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RESEARCH

Displaced Placemaking, Bioart, and Beyond-Human Communication

Elena Cirkovic*†

This article develops the concept of *displaced placemaking* as a theoretical and methodological framework for examining how individuals experiencing forced migration engage with environments through art-based practice and Earth–outer space perspectives. Drawing on observations and creative work at sites in northern and southern Finland, the study explores how experiences of spatial and cultural rupture shape human–environment relationships across multiple temporal and spatial scales. Rather than treating displacement solely as a condition of loss, the framework emphasises how observation, documentation, and engagement with more-than-human systems can generate new, non-assimilative forms of environmental connection.

Displaced placemaking draws from complexity theory, environmental humanities, and critical bioart practices to offer methods that are both materially accessible and conceptually responsive to structural exclusions. Through tools such as scalar analysis, temporal recalibration, and boundary identification, the approach situates localised environmental experience within broader planetary systems without assuming continuity, origin, or territorial fixity. The study contributes to scholarship on migration and environmental ethics by articulating practices of attention, co-creation, and situated accountability, while interrogating the boundaries of ecological knowledge production across disciplines and scales.

Keywords: displacement; placemaking; bioart; complex systems; environmental humanities; more-than-human; Earth-outer space systems

1. Introduction

This article examines how complex systems thinking and place-based artistic practices intersect in exploring beyond-human and beyond-planetary perspectives. It introduces *displaced placemaking* as a conceptual and methodological framework for understanding how forcibly displaced individuals engage with environments—including those imagined or perceived through Earth–outer space systems. The framework addresses gaps in conceptualisations of the relationship between displacement experiences and environmental engagement when considering the ethical dimensions of bioart and visual communication with non-human entities.

Displaced placemaking refers to a transdisciplinary approach grounded in both creative practice and theoretical reflection. It enables individuals who have experienced physical or cultural displacement to reimagine relationships to place, not only within local geographies but through broader planetary imaginaries. This concept acknowledges that human senses of place extend beyond immediate surroundings to include symbolic, imagined, and cosmological dimensions. Recontextualizing displacement within an Earth–outer space continuum makes it possible to understand spatial rupture not only in terms of loss but as a site for renewed connection. This perspective invites artistic practices to explore how displaced persons relate to more-than-human worlds—both terrestrial and planetary—through forms of engagement that recognise agency and interdependence across biotic and abiotic systems.

While some strands of bioart rely on advanced biotechnologies, other practices engage living systems through accessible, low-tech methods. In both cases, bioart entails a relationship with biological processes and living materials. Institutions like SymbioticA (Australia) and the Finnish Bioart Society have supported cross-disciplinary work at the intersection of art, science, and ecology. Within the context of displaced placemaking, bioart becomes one way to develop relationships with new environments—through observation, documentation, and artistic expression that takes seriously both human experiences and beyond-human agencies.

The article is structured in three parts. The first section, *Complex Systems: Earth–Outer Space vs. Imagined and Anthropocentric Localities*, sets the theoretical groundwork by examining how Earth and outer space function as interconnected systems, in contrast to place-based imaginaries shaped by ethnonationalism or cultural essentialism. Using Finnish forests as a case study, this section reflects on how displaced individuals encounter unfamiliar ecologies and interpret them through both symbolic and material practices.

* Law and Design, Aarhus University, DK
† Arts and Design, University of Lapland, FI
eem.cirkovic@gmail.com

The second section, *Displaced Placemaking and Bioartistic Practices*, considers ethical encounters between human and nonhuman systems, with a focus on how displaced persons engage the natural environments of their new geographies.

The final section, *Reimagining the Beyond Human: Sympoiesis and Beyond-Planetary Ethics*, draws on Beth Dempster's and Donna Haraway's notion of sympoiesis—systems of co-creation without fixed spatial or temporal boundaries. This framework supports a relational ethics attentive to asymmetries, power dynamics, and differing forms of cognition across biotic, abiotic, and beyond-human realms.

