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## Unlearning Unsustainability in Design Education

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## Unlearning Unsustainability: A letter to Design Educators on Sustainability Delay

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**Abstract:** The climate and ecological emergencies present a crisis for all global communities. This moment reveals both resistances to accepting the need for fundamental change – alongside opportunities for, and challenges to, new ways of living. The authors call on the design education community to reflect on how design education is responding to ecological crises. Sustainability scholars have long described the crucial role of education as a facilitator of sustainable change. We argue that educational institutions, like many formal institutions today, have aimed to address contemporary concerns by adding sustainability ideals to existing ways of working, resulting in ineffective sustainability outcomes – and delays to delivering learning and action that support sustainable transitions. We propose the meaningful adoption of design for sustainability requires the unlearning of unsustainability and its associated structures, processes, and outcomes, to rebuild a discipline able to meet the challenges that ecological crises bring.

**Keywords:** *design for sustainability; unlearning; unsustainability; disciplinary fragility; regenerative design*

### Introduction

In a “final warning” issued by global climate scientists, the IPCC issued its last assessment “while the world still has a chance of limiting global temperature rises to 1.5C above pre-industrial levels” (IPCC, 2023). The UN Secretary General António Guterres described the report as “a clarion call to massively fast-track climate efforts by every country and every sector and on every timeframe” (Guterres, 2023). Meanwhile, sustainable design theorist Stuart Walker’s recent text “Design is Lost” starts with the UN latest Emissions Gap Report finding “that the international community is falling far short of its commitments, that there is no credible pathway to 1.5 °C” (Walker, 2023, 2) and the UN’s call for a “rapid transformation of societies” (UNEP, 2022, title). With appropriate knowledge and practices, designers can help facilitate these energy and sustainability transitions. What is also clear is that students today will not inherit the relative ecological stability most older readers have enjoyed in our lifetimes.

In this letter we focus on dynamics that cause delays in design for sustainability (Dfs) education. Despite awareness of the role design has in propelling ecological crises described over 50 years ago (Packard, 1960, Papanek, 1971), the design community has been party to a failure to act at a sufficient scale. While some design schools are working to



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enable high quality DfS education, design education has yet to effectively mobilise its various institutions to challenge and respond to the reproduction of unsustainable design practices – including planned obsolescence, excessive waste, accelerating GHG emissions, etc. Unsustainability remains the norm. We propose that unlearning unsustainable norms is a foundation for the ecologically regenerative transitions that are urgently needed. Unlearning unsustainability is not currently happening at an appropriate scale in design and design education due, in part, to the dynamics of sustainability delay described below.

Design education and industry activity continue to respond to market opportunity, prioritising economic growth and associated values, with inadequate systemic insight and direction to address the ecological consequences of normative design practices. In other words, design education appears to mirror its context rather than delivering the knowledge and agency to challenge it. Where design practice engages with sustainability, it is all too often concerned with making what is already unsustainable a little bit better (e.g., furnishing a diesel-powered car with recycled plastic bottle seat materials). While recycled plastic seats can reduce the environmental impact of resources, a systemic vision is lacking. We note a continuum in progress towards DfS starting with no action on one end (with no or even a negative contribution to sustainability); to weak sustainability (DfS practices engaged but within normative paradigm); to strong sustainability - regenerative design (DfS addressing systemic ecological-social change).

In education, a performative approach to sustainability is academic greenwashing. Greenwashing is well known in corporate practice as a means of perpetuating poor environmental practices and increasingly under scrutiny by environmental organisations (Willis, 2023) and governments (Romano, 2023). It is a less well recognised activity in the contexts of education, and design education in particular – as a field whose logic is so often closely aligned with conspicuous consumption and other capitalist priorities. Here, in its most basic formulation, critical thinking can be reduced to design decisions within the parameters of market priorities, such as choosing the right target market. Greenwashing in an education context is perpetuated by what sociologist Lindsey McGoey describes as strategic ignorance; where “ignorance serves as a productive asset” (2012, 1). Strategic ignorance enables an avoidance of the challenges presented by social and environmental concerns where ecological and sustainable knowledge is either dismissed entirely or delivered in a piecemeal fashion with inadequate integration into disciplinary practices, theories, norms and priorities. The outcome is the reproduction of design practices that contribute to unsustainable norms, pollute the planet, and destabilise planetary boundaries.

