

Socially-Engaged Design: From Care for the Environment to Pluriversal Politics

Associate Professor Katherine Moline, UNSW Arts, Design and Architecture
Chantelle Baistow, UNSW Arts, Design and Architecture

Abstract

Regenerating environments damaged by extractivist economies has preoccupied Euro-American designers since industrialization. Despite international efforts to shift to environmental sustainability, the forestry and mining industries continue to erode the natural environment. This paper reflects on two design strategies that inform our practices in environmental remediation through socially-engaged design. We propose that the speculative tales of what it will mean to live with polluted landscapes in *Toxicity Distributed* (2023) by AHORA presents productive insights for environmental care. We compare Ahora's strategy to the speculative socially-engaged research in design across three projects by Brave New Alps; the identification of collective models of labour in *Precarity Pilot* (2014-2018), the studio's interventions in social and environmental stewardship in *La Foresta* (2017-ongoing) and the internationally scaled consortium *Station for Transformation* (2024-2027). We analyse these approaches to speculative socially-engaged design through María Puig de la Bellacasa's matters of care and Arturo Escobar's pluriversal politics, broadening territories of design activism via creative interventions in eco-social degradation. We contend that engaging communities through more radical imaginaries increases the diversity of localised environmental design and pluralises the possible worlds to come.

Keywords: Speculative design; Socially Engaged Design, Design Activism, Eco-social Imaginaries, Environmental Stewardship.

Introduction

Extractive models of design continue to erode the imaginaries of biosocial communities. There are, however, a number of emergent trajectories on how designers can positively engage with communities to develop new economies centred in eco-social renewal for a richer diversity of possible futures. This paper examines the potential of speculative socially engaged design practices for eco-social renewal with diverse communities. We examine two approaches selected as exemplars of emergent speculative and socially engaged design

practices. AHORA's speculative tales of living in polluted landscapes in *Toxicity Distributed — Post-Extractivism Economies* prompts critical debate with communities impacted by environmental degradation. Alternatively, Brave New Alps employs speculative socially engaged design for activist stewardship with diverse communities in the *Precarity Project*, *La Foresta* and *Station for Transformation*. Our analysis of these approaches through María Puig de la Bellacasa's matters of care and Arturo Escobar's pluriversal politics is conducted in the differing contexts of the two case studies, AHORA's in a community affected by extractivism in Chile and Brave New Alps in Northern Italy with residents and asylum seekers. The case studies highlight speculative socially engaged design's role in developing relationships between communities and their environments. We contend that engaging communities through design practices in eco-social renewal radically pluralises possible worlds to come.

Toxicity Distributed: Post-Extractivism Economies

Toxicity Distributed was developed by design researchers Linda Schilling Cuellar and Claudio Astudillo Barra, practising as AHORA since 2020 in Santiago, Chile, and exhibited at ZKM in the *Driving the Human Festival, Berlin* (2021). Their early research on post-extractive economies titled *Extractopia* (2021), funded by the *Columbia GSAPP Incubator Prize: Climate, Health, & Cities*, collected recordings of landscape transformations from concerned citizens and developed environmental impact assessment records of the polluting effects of copper mining on locals and the environment (Columbia GSAPP, 2021). *Extractopia* focused on experimental research for change through eco-social renewal with local communities. AHORA, the community, and subject matter experts on bioplastics, marine biology, and ecology collaboratively speculated on the future of remediation for a green transition of the Coquimbo copper mine, anticipated to close in 2037 (Cuellar and Barra, 2021, p.128). Based on their analysis that three polluted locations: a copper tailings dam, a eucalyptus plantation and a desalination site (see Fig. 1) cannot be remediated within the locals' lifetimes, they worked with communities to imagine new ways to manage long-term toxicity now and into the future (Cuellar and Barra, 2021, p.128). Documentation of the communities' work resulted in an exhibition featuring speculative eco-social imaginaries, objects, and video essays, which explored how these sites may be remediated over time. To understand this community-centered approach to environmental remediation, the theoretical framework of ethics of care provides a valuable lens to analyse AHORA's work and its implications for transitions more broadly.