The article uses the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) definition of displacement as the forced movement of people from their locality or environment and occupational activities, often due to disaster, conflict, or development (OCHA 2004, p. 1). Earth System science defines the planet as an interactive network of physical, chemical, and biological processes—comprising atmosphere, hydrosphere, cryosphere, geosphere, and biosphere (Steffen et al. 2015). Placemaking is defined following the Project for Public Spaces as a collaborative process through which people shape public space, with attention to cultural, social, and ecological dimensions (Project for Public Spaces, 2007).

The methodology extends displaced placemaking as a flexible framework for analyzing human–environment relations through bioart, complex systems theory, and more-than-human engagement. Combining observational, participatory, and theoretical tools, the framework can be applied across disciplines such as migration studies, environmental education, and creative practice. Observations at Kilpisjärvi Biological Station and Seurasaari in Finland provided the environmental contexts for testing this approach. The methodological structure integrates art-based practice with systems thinking and environmental humanities, offering new ways to understand how displacement generates relationships with place that differ from those shaped by continuity or assumed belonging.

Three analytical tools structure the approach: scalar analysis, temporal recalibration, and boundary identification. Scalar analysis connects micro-level phenomena (such as local ecosystems) with macro-level systems (such as planetary cycles or astronomical events), enabling trans-scalar understanding. At Kilpisjärvi, this included simple fist-person observation, note-taking, photography, and drawing. **Figure 1** offers a visual interpretation of these methods.

Figure 1: "Untitled". Pencil and Ink on Paper. ©Elena Cirkovic 2024. All Rights Reserved.

Temporal recalibration juxtaposes human timeframes with geological and cosmic durations, helping reframe displacement not solely as a historical event but within broader temporal registers. At Seurasaari, this involved reading research on post-glacial rebound in relation to human settlement patterns. The method could be further expanded through artistic techniques that bring together scientific data, historical records, and observational drawing or photography to situate human experience within planetary timescales.

Practical implementation emphasises accessibility and adaptability. Recognising that displaced persons often lack access to laboratories or institutions, the methodology prioritises accessible documentation (e.g., drawing, photography), layered representation (blending observation with narrative), and site-specific engagement (tailoring practice to local environments). These techniques generate forms of situated knowledge that link local experience with larger Earth–space systems.

The approach proposes new ways of relating to place that may also be applicable beyond displacement contexts. It offers practical methods for engaging ecologies under conditions of dislocation—methods that do not instrumentalise personal histories or living systems but instead foreground reciprocal, situated practice.

This study addresses the challenge of translating subjective experience into replicable frameworks through documentation strategies that treat embodied, situated knowledge as data. This recognises that all environmental engagement is necessarily embodied and positioned. Environmental engagement remains possible across contexts—with a single plant, an urban park, the night sky, or damaged ecosystems. Even in constrained circumstances, individuals can develop environmental connections through observation and documentation. In situations with limited environmental access, alternative connections can form through mutual perception of environmental transformation from climate change, biodiversity loss, or conflict impacts.

2. Complex Systems: Earth–Outer Space vs. Imagined and Anthropocentric Localities

Complex systems science examines non-linearity and emergent behavior across a range of domains, including biology, ecology, economics, and the social sciences. These systems are characterised by networked interactions and outcomes that are often unpredictable, arising from the interactions of relatively simple components and rules. Giorgio Parisi's research, beginning in the late 1970s, significantly contributed to this field through work on spin glasses and disordered systems (Bradbury 2002; Bianconi et al. 2023), showing how fluctuations and disorder operate across multiple scales. Climate and sustainability research increasingly applies complex systems thinking to better understand interconnected planetary dynamics (Steffen et al. 2015). Bradbury (2002) notes that such frameworks can help identify connections and potential points of intervention that are often missed by linear models.

Displaced placemaking operates across two interconnected dimensions: the translation of placemaking within Earth–space complex systems, and the lived experience of displacement. When these layers intersect, placemaking can shift significantly. Recognizing Earth as part of outer space—rather than as distinct from it—opens a conceptual frame that is not shaped by exclusionary notions of "inside" and "outside." For displaced individuals, this more-than-planetary perspective can offer a way to locate themselves outside the confines of geopolitical boundaries. It brings into view geological and astronomical timescales that operate beyond political chronologies, enabling connections to place that are not anchored in cultural or national histories. In this view, displacement is not solely a condition of rupture or loss, but also a site for different modes of belonging, formed through scientific and artistic engagement with more-than-human processes.

