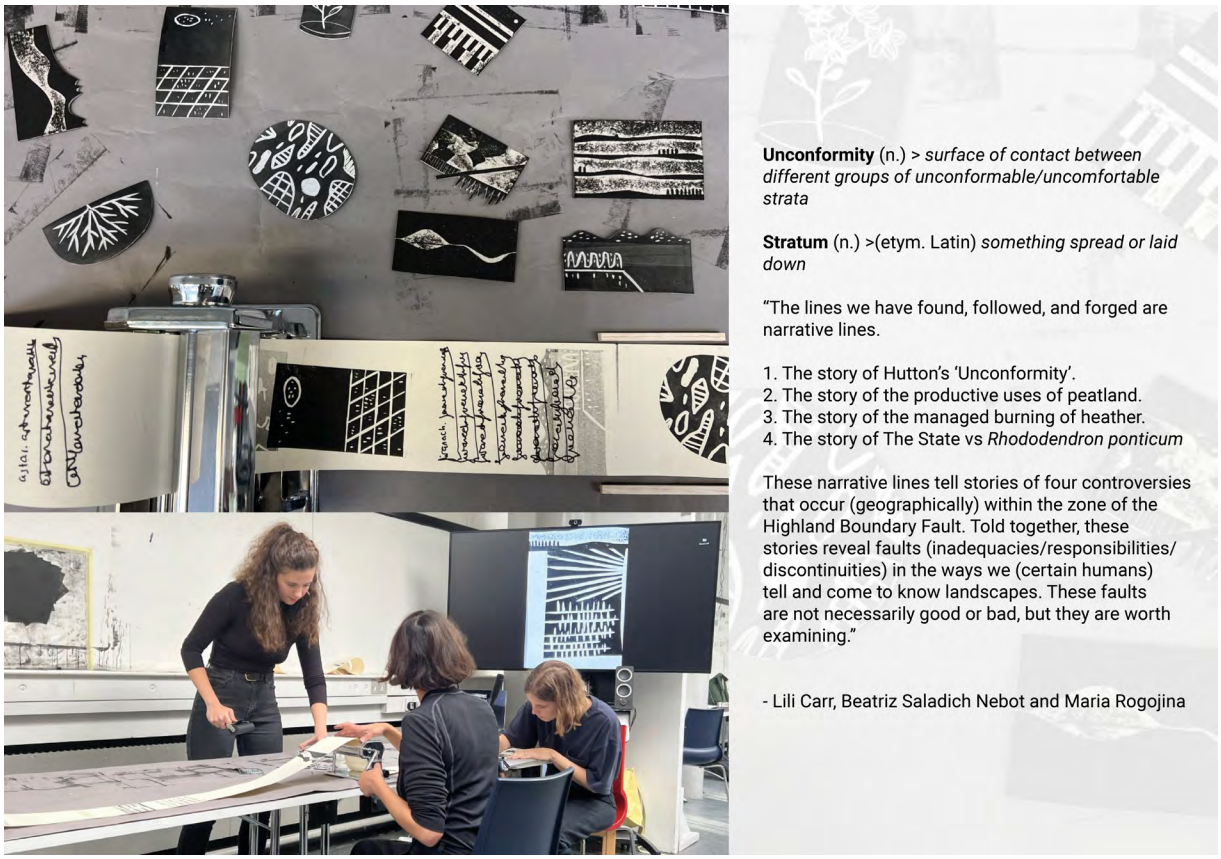

FIGURE 1

Unconformities performance drawing. (Performance by Carr, L., Rogojina, M., & Saladich Nebot, B. 2022. Photographs by Rhodes, A. 2022)

2 'Ecologically explicit' art, as coined by philosopher Timothy Morton, is simply art that brings this solidarity with the nonhuman to the foreground.