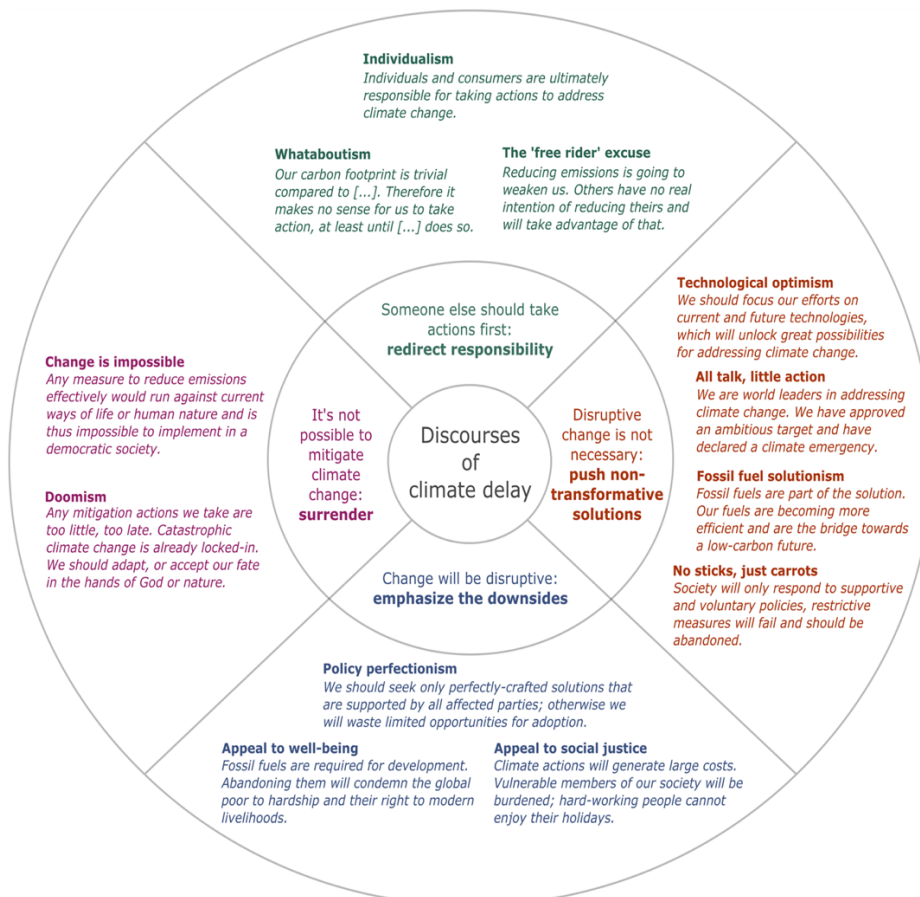


Figure 1. A typology of climate delay discourses (Lamb et al., 2020).

## Sustainability Delay

Educators working in design for sustainability face similar obstacles as science communicators working in public conversation on climate change. In public discourses, alongside traditional strategies of outright denial (Farrell et al., 2019), climate-impact scepticism (Harvey et al., 2018), and *ad hominem* attacks (Oreskes & Conway, 2011), a newer strategy of “climate delay” has been identified – as illustrated in Figure One (Lamb et al., 2020). Climate delay refers to a “deadlock or a sense that there are intractable obstacles to taking action” (*Ibid.*, 2020, 1). Climate delay is maintained by four dominant discourses: 1) redirecting responsibility; 2) pushing non-transformative solutions; 3) emphasising the downsides of climate action; and finally, 4) surrender – as if it is impossible to mitigate climate change (Lamb et al., 2020). The strategies illustrated in *A typology of climate delay discourses* (figure 1) obstruct progress in accepting and responding to climate change.