Anna Tsing's *The Mushroom at the End of the World* (2015) explores human–nature relations through what she describes as the "arts of noticing"—a careful attention to multispecies entanglements in disturbed and precarious environments. Her ethnographic work documents how communities engage with matsutake mushroom forests amid conditions of economic instability. This article refers to her orientation by asking how displaced individuals engage with unfamiliar ecologies when conventional social belonging is disrupted by exclusion or discrimination. While Tsing's work often focuses on ecological degradation, this study turns toward alternative forms of perception that arise through the intersection of displacement and engagement with planetary and beyond-human systems.

Placemaking, originally developed in the 1960s as a response to top-down urban planning, emphasised participatory design, community needs, and human-scale environments. Jane Jacobs, in *The Death and Life of Great American Cities* (1961), highlighted the importance of mixed-use neighborhoods and street-level interaction, while William H. Whyte's *The Social Life of Small Urban Spaces* (1980) identified specific design factors that influence social behavior in public space. These foundational texts informed the evolution of placemaking as a participatory and relational concept, further developed by organizations like the Project for Public Spaces (2007).

Over time, the theoretical scope of placemaking has expanded well beyond its urban origins. Friedmann (2010) redefined it as a multidimensional process that integrates physical attributes with social relationships and cultural meanings. He calls for placemaking practices grounded in lived experience and local knowledge systems, including Indigenous epistemologies. More recent scholarship has extended the concept across regional and rural contexts, and even into planetary scales (Massey 2005; Cresswell 2015; Pierce et al. 2011), disrupting assumptions that place is inherently local or fixed.

This article proposes a further extension: planetary placemaking as informed by complex systems theory and the experiences of displacement. For those navigating

forced migration, such a reframing may offer alternatives to identity frameworks that rely on citizenship, national narratives, or cultural belonging. Earth–outer space systems, conceptualised as adaptive networks, provide a basis for connection that is not contingent on nation state-based recognition. Viewed through the lens of Earth systems science, placemaking becomes a practice situated in processes that exceed human temporality and political jurisdiction.

The Anthropocene, first introduced by Crutzen and Stoermer (2000), identifies human activity as a force capable of transforming planetary systems. While the term remains contested, it frames human impacts as both globally distributed and deeply entangled with geophysical processes. A complex systems approach highlights how even small-scale interactions may generate large-scale effects, helping to contextualise displacement not only within human history, but within broader planetary patterns. These frameworks inform displaced placemaking by supporting alternative modes of environmental connection that do not depend on dominant political or historical structures.

The visual images in this article function as both data and method, showing how theoretical frameworks are translated into artistic practice within specific environments.

Figure 2 overlays two geographically distinct sites to create a visual dialogue. The primary image is taken at the Kilpisjärvi Biological Station, while the smaller, layered image originates from the Adriatic coast. This composition was prompted by a conversation during a scientific event in which an audience member, after learning about the author's refugee background, remarked, "Your life was so interesting, I wish mine were just as interesting." The comment, offered in a context focused on natural sciences, foregrounded the discomfort of being asked to narrate personal trauma. In contrast, the rest of the engagement at Kilpisjärvi was focused on observing the soil, vegetation, and the work of scientists in the field.

This visual practice—layering different spatial references—functions as a method of displaced placemaking. It draws on artistic strategies that resist singular narratives or categorical identifications. Informed by Trinh T. Minh-ha's concept of the "inappropriate/d other" (1986), this approach creates visual work that resists fixed meaning. Techniques may include juxtaposing cultural symbols, mixing abstract and representational elements, or creating palimpsestic images that hold multiple readings. There is no prescribed format or medium.

Displaced placemaking also connects with artistic and scientific engagement with deep time and beyond-planetary systems. The recent book *Spectral Landscapes* (2024), for example, explores radiogenic materialities as both physical and cultural phenomena (Berger, Reinikka, O'Reilly, and Sederholm 2020). Geological time provides an alternative epistemic framework for relating to place—one that is not shaped by national narratives. The lithospheric and astronomical contexts of any site exist independently of human politics, allowing displaced individuals to relate to place through ongoing and universally shared processes.