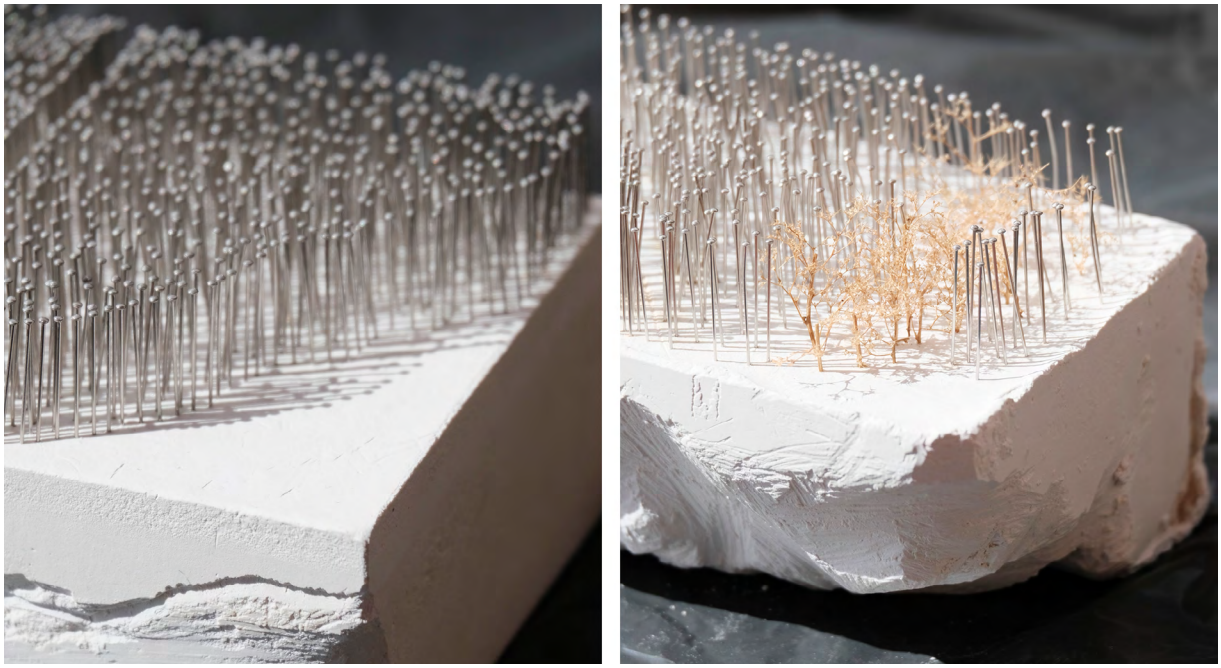

FIGURE 2

Gentle gestures, carving woodland, allowing light in. Layla Ho Kwan Ng's project, situated in the Tay Forest Park, Dunkeld, reimagines conifer forestry management practices through the medium of light. The project explores the relationship between light and shadow, the balance of which influences forest dynamics such as photosynthesis, growth, and, ultimately, the diversity of more-than-human species. Critical of clear fell techniques and short rotational cycles that create monotonous light and shadow contrasts, Layla Ho Kwan Ng views these as destructive practices with ecological and experiential repercussions. Instead, she proposes gentle gestures of thinning to encourage the gradual transformation of conifer plantations into a rich woodland ecosystem. (Drawing by Ng, L.H.K. 2024)

FIGURE 3

Thinking through light. Thinking of trees as sculptures at various scales and resolutions, Layla Ho Kwan Ng, observes how light affects individual trees, community formations, and, importantly, the in-between spaces for vegetative ecologies to thrive and for humans to experience. Her representational and design approach is to sculpt. The carving practices within her model making and drawing with light are akin to her proposals to gradually carve paths and clearings in dense plantations to allow light to activate a biodiverse future. Experimental making practices have been vital to deepen her ideas and connection to the materiality and light-triggered atmospheres of woodlands. (Drawing by Ng, L.H.K. 2024)