The climate delay framework mirrors the challenges we face as sustainable design educators. This model provides a good starting point for a theory of delay in DfS. In design programmes where sustainability education is still marginal or superficial, but outright denial or scepticism of climate change is no longer socially acceptable, discourses like climate delay are often evident. We propose that unsustainability is further reproduced with strategies of **sustainability delay** specific to the design education context. These strategies include superficial sustainability; appropriation and misuse; and disciplinary fragility. Each of these have numerous manifestations and specific tactics as illustrated in the diagram *Sustainability Delay: A Typology of Unsustainability in Design Education* (figure 2).

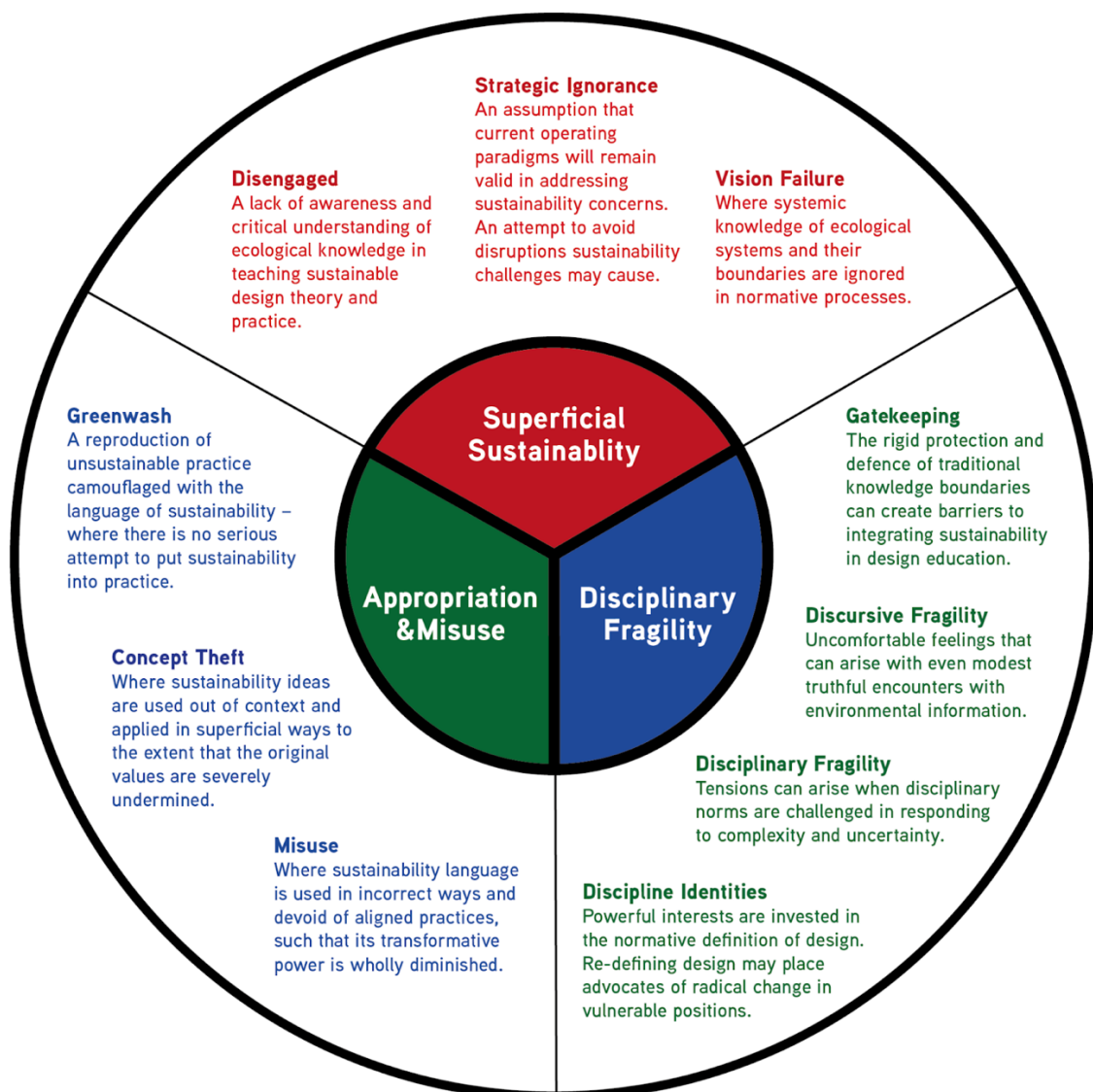


Figure 2. Sustainability Delay: A Typology of Unsustainability in Design Education

### Superficial Sustainability

Superficial sustainability offers non-transformative false solutions that distract from the work that needs to be done to address environmental goals. These approaches can sometimes “reduce unsustainability” (Ehrenfeld, 2005) but they fail to instigate the deeper changes that are needed. They manifest in places where institutional leadership is disengaged from eco-social concerns, practises strategic ignorance, and are unable or unwilling to envision change aligned with an understanding of ecological systems and their boundaries. This version of weak sustainability arises as a result of education that has been driven by transactional and economic value in isolation of wider value systems. This work is an outcome of, and reflection on, education systems that have failed to interrogate knowledge, skills, and practices that reproduce unsustainability. Reducing unsustainability includes applying environmental damage reduction strategies but without a systemic frame to see limits of such strategies (e.g., increasing product efficiency yet increasing product consumption does not reduce total environmental impacts; or using recyclable material doesn't equal effective cyclical resource flow and may result in linear flows of high-value resources). The lack of systemic frames diminishes the potential for effective design transitions to sustainability.