Figure 2: Lake Kilpisjärvi. Layered photograph. ©Elena Cirkovic 2023. All Rights Reserved.

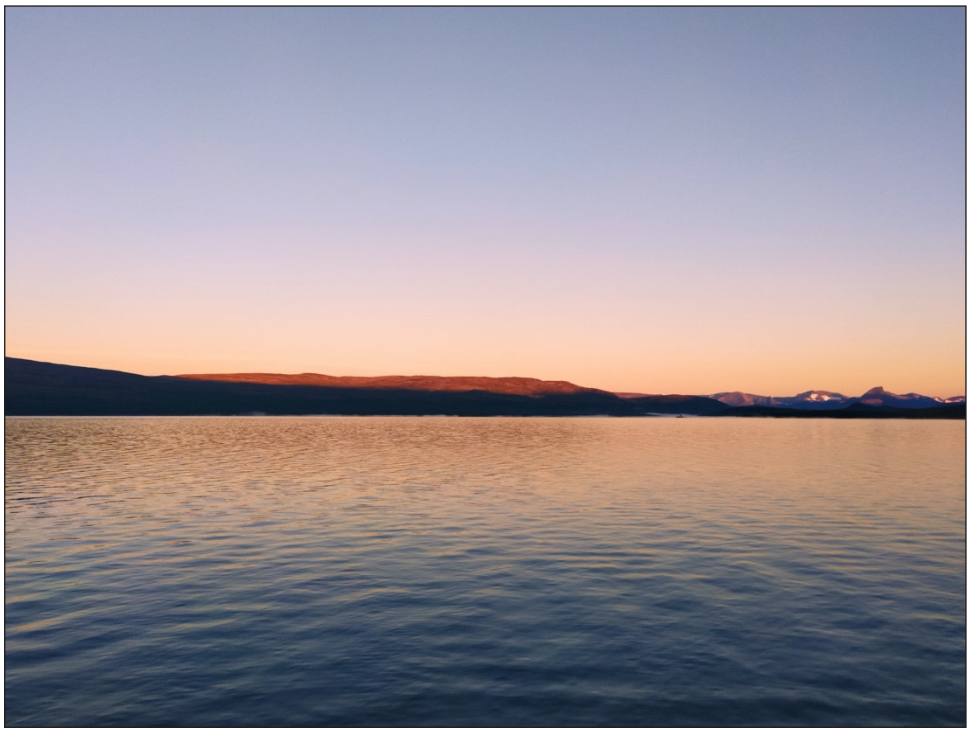

Figure 3: Lake Kilpisjärvi. ©Elena Cirkovic 2022. All Rights Reserved.

Figure 3 is a photograph of the Lake Kilpisjärvi. The lake offers an example of this multi-scalar temporality. Located within the Scandinavian Caledonides, the region is formed by overlapping tectonic histories: Caledonian nappes from 400–500 million years ago sit atop a Precambrian basement dating back 1.8–2.0 billion years. During the Weichselian glaciation (115,000–11,700 years ago), ice sheets shaped the basin now occupied by the lake. Since the final deglaciation, sediment accumulation has created a continuous archive of ecological and climatic data. The lake's transformation continues through post-glacial rebound, as the Earth's crust adjusts to the retreat of ancient ice. These layered temporalities can inform relationships with place that are not bound to short-term historical frameworks.

Artistic and scientific practices that attend to deep time and planetary phenomena allow for forms of placemaking that are not tethered to immediate historical trauma. The concept of "lithic thinking," a way of engaging geological materiality as temporally active and politically significant (Phillips 2021).

In this context, the displaced researcher may choose to focus on planetary-scale processes—tectonics, radiation, energetic flows—rather than on narrating personal experience for external consumption. As scholars such as Ahmed (2004), Pittaway (2010), and Sukarieh and Tannock (2019) have noted, displaced individuals are frequently expected to present their histories as accessible and emotionally legible content. Earth–space systems allow for a shift in focus. They offer a way to acknowledge trauma without centering it as the only valid form of engagement. Within this framework, displacement becomes not only a condition of exclusion but also a shared planetary state—one that opens possibilities for rethinking relationality across space and time.