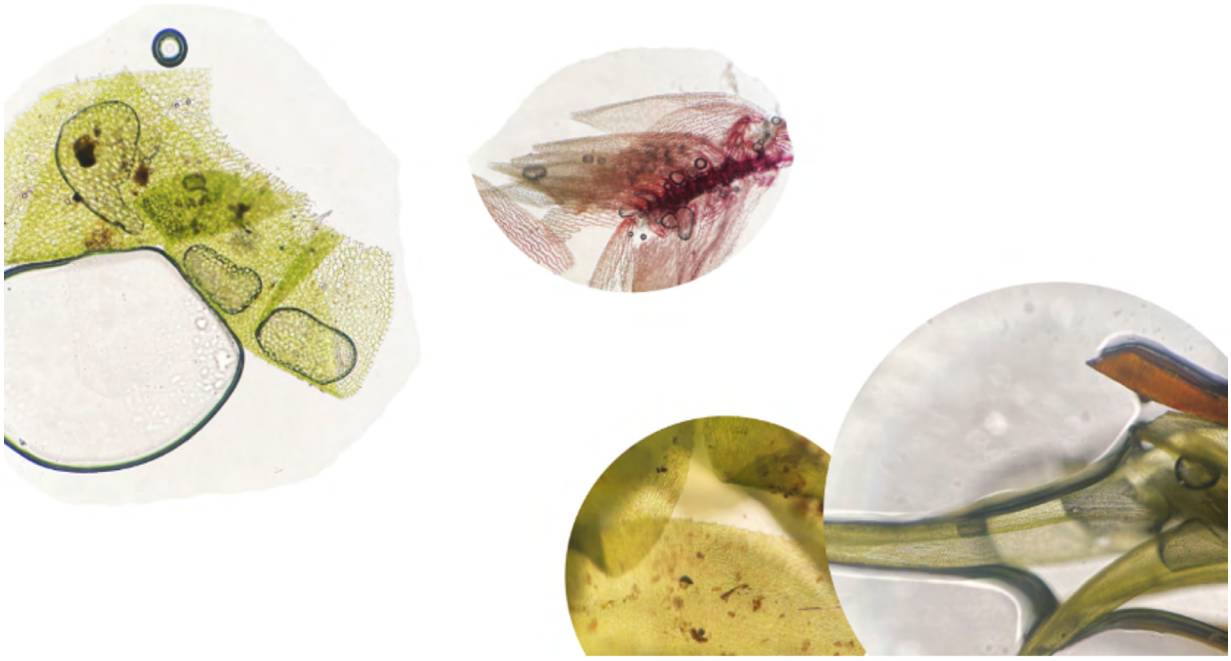

FIGURE 4

Moss microscopy. Initial research into freshwater cycles, flooding, and glaciation influenced Babs Brand's exploration of the Highland Boundary Fault zone. Settling on a study of high-risk flood zones along the River Tay her fieldwork focused on plant communities along the Tay's tributaries and small waterbodies, igniting a fascination with mosses. Through microscopy and a practice of developing illustrative prints, she delved into the beauty and importance of mosses, appreciating their capabilities for storing water and their influence within the wider context. (Drawing by Brand, B. 2023)

FIGURE 5

The beauty of moss. Playing with scale by enlarging the delicate and microscopic intricacy of mosses, curious and sensitive representations emerged from montaged images and paper embossing techniques. The iterative process of experimental making added to the conceptual narrative of the project, the absorbent paper morphing when wet, parallels with a developing appreciation of mosses' capabilities for storing water and their collective potential to relieve flood pressures. (Drawing by Brand, B. 2023)