Moving from traditional design education to design education for sustainability is a challenge for many design schools. All too often there are underpinning assumptions that ecological knowledge is not necessary. Here traditional approaches are reproduced with superficial references to green ideas and just transitions. A lack of leadership in this area reduces commitments to sustainable practice and resources needed for the development and delivery of sustainable content. In these circumstances, normative design education reproduces no learning or weak sustainability by default, consolidating existing unsustainable norms. Superficial sustainability avoids the necessary deeper challenge to the cultural structures that support the reproduction of unsustainable norms. Within neoliberal institutions, bureaucratic rationality and instrumental management practices marginalise ecological values, disabling sustainable education (Sutoris, 2022) by disempowering educators. Modes of governance enable or disable sustainable transitions in design by establishing institutional priorities (Boehnert 2018, 38-48). Disrupting the trajectory of unsustainability depends on deep reaching engagement with ecological hybrid knowledge, critical social theory, and the sustainability sciences – along with commitments to embed critical ecological knowledge in practice.

### Appropriation and Misuse

The appropriation of sustainability language and concepts has a variety of negative impacts in design. Appropriation in a sustainability design education context occurs where ideas and practices developed to change material conditions are extracted from their originating context and decontextualized – or even re-defined – by those with only a shallow engagement with the ideas and practices that make sustainable and equitable transitions possible. Processes of greenwashing, concept theft, and misuse are types of appropriation that rinse ideas and practices of their transformative potential. Appropriation disables learning and potential innovations that could support transformative changes by hijacking the language of sustainability without commitments to understand, much less enact, necessary changes associated with design for sustainable transitions. An example of concept theft and misuse is where senior academic leaders use progressive ideas as statements of intent or vision statements with no or insufficient attempts and resources devoted to putting these ideas into practice. The appropriation of the language of responsibility, justice, and sustainability devalues the work of scholars and activists developing concepts and leading these activities and movements.