2.1. Indigenous Knowledge and Placemaking

Observations at Kilpisjärvi Biological Station acknowledge these grounds as part of Sápmi, the traditional territories of the Sámi people, who have inhabited these northern regions for millennia, long before the establishment of current national borders. While Finland's constitution formally recognises the Sámi as an Indigenous people, Kuokkanen (2020) shows through legal and governance analysis how this recognition often remains limited to cultural domains, without extending to substantive authority over land and resources. In earlier work, Kuokkanen (2007, 2019) critiques this as "the politics of recognition," which can obscure structural inequalities in access, management, and epistemological legitimacy. She further highlights how Indigenous knowledge systems—despite their complexity and long-term ecological insight—are often marginalised within dominant environmental and academic frameworks.

Sámi ecological knowledge is based on long-term observation and interaction with Arctic ecosystems, including reindeer herding and seasonal changes, and draws from ontologies distinct from those of Western science. Research that engages with placemaking in Earth–outer space systems must account for multiple ways of knowing and histories of place. The Sámi peoples' longstanding situated relationship with Arctic landscapes offers insight into how place is constituted across various temporal, cultural, and material scales.

2.2. From Sápmi to Southern Finland: Competing Narratives of Place

Transitioning from Sápmi to southern Finland brings into focus competing spatial-temporal narratives and modes of belonging. The movement through different forest ecosystems—from northern boreal to southern mixed

forests—introduces displaced placemaking to dominant national narratives rooted in forest identity. Finland is Europe's most forested country by proportion, with approximately 22.8 million hectares of forest covering about 75% of its land area (Natural Resources Institute Finland 2022).

Finland's geology invites temporal perspectives beyond national narratives. The Fennoscandian Shield, which forms much of the country's bedrock, dates back 1.8 to 2.6 billion years (Bilker-Koivula et al. 2021). In addition, the country's dark skies enable astronomical observation, where light from distant stars predates human civilization. This cosmic temporality, combined with geological deep time, supports frameworks of place-connection that are not structured by national or political borders.

Seurasaari Island in Helsinki, home to an open-air museum of relocated traditional Finnish buildings, presents further temporal layering. Prior to its museal role, it served as both a recreational space and fishing ground, and geologically, it is part of a landmass still rising from post-glacial rebound. The land continues to uplift at 3–4 mm per year in Helsinki, a process more pronounced in northern Finland (Geological Survey of Finland 2023). For someone carrying the experience of displacement, this ongoing geological movement offers an alternative framework for relating to place—not as fixed heritage but as a site of dynamic transformation.

The juxtaposition between Finnish national identity and narratives of belonging resonates with Svetlana Boym's (2001) distinction between "restorative" and "reflective" nostalgia. The former seeks to reconstruct a perceived lost home, while the latter inhabits memory's ambivalences and discontinuities. Displaced placemaking draws on reflective nostalgia as a mode of critique, where identity, place, and memory are constantly renegotiated. Trinh T. Minh-ha's concept of "elsewhere within here" (2011) similarly articulates how displacement entails a multiplicity of spatial and temporal belongings, grounded in memory and situated knowledge.

Figure 4 combines drawing and dried botanical material—apple blossoms collected from a damaged tree. The birch (Betula), as a pioneer species in post-glacial recolonization, grows across Northern Europe and other temperate zones, establishing botanical links between otherwise distant landscapes.

2.3. Bioart and Displaced Placemaking

Art-based research practices can explore intersections of human, ecological, and technological systems without relying on specialised laboratories or extractive procedures. Rather than accepting terms like "bioart" at face value—a label some practitioners such as Oron Catts critique—this approach reflects on the assumptions and structures such classifications may reinforce.

Davis, Gan, and Haapoja (2020), in *Illuminating Multiplicity*, argue that laboratories often function as both materially white spaces and as epistemic sites shaped by dominant norms. They extend their critique to posthumanist theories that, while challenging anthropocentric binaries, may still obscure how these structures have enabled racialised and colonial violence. These concerns resonate with the experience of displacement, where geopolitical and conceptual

Figure 4: Birch Tree. Pencil, marker, foraged apple blossoms. ©Elena Cirkovic 2023. All Rights Reserved.

borders shape who is recognised, protected, or excluded. Within the Earth–space continuum, similar mechanisms persist across scales: from the border checkpoint to the categorization of "Earth" versus "space."