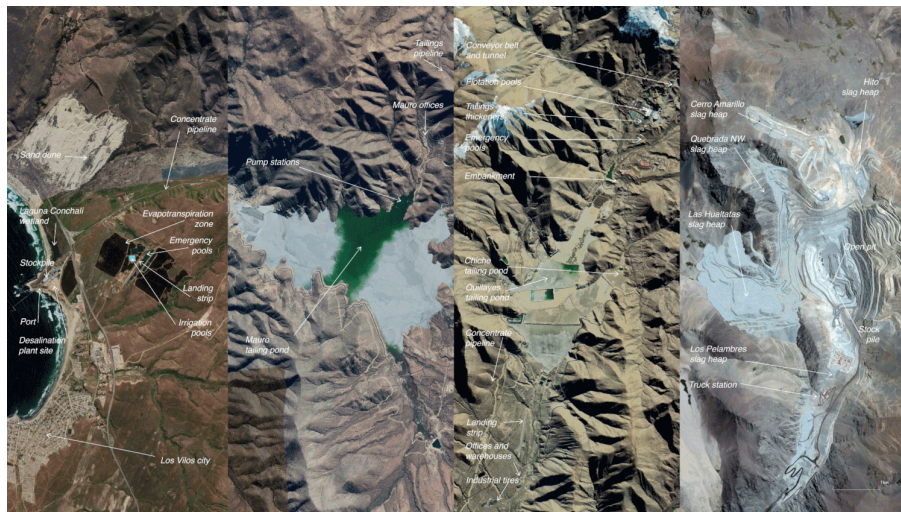


Figure 1: AHORA, *Toxicity Distributed – Post-Extractivism Economies* (2021-2022), Minera Los Pelambres operational areas. Image kindly provided by AHORA.

Initially established by Joan Tronto (1993), ethics of care has been defined as “everything that we do to sustain our world”, comprising our bodies, selves, and environment, interconnects these elements “in a complex, life-sustaining web” (Tronto, 1993, p. 103). Puig de la Bellacasa’s (2017) more recent definition, which we propose is significant for analysing *Toxicity Distributed* and understanding design for sustainability, defines *Matters of Care* as “all that we seek to interweave in a complex, life-sustaining web” (2017, p. 161). The evolution of theories of care derived from a branch of feminist ethics is a crucial framework for understanding environmental justice and grassroots political action, despite ongoing debates about its scope and effectiveness. Similar to prominent methods of anthropocentric design of the past fifty years, such as user-centred design and eco-design (such as life cycle analysis, biomimicry, cradle-to-cradle and circular economy), Puig de la Bellacasa has criticised Toronto’s ethics of care for an overly human-centred focus, a view with which we agree (2017, p. 4). Puig de la Bellacasa’s theory of care provides a holistic lens that extends beyond only human concerns, which we find valuable for rethinking the challenges of environmental degradation.

The theoretical foundations of care ethics extend to environmental justice through socially engaged design practices. Socially engaged design thus provides a local grassroots perspective by involving communities affected by environmental degradation in exploring the complexities of the pollution challenges they face. *Toxicity Distributed* exemplifies this approach as a socially engaged design project that brought together evidence from a breadth of fields, including environmental science and community knowledge, demonstrating care ethics in practice. Through participatory methods, the project demonstrates human geographers Chantal Carr and Chris Gibson’s emphasis on effective public participation as essential for achieving sustainable transition objectives in regional areas (Carr and Gibson, 2016, p. 297).

AHORA’s community-centred approach connected the project to broader frameworks of change. The concept of a Just Transition is described by political science researchers Dimitris Stevis and Romain Felli as a movement that pushes trade unions traditionally focused on

social justice to incorporate environmental or ecological justice within their remit (Stavis and Felli, 2015, pp. 31-32). While Carr and Gibson focus on immediate regional objectives, Puig de la Bellacasa argues that care encompasses maintenance and repair in “everything that is done ...to maintain, continue, and repair ‘the world’ so that all...can live in it as well as possible” (2017, p. 161). She draws on Haraway’s temporal approach to care and recommendation to “staying with the trouble” to expand possible approaches to complex environmental challenges through care (Haraway, 2016, cited in Puig de la Bellacasa, 2017, p. 194). AHORA demonstrates this expanded temporal vision in new future economies, which they describe as mapping the interconnected relationships between humans and non-humans to envision alternative modes of existing together (AHORA, para. 2). While organizations are increasingly elaborating their strategies for addressing environmental concerns, AHORA broadens their remit beyond traditional economic narratives of companies, such as profit, to transition narratives centred on care work.

The *Landscape of Proprietary Data* is an archive of environmental impact assessments submitted during the mine approvals since the early 2000s. The archive presents what AHORA determined to be an incomplete view of the mining companies’ neglect of the environment, communities and economies they rely on (Columbia GSAPP, 2021). The ledger records twenty-two projects developed by mining companies that hired consultants who prioritised business benefits over community well-being, despite references to nature-based solutions for bioremediation. Business-oriented solutions come at a substantial cost to humans and non-humans through economic loss, health issues and environmental degradation. After analysing the information in these ledgers, AHORA looked for experts to build a network of advisors to better inform where their research and background in architecture could contribute to addressing the issues (Columbia GSAPP 2021). The co-creation with the advisor-led collaboration led to AHORA rethinking how to represent the scale of the issues in size, pollution and time, which resulted in a timeline of future mine operations and remediations and infographics that establish new baselines with which to work (Cuellar and Barra, 2022b, p 58). AHORA’s mining data analysis reveals environmental degradation’s complexities and long-term implications that align with Puig de la Bellacasa’s perspective, emphasising interconnectedness as key to confronting these challenges.