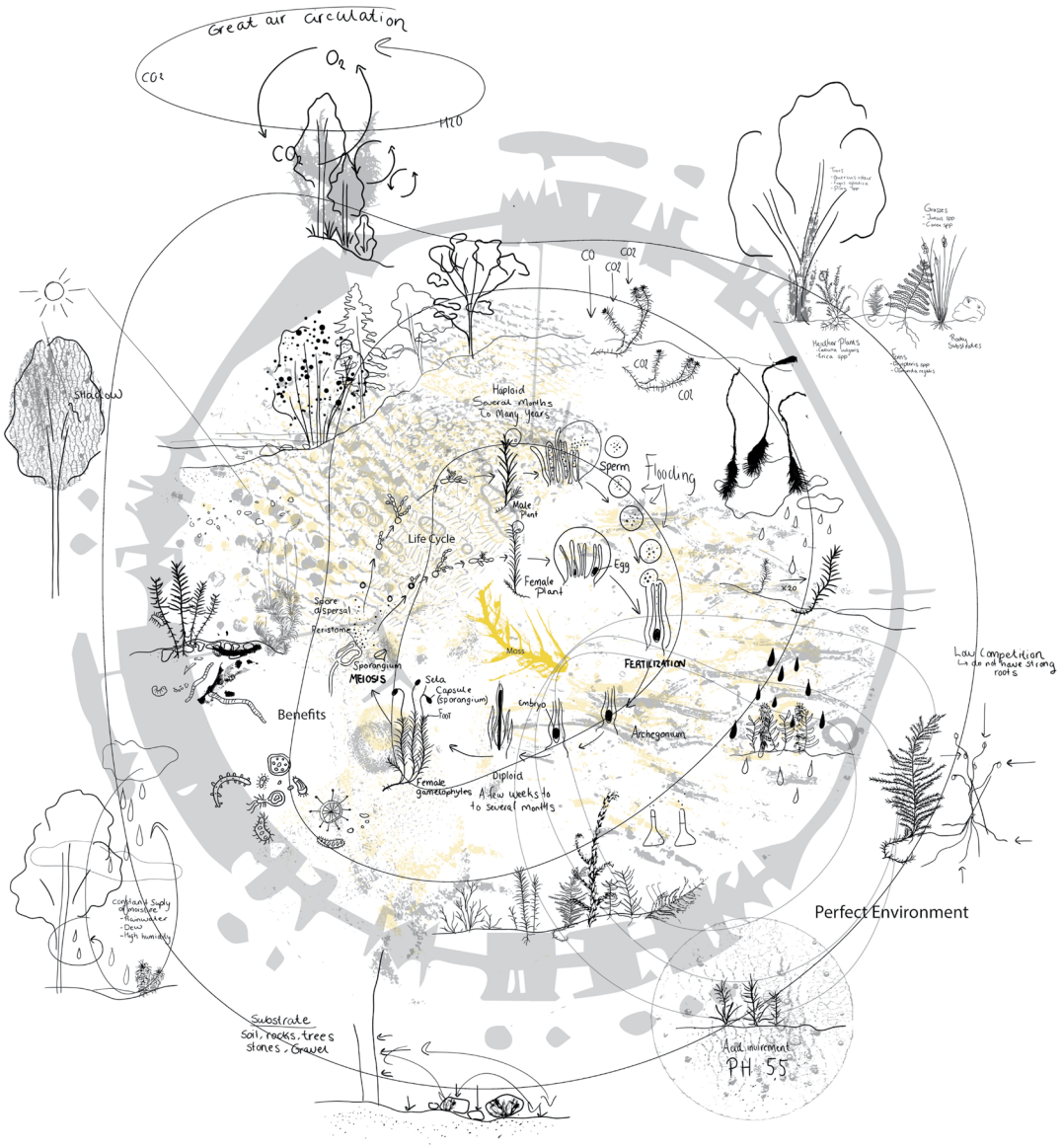

FIGURE 6

Nesting scales and cycles. Interdimensional representations of the environmental conditions that moss species need and create to thrive alongside their reproductive and life cycles demonstrate an appreciation for how vital these often-overlooked micro-species are to their macro worlds. (Drawing by Brand, B. 2023)