In a review of *Art as We Don't Know It*, La Frenais (2020) highlights the Bioart Society's deliberate challenge to classification, noting artists such as Bartaku, whose practice unfolds "in the folds and cracks" of disciplinary boundaries. This methodological openness aligns with the lived complexity of displacement. O'Reilly's performance work, described by La Frenais as involving humans, technologies, and divergent nonhumans, points toward epistemologies that resist separation between domains. These practices frame displacement not just as geographic dislocation but as ontological movement across conceptual systems.

2.4. Nostalgia and Belongings

Ecological art practices engage with memory, longing, and situated experience to trace how displacement is felt across time. Earth–outer space relationships, like nostalgic attachments, defy fixed categories and move through unstable material and symbolic registers. Forms of nostalgia—personal, cultural, collective—are embedded in specific places where ecological and social histories intersect.

National identity and environmental belonging raise critical questions: who is permitted to feel at home in landscapes imbued with nostalgic national symbolism? For example, can a displaced person feel at ease in a traditional Finnish wooden cottage embedded in national imagination? Conversely, can those who are deeply attached to forest heritage imagine that others might belong in the same landscape? Boym (2001) defines nostalgia as a longing for a home that no longer exists or may never have existed—a fantasy that can both conceal and reveal. Artistic practices offer ways to engage these questions without reducing them to binary oppositions.

Displaced placemaking engages reflective nostalgia not as sentiment but as method—one that holds fragmentation, disjunction, and ambiguity. It enables relational understandings of place that do not depend on resolution. Within this context, artists like Zarina Hashmi explore displacement as both rupture and orientation. Her minimalist works on paper trace borders and homes, rendering the political personal. As Zamindar (2018) notes, her depiction of partition lines becomes "the only line of possibility, of possible habitation."

Zarina's refusal to "move on" is not simply about resisting assimilation, but about articulating belonging that does not erase loss. This characterises displaced placemaking's broader orientation: to affirm memory as political; to frame borders as porous rather than final; to reject assimilationist time; and to recognise multi-sited attachment. Trinh T. Minh-ha's "inappropriate/d other" reappears here as a figure navigating contradictory forms of presence—always partially within and partially outside systems of recognition.

Figure 5 documents placemaking through direct engagement with birch forests, especially Betula pendula and Betula pubescens, which dominate Finnish forest ecosystems. These pioneer species are ecologically

Figure 5: Birch Trees. Watercolour, pencil and ink on paper. ©Elena Cirkovic 2023. All Rights Reserved.

significant for forest succession and biodiversity, and they represent one of the first post-glacial recolonisers of the region. This engagement with Betula extends beyond the Finnish context into a trans-regional botanical relationship.

Urban sites like Seurasaari foreground the accessibility of placemaking practices. Found object assemblages, for example, offer ways to work with ecological materials without institutional or technical requirements. Such practices allow exploration of human–environment relationships from positions of economic and infrastructural constraint. Following Lippard (1997), placemaking does not begin with inclusion into a predefined space, but rather with voice, perception, and encounter.

This process can extend toward a beyond-planetary perspective. The experience of displacement often fosters forms of relation that prioritise nonhuman companionship—a tree, for example, does not ask for identification papers. Yet this engagement is also constrained by national legal systems and imaginaries. Rather than invoking nature as an escape, displaced placemaking can draw on ecological knowledge systems, including Indigenous and local cosmologies, while acknowledging the ongoing structures of colonial complicity (Merivirta, Koivunen & Särkkä 2021). Cosmologies need not wait for permission to coexist.

Davis, Gan, and Haapoja (2020) further emphasise that bioart's whiteness must be addressed in relation to its institutional and material practices. The division between scientific technicity and so-called "Gaian" frameworks (Lenton & Latour 2018) reveals tensions: whether Earth systems are engaged romantically or colonially, the ontological assumptions require interrogation. Phrases such as the "taming of Gaia" risk re-inscribing colonial logics, even in attempts to honor non-Western ontologies. Ontology, as argued elsewhere (Cirkovic 2025), need not imply closure. Rather, it can be a space of plurality, contradiction, and negotiation.