Puig de la Bellacasa incorporates Haraway’s theory of staying with the trouble (2017, p.85) as necessary for conducting a care-centred political analysis of socially engaged design in post-extractive contexts. Staying with the trouble means understanding how care and responsibility intersect with environmental challenges, particularly in complex and contradictory systems. According to Haraway, the phrase represents not giving up in the face of imperfection, but instead looking at the interdependencies of the Earth’s “critters”, which is reflected in AHORA’s timeline for remediation (Haraway, 2016, p. 4). Haraway uses Australia’s Acacia trees as examples of interconnectedness and care (Haraway, 2016, p. 123). In our reading, she means that if we act independently, we end up with a house full of plants that rely on us rather than a self-sustaining forest of interconnectedness. On this basis, we frame the conception of speculative narratives for multispecies in *Toxicity Distributed* and AHORA’s approach to material legacies and political regulation in the exhibition *Driving the Human* to include temporal narratives of a historical, present and

prospective nature (Haraway, 2016, p. 115). “Staying with the trouble” adds a dimension of multiple temporalities and interdependencies to political matters of care (Haraway, 2016, p. 115).

Interconnected responsibility and the practical implications of a care and politics nexus in *Toxicity Distributed* addresses systemic neglect. Business-oriented approaches and institutional oversights documented in the ledgers revealed systemic neglect that would later inform AHORA's understanding of how care-centred politics could address the complex challenges in post-extractive landscapes. Care-centred politics is a type of grassroots politics where citizen participation forms the basis for policy improvements to create the conditions for new political projects to arise (Gottlieb, 2022, p. 15). Political care becomes important in post-extractive landscapes where institutional failures compound across multiple levels, resulting in inadequate policies, regulations, limited local government authority, and the prioritization of profit over people, the environment, and regional communities. *Toxicity Distributed* shows that care-centred politics combined with a socially engaged design approach can transform these contested spaces.

Our analysis situates creative practice within care-centred politics in response to debates on the scope and effectiveness of care frameworks. While care theory has contributed to understanding the societal importance of care work (Tronto, 1993), critics Angelika Fitz and Elke Krasny have argued that an ethics of care risks the depoliticization of important issues by focusing on domestic acts of care instead of systemic infrastructures (2019, p. 22).

Driving the Human Exhibition

The *Driving the Human* exhibition featured *Toxicity Distributed* as a culmination of research by AHORA, the community, and subject matter experts, collaboratively planning for a speculative green transition. By speculating on future jobs, they took samples from locations impacted by pollution and co-created eco-social narratives with residents to acclimatise communities for a post-extractive future. For example, “The new craftspeople and the non-forest” proposed a new role where “the tailings craftspeople” would attempt to encapsulate the toxins in a biopolymer using old seashells, sand, and dust from old mines. The biopolymer displayed in the exhibition, and the roles of craftspeople were featured in a speculative essay that described other new jobs that could be formed in future economies: the sprinklers (that spray the dust to prevent further contamination), plant nurses (to take care of the plants that store the toxins in their roots), tree liquidators, soil farmers and the propagators (Cuellar and Barra, 2022a, pp. 23-24).

One example of the speculative narratives AHORA developed demonstrates the new status the designers imagine for craftspeople in the post-mining future.

I hold in my hands objects modelled and created by a community knowledgeable in the crafts of the Diaguita people from the region of Coquimbo...These are objects made from sediment sourced from the old tailing pond Los Gladiadores. Unguarded tailings became the first material with which we could experiment. The valley winds covered our towns with particulate matter that increased our communities' prevalence of respiratory diseases. (Cuellar and Barra 2022a, p. 23)

Environmental communities built around remediation economies necessary after the mines close are significant for planning the health and well-being of diverse human and non-human communities in the coming years. Each narrative is exhibited on a table with a material sample of the pollution to be remediated. For example, Fig. 2 shows three featured eco-social imaginaries: “The sea gardeners and the encapsulated toxicity”, “The dust cloud and the people of the valley”, and “The new craft people and the non-forest” (Cuellar and Barra 2022a, p. 23).



Figure 2. AHORA, *Toxicity Distributed – Post-Extractivism Economies* (2021-2022), Driving The Human 2021 - Radialsystem Berlin © Camille Blake.