Appropriation is also a problem in decolonising discourses which can be distorted by those with superficial engagement. This appropriation neutralises and even destroys the work of decolonising scholars by applying incorrect interpretations to their concepts, often reproducing the very norms that the concepts were coined to critique and transform. Some responses to appropriation are the practice of positioning statements (Noel, 2022; Motti Ader, Taylor, Storni, Noel, 2023) and the focus of collective emancipation (Barendregt, Bendor & Van Eekelen, 2023). In *Pollution is Colonialism*, Max Liborion explains: “Acknowledging where you do not belong while remaining aligned with those who do seems to be one of the more difficult lessons of allyship” (2021, 24). This call to avoid appropriating the work of indigenous scholars emphasises the need for careful and respectful engagement. Liborion’s monograph illustrates these values with detailed footnotes acknowledging the indigenous intellectual traditions they cite. Appropriation is often a result of institutional power dynamics where traditionally empowered genders and races occupy senior positions resulting in power imbalances that exclude the viewpoints of other groups. Appropriation

allows institutions to avoid the disruption to traditional power hierarchies associated with justice-oriented sustainability theories and practices.

### **Disciplinary Fragility**

Disciplinary fragility refers to tensions that arise when disciplinary norms and boundaries are challenged and expanded in response to the complexity and uncertainty of contemporary eco-social challenges – and the need to create more inclusive types of knowledge. This resistance can take the form of hostility directed toward individuals. The term was coined by geographers James Esson and Angela Last to refer to challenges faced by geographers dealing with anti-racism content (2020). We use the term to refer to aggression towards proponents of sustainable transitions with ecological content (Boehnert, Dewberry, Sinclair 2022, 15-16). Ecological and sustainability learning can present fundamental challenges in traditional norms in design and design education and can interrupt what is seen as “good design” in ways that also disrupt power hierarchies in institutions. The problem of disciplinary fragility links intersectionality, EDI, and decolonisation to decarbonisation and the wider ecological crisis. If a sustainability advocate is a marginalised identity in a non-diverse space, standard sexist and racist tactics for dismissing or even attacking them can be employed. Tragically, *ad hominem* attacks are one of many mechanisms of sustainability delay.

Building on the concepts of disciplinary fragility, we identify gatekeeping, disciplinary identities, and discursive fragility as forms of tensions that contribute to sustainability delay. Gatekeeping is the rigid protection and defence of traditional knowledge boundaries, creating barriers to integrating sustainable design education. Sustainable transitions call for a re-revision of what constitutes “good design.” Discipline identities can be threatened by a redirection and redefinition of design, as it presents a challenge for those who are currently at the top of the pyramid – leaving advocates of change in vulnerable positions. Discursive fragility refers to uncomfortable feelings that arise with even modest truthful encounters with environmental information. Talking about the ecological crises and appropriate changes on a scale that could enable sustainable transitions can be psychologically difficult and provoke a wide range of strong responses from eco-anxiety (Pihkala, 2020; Albrecht, 2012) to defensive strategies of denial and disciplinary fragility. For some people, especially people with more social privilege, the environmental crisis presents a threat to identity on multiple levels (Crompton 2010; Kahan 2010). On one level there is guilt associated with our complicity in unsustainable ways of living. This exists alongside feelings of helplessness associated with a lack of knowledge on issues of sustainability characterised by complexity.

### **Unlearning Unsustainability**

Despite these challenges, some design schools are shifting institutional priorities. Unlearning unsustainability is a foundational process for DfS in a regenerative paradigm. Design for sustainability requires systemic awareness of ecological and social impacts alongside understanding of design strategies for regenerative alternatives. We define “unsustainability” as the reproduction of current systems consisting of both extractive and much of what is presented as “sustaining” approaches. We put sustaining in quotes because, due to already destabilised planetary boundaries (Steffen *et al.* 2018; Richardson *et al.* 2023), weak sustainability will not sustain the current system. Current extractive design economies focus on improving efficiency and productivity to extract more value, where human and planetary health are sacrificed for economic prosperity for a few. The sustainable development paradigm seeks to do less harm to improve productivity over time (Jackson 2009, Daly 2007) and offers a refined continuation of the current fragmented, inconsistent, and partial approach. Where it explicitly seeks to enable the reproduction of the current system, a system currently in polycrisis (Tooze 2022), it is insufficient.