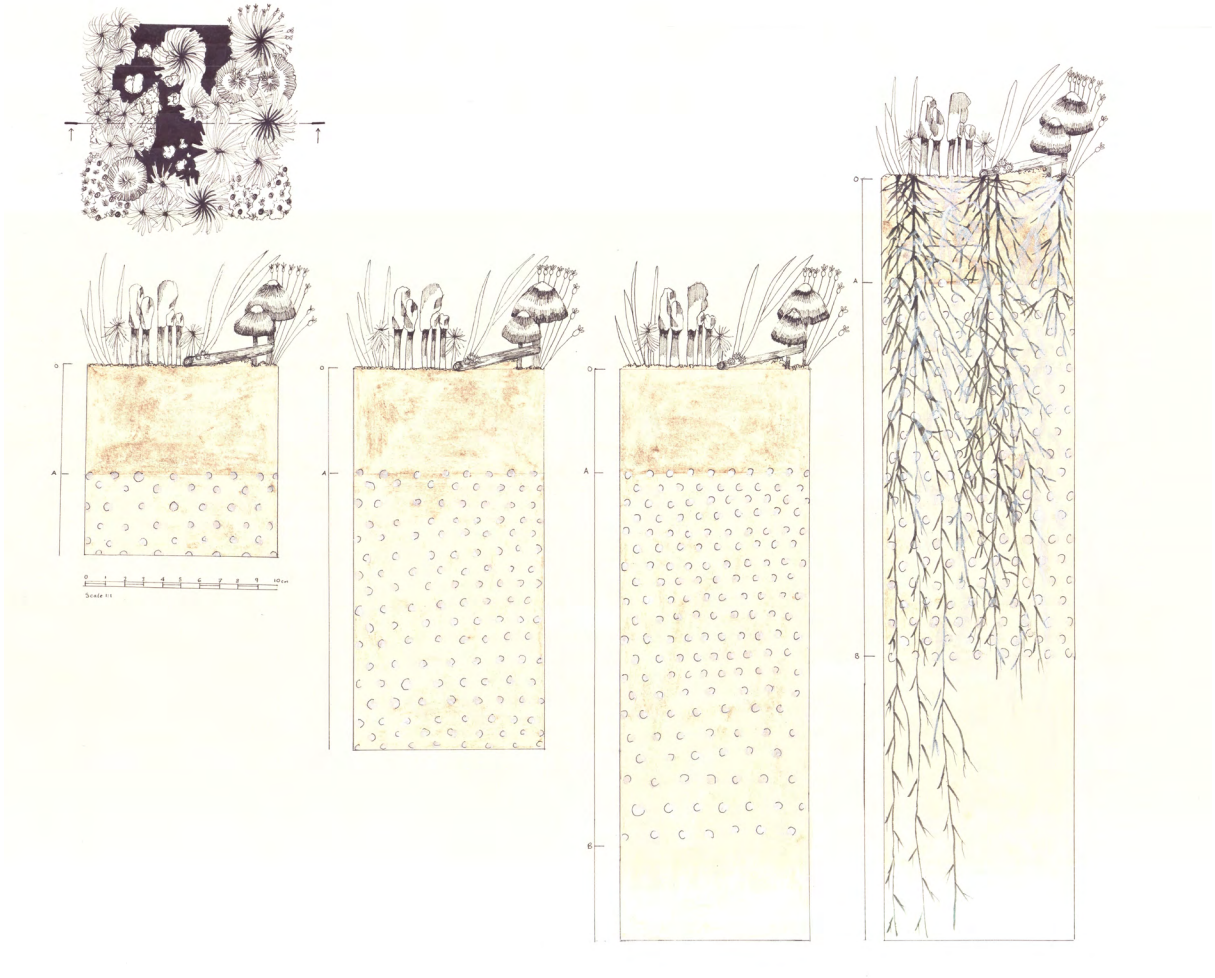

FIGURE 7

Soil depth analysis, what occurs within 40cm of soil? Alice Futter's project presents a counter proposal for The University of Edinburgh owned land at Drumbrae, near the city of Stirling. The current proposals set out a familiar ambition to offset carbon emissions and improve biodiversity by introducing woodland and improving open habitats (The University of Edinburgh, 2024). Alice Futter argues critical care and design consideration should instead be rooted in the soil as a living, connecting and life-giving medium. Fungi became a lens to inventory soil health across the Drumbrae estate, to deepen knowledge not only of individual species but of ecosystems and interdependencies between species. (Drawing by Futter, A. 2024)

FIGURE 8

Strategic habitat plan of the Drumbrae estate and detail. Working closely with soil samples and fungi species encountered during her fieldwork, Alice Futter developed soil inks and paints, cultured soil in a microscopy lab, and integrated spore prints into a strategic plan drawing to represent six different habitats, each with its own specific catalogue of fungi, plant, and animal species. Alice Futter's approach allowed material agencies to become apparent in the representational process. Within this work, she composed various scales relative to represent and gain the necessary proximity to understand each ecosystem in detail. Her material palette and curiosity led to complex imaginaries of the Drumbrae underworld. (Drawing by Futter, A. 2024)