Such care-centred politics intervenes across interdependent systems, encompassing crucial remediation functions. Puig de la Bellacasa argues that care is inherently political, weaving together “ecologies and human-nonhuman entanglements” in a web of life that sustains and regenerates our realities (2017, p. 161). The mining operations in Coquimbo, Chile, illustrate these concerns, as their pollution continues to impact human and non-human communities across generations. This speculative project grounds itself in the intricate interweaving of living beings in world maintenance, bridging industry, craft, and waste management. By emphasising these connections, the project exemplifies a care-centred political framework that facilitates new political initiatives through social connections rather than top-down implementation. By situating eco-social imaginaries within new industry and craft practices, AHORA’s approach aligns with what design researchers Berilsu Tarcan, Ida Nilstad Pettersen, and Ferne Edwards describe as “contemporary reconceptualizations of craft in the Anthropocene,” calling for designers to incorporate more-than-human and decolonial approaches into craft practice (2023, p. 28).

Two Trees Talking (2022)

Eco-social speculative narratives feature throughout AHORA's research. For example, the video installation *Two Trees Talking* (2022) was developed in collaboration with urban design researcher Luciana Varkulja (see Figs. 3 and 4) for the 13th Sao Paulo Architecture Biennial. It explores interactions between native Ipê and plantation Eucalyptus trees established in an evapotranspiration zone around the tailings' dams (AHORA, 2022). The imaginary conversation speculates how the native and plantation trees might get to know each other. The imported tree is thirsty as it absorbs the toxic metals into its roots, trunks, stems and leaves, while the local tree shares that they are under threat of logging. The conversation between the two demonstrates curiosity and empathy. In the speculative economy, the job of tree liquidators was to come into the plantation, remediate the land and dispose of the toxic trees safely (Cuellar and Barra, 2022a, pp. 23-24). This is an example of "thinking through matters of care speculatively" that Puig de la Bellacasa describes (2017, p. 52). Exploring non-human narratives through *Two Trees Talking* demonstrates how care labour can extend beyond human perspectives to encompass broader ecological relationships.



Figure 3: AHORA, *Toxicity Distributed – Post-Extractivism Economies* (2021-2022), Video Essay Still. Image kindly provided by AHORA.



Figure 4: AHORA, *Toxicity Distributed – Post-Extractivism Economies* (2021-2022), Video Essay Still. Image kindly provided by AHORA.

Craftspeople's roles in future economies are significant when examining transition in mining-dependent economies like Australia and Chile. Material politics and care practices are integrated into the exhibition *Driving the Human* through physical examples. Despite the emergence of most transition analyses from mainly European contexts, *Toxicity Distributed* offers valuable insights from the Global South. Similarities can be seen between key challenges Australia and Chile share related to the effects of mining, energy generation, and waste. AHORA's work creates potentially viable pathways through what can seem like overwhelming catastrophes by imagining new care-focused labour within regenerative timeframes through narratives derived from speculative critical traditions in design to raise awareness. Puig de la Bellacasa's speculative approach to care's complexity resonates with *Toxicity Distributed's* exploration of new care practices in copper mining landscapes (2017, p. 204). The project reveals how transitions can disrupt and create new interdependencies, demonstrating how material politics shape relationships between environmental health and employment and industrial practices and community wellbeing.

Puig de la Bellacasa's introduction to the interconnectedness of human and non-human entities in maintaining the world has expanded to a growing body of literature that recognises non-human (Tsing, 2015), radical (Hobart and Kneese, 2020) and queer (Krasny, Lingg and Fritsch, 2019) care theories and practices in fields as wideranging as architecture and healthcare. Anthropologist Anna Lowenhaupt Tsing describes the critical focus of non-human care as being less concerned with unveiling human injustices and more focused on radicalising care through seeking strategies for mending, healing, and believing in "the possibility of life in capitalist ruins" (Tsing, 2020, p. 15). By challenging traditional boundaries of care and emphasising non-human participation, these approaches lay the groundwork for care-based approaches to socially engaged design. Envisioning viable futures for toxic landscapes created by copper mining and imagining what trees would say if they could talk are promising for a post-mining landscape that humans and non-humans can inhabit.

Brave New Alps

Expanding on Chantelle's account of AHORA's environmental remediation research in Chile, this section presents an overview of three interventions produced by the design collaboration Brave New Alps (hereafter BNA), founded by Bianca Elzenbaumer and Fabio Franz in 2005, and since 2012 located in the town of Trentino in Italy. We will connect BNA's *Precarity Pilot* (2014 – 2018), *La Foresta* (2017- ongoing), and *Station for Transformation* (2024-2027) as three platforms that provide alternatives to business-as-usual approaches to socially engaged design. We contend that these projects are illuminated when considered as action research in pluriversal politics, as described by design anthropologist and activist Arturo Escobar. For example, the correspondences between the fishing nets or *redes* Escobar has described are a touchstone for understanding the pluriverse as reflected in *Precarity Pilot* and *La Foresta* and his recommendations for six axes when considering transitions towards biosocial justice are resonant for *Station for Transformation*.