Figures 6–9 remain intentionally ambiguous. Their function is not to elicit empathy or reveal private emotional content but to serve as a form of communication rooted in the observational processes described throughout this paper.

Bioart that engages with complexity often produces results described as sublime, magical, or even grotesque. However, aesthetic categories can obscure the processes and relationships at work. Tsing's (2015) attention to multispecies encounters challenges human-centered aesthetic judgment. Haraway's (2016) call to "stay with the trouble" refuses both apocalyptic despair and technological utopianism, favoring messy, relational modes of living. Myers (2015) offers the term "infolding" to describe how bioartists co-shape, and are shaped by, the materials they work with.

I ask how artists can engage with living systems on their own terms, or terms/outcomes of the specific encounter/relationship, rather than through predetermined aesthetic

Figure 6: Untitled. Watercolour and ink on paper. ©Elena Cirkovic 2022. All Rights Reserved.

Figure 7: Fairy Tale. ©Elena Cirkovic 2024. All Rights Reserved.

frameworks. The critical question emerging from these perspectives concerns the ethical foundations of bioart practice itself: can bioart truly engage with nonhuman systems without reproducing problematic forms of exploitation?

Sometimes bioart seeks transcendence through attempts to reproduce this complexity, relying on advanced arts and science techniques and technologies. However, this perspective needs to move beyond itself and perhaps attempt a self-reflection on: 1. Limitations of one's own disciplinary learnings ('what is it that I do not know') and 2. That these outcomes are not determined by human aesthetics, but by properties of complex systems and how they act in certain (human-created) conditions. There is also a need for a self-evaluation in the so-called communicating with beyond-human: what does it mean? If visual communication includes the beyond-human (e.g., if I use a piece of moss in my art, or manipulate micro-organisms, is this communication not inherently unjust and violent towards the biotic and abiotic component which I am using? Or, while a high-tech multimedia installation can seek to reproduce as well as create experiences, a forest itself is an immediate immersive experience).

Displaced placemaking does not treat nonhuman systems as metaphors or materials but as co-constructors of meaning. Displaced persons, often objectified within migration systems, have particular stakes in resisting exploitative artistic methods. This makes accessible, reciprocal practices not only preferable but ethically necessary. Place is not simply inhabited—it is made, with others, in conditions that exceed control.

3. Reimagining the Beyond Human: Sympoiesis and Beyond-planetary Ethics

Through engagement with Earth–outer space complex systems, displaced placemaking practices foster what Haraway (2016) calls "sympoietic" relationships—collaborative processes of "making-with" rather than imposing upon environments. These relationships connect microscale ecological observations with macroscale cosmic phenomena, allowing displaced individuals to engage in place-making that transcends national frameworks. Art-based research focused on environmental sustainability offers methods for navigating these layered relationships between human, nonhuman, and technological systems.

Sympoiesis contrasts with autopoiesis, which conceptualises systems as self-producing and bounded (Cirkovic 2025). Instead, sympoiesis assumes that systems are always collectively formed, with boundaries that are porous and contingent. This distinction is particularly relevant for displaced individuals whose disrupted histories challenge frameworks of belonging that rely on unbroken occupation or national continuity. Sympoietic practices instead enable alternative forms of attachment that acknowledge rupture while allowing new relations to emerge.

Temporal multiplicity is key to sympoiesis. In workshops with displaced participants, documentation of seasonal changes was paired with discussions about Earth's orbital rhythms, creating layered knowledge that linked immediate observations to planetary cycles. Such engagements allow belonging to arise not through ancestral claims, but through situated presence within dynamic Earth systems.

Figure 8: Fairy Tale. ©Elena Cirkovic 2025. All Rights Reserved.

A related exploration appears in Pietarinen and Qureshi's (2023) collaborative research on reindeer blood as a material practice. Their work engages with the multispecies, spatial, and cultural contexts of reindeer herding and slaughter in northern Finland, attending to how reindeer blood—often considered waste—can become a site of aesthetic, ethical, and affective inquiry. Rather than offering resolution, the project foregrounds the tensions and partialities that arise when working with embodied materials, especially in relation to coloniality, extractivism, and ecological responsibility.