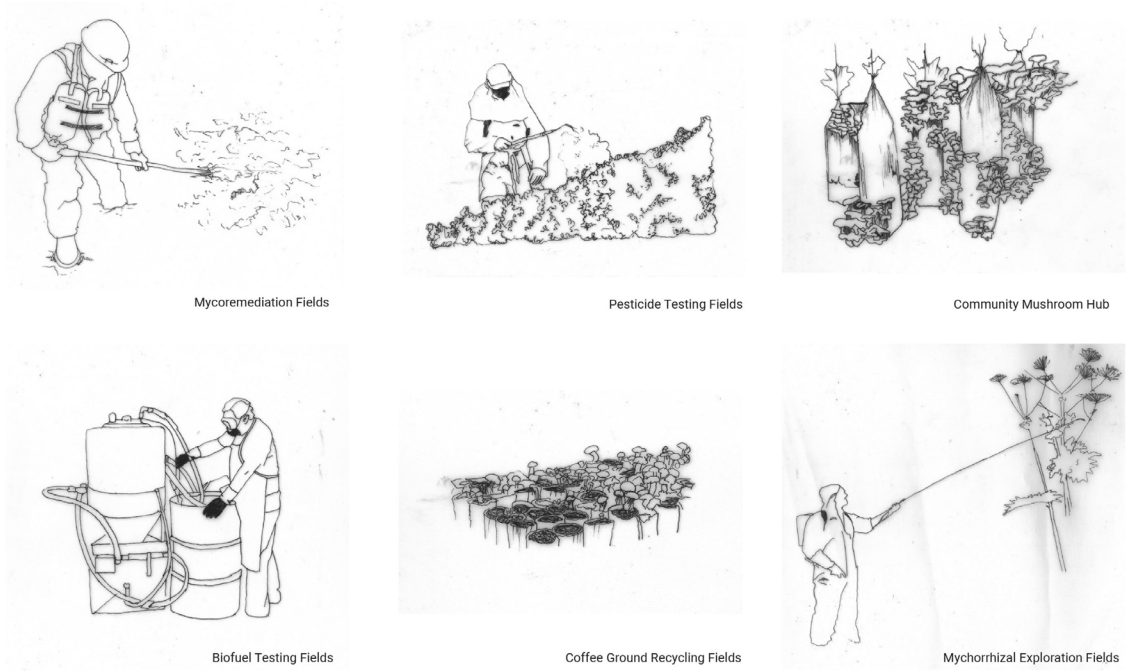

FIGURE 9

A site for soil exploration; Six interventions of disruption and innovation, devote attention to the underworld of the Drumbrae estate to deepen soil knowledge and exploration of land issues through critical care of soil, fungi and many other subsurface inhabitants. (Drawing by Futter, A. 2024)

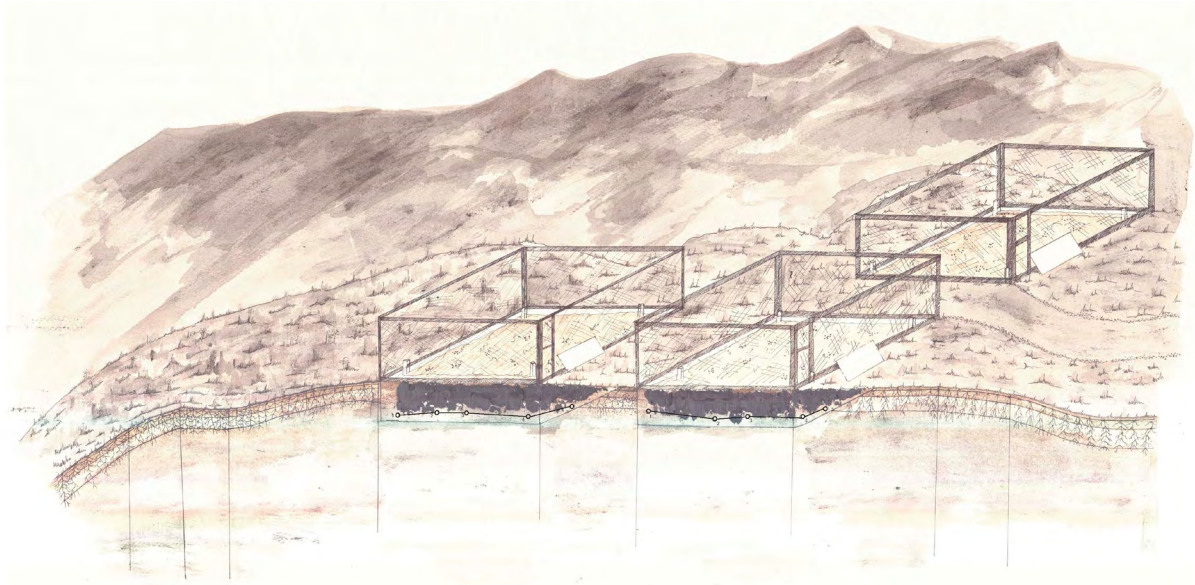

FIGURE 10

Mycoremediation fields. Through interventions such as mycoremediation testing fields, where staged oil spills would be remediated by particular species of fungus, such as the Oyster mushroom, the project advocates for radical shifts in focus: fungi and soils are brought to the foreground, ultimately instilling knowledge and awareness and, therefore, practices of care for those designing into and working with soils. (Drawing by Futter, A. 2024)

FIGURE 11

Critical Zones | Highland Boundary Fault Graduation Show. The process of thinking through the making of these interdimensional and attentive representations instils in designers, here students, a critical awareness of complex, more-than-human landscapes. However, the challenge lies in moving beyond theoretical explorations to actionable propositions. By exhibiting these works, we aim to provoke critical reflections on Scottish landscapes and embed 'ecologically explicit' (Morton, 2021) perspectives within the cultural consciousness of Landscape Architects and allied communities. Ultimately, these representations should serve as essential tools for interdisciplinary collaboration, enriching both professional practices and societal discourse on future landscapes. (Photograph by Rhodes, A. 2024)

Acknowledgments

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