Through a heuristic, experimental and community-based approach that re-mixed speculative critical design with the realities of subsistence-level salaries, the platform *Precarity Pilot* (2014 – 2018) is an important reference point for our reflections on BNA's work. As a resource hub, *Precarity Pilot* provided guidelines and provocations for challenging the low levels of agency and security in design employment (*Precarity Pilot*, 2017). The *Pilot* demonstrated an awareness of the erosion of practitioner agency and creative autonomy that emerged in the design industries in the early 2010s. Their more recent project, *La Foresta* (2017-ongoing), applies socially engaged design principles in a Northern Italian town comprising residents and asylum seekers. Through a municipality-funded takeover of the existing infrastructure of a local train station, BNA have established, inhabited and sustained a hub for the local community. While Franz now manages the localist platform *La Foresta*, Elzenbaumer continues their exploration of design as action-research towards socially just transitions, and the imaginaries that surround them, at an international scale in *Station for Transformation*. From our perspectives as socially engaged artists and designers (see Moline, Mellick Lopes & Gill, 2025), BNA's vision of biosocial change opposes definitions of design as a form of control. Our exploration of BNA as practitioners of open design is explored in depth elsewhere (Moline, 2026, forthcoming). In this context, we discuss the key aspects of their work that offer a significant radical reimagining of the everyday through speculative socially engaged design.

Precarity Pilot (2014-2018)

As an online platform, *Precarity Pilot's* welcome page (Fig. 6) encapsulates the project's remit as a resource hub of essays, interviews, a glossary, and incisive resources for young designers. These resources include a section for redefining career models that includes critical provocations outlined in eleven *Tools* that range from "Tool #1: Examining role models" that suggests a series of provocation for reflecting critically on precedents for practice (*Precarity Pilot*, 2014a), "Tool #5: re-thinking the value of design processes and outputs" which outlines questions to ask about the social relations created in design projects (*Precarity Pilot*, 2014b), through to "Tool #11: design education and (prefigurative) work politics" that proffers strategies for understanding privilege through,

for example, requesting that guest lecturers declare their positionality concerning economies of practice to shift design education from its patriarchal and racist traditions (Precarity Pilot, 2017c).

Accompanied by a series of workshops that were developed with Caterina Giuliana across Europe, *Precarity Pilot* was dedicated to establishing an environment in which designers were no longer obligated to adhere to commercial imperatives (Elzenbaumer, 2013, p. 9). When they observed their peers' withdrawal from speculative critical practice, due to the pressures of making a living in market-driven design, they sought to establish a "viable" approach to socially and environmentally transformative design in an economy they correctly assessed as accelerated neoliberalism (Elzenbaumer, 2015a, p. 51). Critical of the contradictions of design education that promoted both design activism and entrepreneurialism, they conceptualised the desire to "radically restructure design labour" through their initiation of "a subversive career service" (2015a, p. 52). By unsettling the individualist career paths often promoted in design education they focussed on defamiliarizing the everyday, a strategy characteristic of speculative critical design, and suggested design could be rethought as "cooperative, reflexive, complex, entangled and critical" communal labour as found in community-based practices of commoning (2015a, pp. 54-56). In this way Brave New Alps's approach prioritizes collectivity as a necessary shift for managing adjustments to the competing demands of environmental and social uncertainty.

The career service *Precarity Pilot* provided realistic ways to earn a living that addressed BNA's ambition to create conditions for design that could respond to more radical social engagements they describe as "naturacultural justice and equality" (2015a, p. 53). As an acknowledgement of the entwinement of nature and culture, BNA grounded their project in the recommendation of political scientist Joan Tronto to reimagine a "shift from the ethics of competition to care" (2015a, p. 53).



Figure 6. Brave New Alps, *Precarity Pilot* (2014-2018). Image kindly provided by Brave New Alps.

The collaboration's move from critical design analysis to action research that, through care, addressed social and environmental injustices pursued multiple design approaches toward fairer, more sustainable, and more inclusive futures (Elzenbaumer, 2020, p. 97). This switch in emphasis drew from their insightful interpretation of the promotion of open design in the 3D printer MakerBot community as opportunistic. They observed that the peer-to-peer advice provided to corporations by organizations, such as the P2P Foundation, that operated with the slogan "Give a brick, get a house", promoted an extractivist sensibility that exploited consumer innovation for profit to garner surplus value that was created informally, as entertainment (Elzenbaumer, 2015b, p. 69).