Sustainable development has been critiqued as an imperfect formulation of ecological transitions since it was first conceived in the early 1980s (Orton 1989, Daly 1995, Sachs 1999). RSA’s Joanna Choukeir has recently published a framework called “A Vitality Scale in Regeneration” (2023) that integrates this critique of the sustainability discourse into a theory of levels of ecologically transformative design. The framework distinguishes progressive levels of commitment to regenerative and ecologically sustainable design, explicitly building on the work of Daniel Christian Wahl, Bill Reed, Carol Sanford, Pamela Mang, Ben Haggard, and CLEAR. We have adapted Choukeir’s framework for the design education context below (see Table 1). With Choukeir’s framework and definitions, we consider levels of learning and examples of shallow to deep learning in regenerative and sustainable design education.

Table 1: Design Education from Extraction to Regeneration - adapted from "A vital scale for regeneration" (Choukeir, 2023)

	Paradigm	Learning level	Definition (from Choukeir 2023)	Examples
Future system	Regenerate	3rd order learning, Transformative, Do more good	Creating conditions for life to flourish over the long term	Where design education presents all life as valuable and worthy of care and commits to creating long-term and widespread community and environmental health and wellbeing by systemically redirecting the focus of design towards regenerative values.
Future system	Restore	2nd order learning, Reformation, Undo harm	Reversing some of the negative impacts on people and places for the near term	Where design education presents community and environmental health having intrinsic value and design is redirected to restore community and environmental health and wellbeing within planetary boundaries.
Current system	Sustain	1st order learning, Accommodation, Do less harm	Minimising harm to maintain productivity of the current system over time	Where design education community and environmental health are valued as contributions to economic prosperity and there are fragmented attempts to preserve health and wellbeing.
Current system	Extract	No learning, Reproductive, Do more harm	Improving efficiency and productivity to extract more value.	Where design education dismisses and denies the ways in which it facilitates processes where community and environmental health and wellbeing are sacrificed for economic prosperity for a few.

A change in trajectory is needed. "We now face a critical, ecological turn. The crux of this shift for design research is the need to redefine this discipline space in transitional times" (Boehnert, Dewberry, and Wilson 2022, 16). Educational theorists have long described how transformative learning methods can facilitate a process of unlearning outdated assumptions, and a necessary reframing of eco-social relationships (Misiasek, 2020; Kahn, 2010; Freire, 2004). Sustainable transitions require not only new knowledge, but new capacities to interrogate normative ways of knowing with transformative learning (Sterling, 2001), double or triple loop learning (Gupta, 2016), or unlearning (van Oers *et al.*, 2023). These models enable a fundamental reframing and unlearning unsustainable norms - as a paradigm shift away from historic ways of knowing that dismiss ecological knowledge.

## Conclusion

Transformation of the design industry starts with design learning. Design education in an era of ecological crisis depends on hybrid knowledge generated with ecological literacies and the sustainability sciences integrated with critical thinking, design thinking, design methods, and design skills. Design learning for regenerative sustainability relies on systemic and critical engagement with ecological and sustainable literacies. Unlearning unsustainability requires critical tools to identify various types of superficial sustainability including greenwashing. The three drivers of unsustainability in design education described above enable a continuation of business-as-usual which present obstructions in design schools and in design learning for sustainability. The destructive loop of unsustainability must be broken with deliberate strategies. One such strategy is Choukeir's "A Vitality Scale in Regeneration" as a model to identify stages of design for sustainability and regeneration. Where design is "lost" (Walker, 2023) we argue that despite the many obstacles, it can be transformed. Commitments to learning have changed lives and societies in the past. Breaking the cycle of unsustainability in design education starts with unlearning the assumptions responsible for unsustainable practice.

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