This relationality echoes Barad's (2007) concept of "intra-action," where agency does not pre-exist the encounter but emerges through it. In displaced placemaking workshops, participants drawing geological forms began to shift how they perceived the landscape. Observation itself became transformative—not merely a method of documentation, but a practice of relation. This illustrates Barad's assertion that "matter is not a thing but a doing."

Sympoiesis challenges conservation models that cast humans as either outside or above nature. Instead, it understands all actors as co-constitutive within ecological processes. Practices that focus on microscale elements—soil, plant growth, microclimates—while attending to planetary dynamics can be understood through Barad's notion of "diffraction": producing difference through entangled relations, rather than mirroring existing categories.

Haraway's ethics of "response-ability" emphasises attentiveness to situated relationships, rather than adherence to abstract universal principles. In this study, participants cultivated such attentiveness through detailed environmental observation, producing what Tsing (2015) calls "polyphonic assemblages": arrangements in which multiple timescales and agencies coexist without requiring resolution. These assemblages enable new spatial and temporal orientations to emerge within unfamiliar environments.

Barad's understanding of response-ability complements the ethical concerns of beyond-planetary engagement developed here. Rather than assume a clear moral position toward a distant or generalised other, response-ability involves accountability to the specific entanglements one inhabits. Within displaced placemaking, such an approach opens space for examining how displacement, observation, and planetary change intersect—without reducing these relationships to a single ethical narrative. Diffractive patterns emerge when participants link everyday environmental experiences to planetary dynamics, not as metaphors, but as overlapping and relational phenomena.

Sympoiesis thus frames displaced placemaking as a relational practice involving human and more-than-human collaboration. Haraway's distinction between "making-with" and "making-about" offers an ethical basis for co-constructive engagement. This challenges bioethical paradigms that assume separability between

Figure 9: Untitled. Pencil on paper, layered photographs and foraged plants.

researcher and subject, or human and nonhuman. Beyond-planetary thinking extends this further by acknowledging how such relations unfold within and beyond terrestrial scales.

In a related discussion, Neimanis and Walker (2013) introduce the concept of "weathering bodies" to explore how humans experience climate change as a multi-scalar, lived phenomenon. Their articulation of "thick time" describes how environmental change accumulates within and through bodies—not only as spatial condition but as temporal sedimentation. Rather than positioning the body as symbolic or abstract, they argue for attending to the material ways in which climate entangles itself with everyday life. In the context of displaced placemaking, such a framework can offer ways to consider how embodied experience, memory, and ecological transformation intersect, without presuming a singular narrative of political or environmental inclusion. Belonging, in this reading, is not confined to political legibility alone but unfolds through shared material processes that exceed fixed territorial or cultural frames.

4. Conclusion

This study develops "displaced placemaking" as both a conceptual and methodological approach to understanding the intersections of forced migration, bioartistic practice, and Earth–outer space systems. Drawing on site-specific research at Kilpisjärvi Biological Station and Seurasaari, it suggests that displacement, typically framed as a condition of loss, can produce alternative ways of relating to place.

Scalar analysis, temporal recalibration, and boundary identification emerge as key analytical tools for engaging with environmental systems across different scales. These tools support ethical practices that attend to displacement's violence while also recognizing the possibility of forming new relations through observation and participation in ecological processes.

This research contributes to environmental humanities and migration studies in several ways. First, it offers a planetary perspective on belonging that does not depend on national narratives or ancestral continuity. Second, it shows that accessible art-based methods enable meaningful environmental engagement without the need for institutional infrastructure. Third, it proposes ethical modes of working with more-than-human systems that resist commodification and embrace co-creation.

Future work may extend these practices into educational settings or community programs that support refugee integration through environmental connection. It may also inform environmental policy, offering displaced individuals the opportunity to engage with place not through assimilation but through participatory ecological observation. By emphasizing reciprocal relationships, displaced placemaking reframes displacement as a space of potential—not only for survival, but for collaborative, planetary belonging.

Competing Interests

The author has no competing interests to declare.

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