In countering extractivist design with radical alternatives based on collectivism, they cultivated a localised design ethos. BNA's sharply critical ethos repoliticized design and created pathways that resisted the social imaginaries of design shaped by exploitative neoliberalism. This meant developing radically reimagined alternatives situated and explicitly shaped by the contexts and conditions in which they were produced. BNA's remodelling of design careers responded to the reduced welfare state, the intensification of work, discounting of employment rights, and minimal financial compensation and explored "new subjectivities" with which to develop practical biopolitical interventions. Their aim was to transform design, an industry that only precarized people (Elzenbaumer, 2015b, p. 65).

The propositions of pluriversal politics—defined as a multiplicity of worlds that exceed the constraints of capitalism, colonialism and patriarchy—is founded on positionality and relationality (Mills & Moline, 2024, p. 125). Arturo Escobar's discussions of the civilization transitions he deems conducive to a pluriverse is characterised as "a world where many worlds fit" that demands the reorientation of "mainstream, hetero-patriarchal capitalist, colonial, racist civilizational designs—mostly encoded in what we call today neoliberalglobalization" (Escobar, 2023, p. 45-46). Rebuilding knowledge relationally instead of competitively unsettles the dominance of Euro-American ways of being because of the radical inequality and messiness of connectedness, difference and collaborations between worlds. The pluriverse's significance for socially engaged designs, such as *Precarity Pilot*, is its radical inclusivity, an aspect of socially engaged design that BNA have explored in depth since they relocated the studio to Trentino (Escobar, 2020, p. 99) where they elaborated their approach to commoning and "the production of the common by designers" in *La Foresta* (Elzenbaumer, 2015b, p. 68).

La Foresta (2017- ongoing)

Brave New Alps's approach to open design in *La Foresta / The Forest* in Rovereto, Trentino, is described on their website as the *co-creation* of "a community academy" that functions as a "commons resource centre" (La Foresta, n.d. para 1). Since 2017, *La Foresta* has developed a heterogeneous socially inclusive network comprised of third sector entities, informal groups and local people that *La Foresta* describe as a community, because, in their words, "there is no common good without a community that takes care of it" (La Foresta, c.2021, para. 1) (Fig.7). In 2020 they formally constituted *La Foresta* as a legalised association co-financed by the Ministry of Labour and Social Policies and the Autonomous Province of Trento (La Foresta, 2023b). In 2021, the communal space of the Rovereto train station was inaugurated

for events such as the *Forge*, an assembly that governs the calendar of events at *La Foresta* and the everyday issues that arise in inclusive collectives. *La Foresta* orchestrates a wide array of events that celebrate food culture, organise environmental clean-ups and shared resources, such as the Eco-Solidarity wardrobe (La Foresta, c.2023a, para. 3). This program is based on their approach that meshes speculative socially engaged design and participatory action-research in which they act, pause and reflect and then iterate a subsequent action (La Foresta, c.2022, para. 15). Drawing on co-design and participatory design, *La Foresta* is a platform for environmental education, carpentry, horticulture, and social events, as well as workshops on the repair of digital devices. *La Foresta*'s communication strategy is concretely inclusive through the translations of their activities in a number of languages, including Italian, German, English, Spanish and Arabic.



Figure 7. Brave New Alps, *La Foresta* (2017-ongoing). Image kindly provided by Brave New Alps.

In the renewal of their approach to open design in 2020, they drew again from Puig de la Bellacasa to redirect their focus to envisioning a design practice shaped by the principles. Through considerations of socially situated interventions such as a revaluation of *repetition* they distinguished their practice from “the hit and run approach” they were exposed to most often in design education in recognition of the limited capacity of designers to “(co-)create other worlds with just one project” (2020, p. 98). Their politicization of a care-motivated practice in design was centred in the sharing of resources to ensure that “the surplus generated through the commons is shared fairly amongst people and earth-others” (Elzenbaumer, 2020, p. 99). In other words, all the living entities in the natural environment. As shown in Fig. 8, events at *La Foresta* promoted on Instagram are eclectic and in just one week ranged from practical health advice on the recommended frequency of breast checkups (7 Sept 2024), to local walks where participants could meet and discuss “dreams, perspectives, present and future ideas” with young people (8 Sept 2024), to a series of video game meetups, “offering a shared space where we can do together what we like to do alone” (8 Sept 2024), through to an evening of bands playing to commemorate a residency

by La Taola chefs residency (12 Sept 2024) (La.foresta.rovereto & Rovereto Pazzeska, 2024).



Figure 8. Events promoted on Instagram at la.foresta.rovereto, (2017-ongoing): Images kindly provided by Brave New Alps.

These Instagram posts show just some of the diverse communities that *La Foresta* engages with and recall Escobar's account of his modelling of the pluriverse on nets or *redes*, in Spanish, used for fishing that he became familiar with on the Pacific coast of Columbia, South America (2008; 2023). His descriptions of *redes* as "subtle", "mysterious and expansive" mirror the events at *La Foresta* (2023, p. 42). Noting resonances of heterogeneity between *redes* and rhizomes as both expand in "unplanned directions", he foregrounded that, unlike rhizomes, *redes* are part of First Nations' cosmological imaginaries that have existed over millennia (2023, p. 43). Escobar's interpretation of *redes* as connected to the Spanish word for weaving *tejer* and adjective *tejido*, which mean something that has been woven and "the tissues of the body", and are associated with the skills of "interlacing, weaving, and restructuring" provides an important framing for the collaborative design approaches of *La Foresta* (2023, p. 44). These word associations evocatively draw out the openness in pluriversal thinking to "caretaking, restoring, refashioning", "remaking", and "regenerating" rather than prolonging the destructive effects of extractionist neoliberalism (2023, p. 45).

Station for Transformation (2024-2027)

Funded by an European Urban Initiative (EUI) Innovation Grant, in 2024 BNA launched *Station for Transformation*, an elaboration of *La Foresta* that aims to open out a community resource as a "public-civic hub" for more capacious joint climate actions (European Urban Initiative, 2024, para. 1). The Station includes a Biodiversity Kiosk, a Climate and Biodiversity Co-creation Space, a Climate Canteen, a Climate and Biodiversity Community Space and a mobile unit for outreach, S4T on Wheels. At first glance, BNA's upscaling of their model for

revitalising abandoned and underutilized buildings for community use across Europe seems utopian (Alpine Community Economies Laboratory, 2023). However, when framed within Escobar's account of the pluriverse as a form of open design, *Station for Transformation's* acknowledgement of the history of the location of the Rovereto as an international train station on the border of Italy and Austria in a building that was initially fashioned in the style of rationalist Fascist architecture, and reconstructed after WW2 bombing, demonstrates the many aspects of *Station for Transformation* that not only correspond with how *redes* materially contain their historical use but also with Escobar's recommendations of six axes for transition.

Escobar proposed six guiding principles for societal transitions, grounded in interdependence and coexistence. He emphasized that these principles must be activated politically by communities that have moved beyond the short-term focus of neoliberal design (Escobar, 2021). The first principle, re-communalization, encourages local communities to develop strategies rooted in place, landscape, and cultural diversity—key concerns of *La Foresta* and *Station for Transformation*. The second, re-localization, calls for rebuilding everyday capabilities like food production, learning, healing, and housing, rather than relying on institutional services. *S4T* embodies this through workshops that strengthen local skills and self-sufficiency. The third axis, local autonomy, aligns with BNA's broader approach to capacity-building. Escobar frames autonomy as a political process shaped by human and ecological relationships, and as designing with the pluriverse to support dignified livelihoods. This vision resonates with the European Urban Initiative's view of *S4T* as a climate-adaptive hub within a wider European network (European Urban Initiative nd).

Escobar's fourth axis calls for the dismantling of social structures built on binaries, domination, and extraction. This includes decolonizing, de-patriarchalizing, and de-racializing social relations. *S4T* supports this by fostering inclusive participation and celebrating diversity across its programs. The fifth axis emphasizes reconnecting with the Earth, drawing on Latin American feminist thought to rebuild social relations and heal from systems of oppression. Like *La Foresta*, *S4T* continues to support asylum seekers with openness and informality, recognizing their contributions to local regeneration. Inspired by Indigenous perspectives from Colombia, Escobar also stresses the need to liberate nature and reimagine cities, economies, and societies in harmony with the planet. The sixth axis promotes cooperation in diverse, locally rooted communities that operate independently of global consumer markets. *S4T's* focus on local food production reflects this commitment to autonomy and ecological resilience.

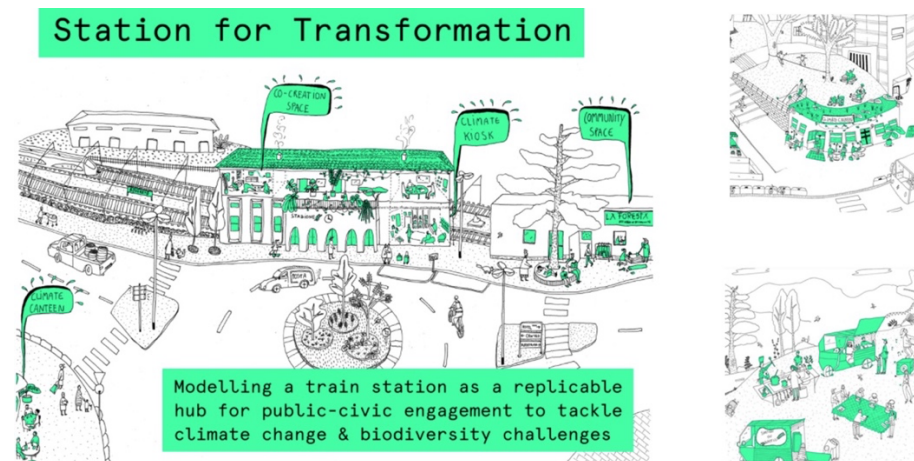


Figure 9. Brave New Alps and La Foresta, *Station for Transformation* (2023-2027). Images kindly provided by Brave New Alps and & La Foresta.

In conclusion, the platforms produced by BNA discussed here, *Precarity Pilot*, *La Foresta* and *Station for Transformation* operate among a raft of organizations and artist initiatives or *redes* centred in critical action-research. For example, they are connected through social media to groups including Guerrilla Foundation, Berlin, and Company Drinks, London. Each of these groups proffer alternatives to neoliberal models of design and creative arts. For example, the Guerrilla Foundation's 2023 Annual Report identifies the foundation as a "resource redistribution movement" engaged in power-bending, which they define as the "repositioning of power via the distribution of capital, be it financial, social or creative" (Guerrilla Foundation, 2023, p. 4). The Centre for Plausible Economies, initiated by Company Drinks (Kathrin Böhm and Kuba Szreda) in 2018, sought to demystify the art world according to J.K. Gibson-Graham's modelling of the economy as an iceberg that is supported by a vast array of unwaged labour that, although submerged and out of sight, props up an elite. As these groups attest, as do many of the networks connected to Brave New Alps through *Precarity Pilot*, *La Foresta*, and *Station for Transformation*, the social coding of the neoliberal economy is untenable for sustainable livelihoods and ecologies.

What distinguishes Brave New Alps for us is their consistent long-term vision and practice, which has grown organically from sustained direct action. While many groups I've mentioned above share similar characteristics, BNA epitomises a significant node for emergent open approaches to dealing with uncertainty through speculative socially engaged design based on local and sustained strategies for pluriversality over time. While we question their wide-ranging selections of theory that at times seem to overcomplicate their approach, at the same time, we appreciate their framing of design as a cultural practice that embraces philosophy and politics. Escobar's discussion of the pluriverse in relation to *redes* and axes helps us to understand their theoretical landscape, focussing on their sustained and long-term commitment to opposing definitions of design as a form of control.

Concluding Discussion - Broadening Design Activism for Possible Worlds to Come

This paper explored how speculative socially engaged design practices can create opportunities for eco-social renewal within communities. It emphasises diverse approaches to the mitigation of the adverse effects resulting from extractive design models. Together, these case studies provide important insights into alternative approaches to developing speculative and socially-engaged economies. AHORA's speculative research on post-extractivist landscapes takes a radical care approach. It highlights the compounding impacts of institutional failures: policy neglect, profit over people and the environment, and regional communities. In contrast, Brave New Alps elaborates the speculative critical design they encountered in their university education, reframing it as speculative socially engaged design meshed with action research. In other words, AHORA and Brave New Alps draw on speculative critical design for the creation of sustainable futures with their communities centred in the biosocial imaginaries of their locations, Chile and Northern Italy. AHORA and Brave New Alps engage with matters of care and pluraliversal politics, but in different ways; AHORA's speculative narratives envision post-extractivist economies while Brave New Alps draw together socially cohesive communities to create a shared future in the present.

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Author Biographies:

Associate Professor Katherine Moline researches the dynamics between technology and society. Their research is exhibited at the NFHRI (2024-2025), published in the journals *International Journal of Transgender Health* (2025) and *Design for Health* (2023) and the anthology *Dark Eden: Transdisciplinary Imaging at the Intersections of Art, Science and Culture* (Melbourne University, 2022). Their innovations in research methodologies have been documented in *SAGE Research Methods Online* (2022) and *The Routledge Companion to Digital Ethnography* (2017). They are currently finalising the monograph *The Radical Imaginaries of Socially Engaged Design* for Bloomsbury (2026).

Chantelle Baistow is an Associate Lecturer and PhD candidate in UNSW Arts, Design and Architecture. Their research focuses on socially-engaged design through critical digital craft. Chantelle facilitates workshops to explore local discourse on environmental concerns at the Country Women's Association (2018), Sydney Design Week (2019) and the Booragul Landcare Sustainability Centre (2023-24).