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## Plastic Entanglement—A visual narrative with single-use plastics

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**Relating Systems Thinking and Design  
(RSD12) Symposium | October 6–20, 2023**

## ***Plastic Entanglement—A visual narrative with single-use plastics***

**Katarina -Dimitrijevic aka KraalD**

*For clarity, I use the pseudonym KraalD for my design praxis.*

This exploration is a self-ethnographic plastic waste engagement that visually critiques plastic pollution in nature through reuse with single-use plastic waste. I made the initial *XMass* [working title] installation in my garden during the COVID-19 lockdown in the UK (Dimitrijevic, 2021; KraalD, 2021). The prosumer installation mediates relations between plastics and nature. The installation has transformed over the past two years and currently sits under transpositional works in progress.

*Plastic Entanglement* visually explores do-it-yourself (DIY) craft tactics with single-use plastics and highlights the presence of mismanaged plastic waste in nature. The outcome is a visionary aesthetic response and visual narrative interdisciplinary connecting design with open-loop reuse, fostering novel design and nature relations and raising awareness of slow environmental violence and plastic pollution.

Through hands-on engagements, I created an aesthetically valuable environmental response with long-lasting plastic resources. In this exhibition series, I integrate craftivism—the political art of DIY craft and social design activism, theoretically entangled with new materiality (Braidotti, 2006) and feminist science (Liboiron, 2012; 2021). Through ontological design processes of making with single-use plastic, I am co-creating an aesthetic response (Hillman, 1996) to slow “environmental violence” (Liboiron, 2021, p. 88), representing mismanaged plastic waste narrative and visualising plastic pollution.

KEYWORDS: KraalD waste safari, plastic visual narrative, design for reuse, visualising plastic pollution, environmental violence, new materiality

RSD TOPICS: Socioecological Design, Cases & Practice, Methods & Methodology

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## ***Plastic Entanglement***

We live in a plastic debris era. In the first two decades of the twenty-first century, plastic production has quadrupled compared to the last century. From the individual perspective, it is challenging to visualise the extent of plastic pollution due to proximity, planetary entanglement, and multiplicities of scale. KraalDesignedisposal (KraalD) design research praxis is responsible for participating and intervening in worldviews to build positive relations to plastic waste through participatory engagements, novel reuse practices, mapping conversations, visualising plastic pollution and developing learning tools for sustainable awareness. For clarity, I use the term *praxis* to denote social design-oriented participatory action research. The primary motivation for the social practice of designing with single-use packaging is to promote reuse and waste relations and nudge towards behavioural change.

## **Visual narrative with single-use plastics**

I work closely with plastic things designed into the praxis-led socio-material narrative. I intend to tell the super-wicked (Levin et al., 2007) story of plastic waste, part of geological and environmental events and find a temporary space mediated through installation, craft-making, and material-led conversations. Ultimately, praxis supports change—from perceiving plastic waste as an undesired material externality to forging new positive waste (Kennedy, 2008) aesthetics and relations with plastic things. The praxis research process integrated reuse with plastic packaging to create new relations with plasticised bodies in nature.

For example, in my site-specific installation, I visually mediate the slow environmental violence of plastic pollution entanglement in nature (Liboiron, 2012; 2021). Through feminist notions and art trash aesthetics, I am promoting and exploring creative

open-loop aspects of craft reuse that are dormant in contemporary recycling waste-management regimes.

Through reusing single-use plastics packaging as a *reflective conversation with materials* (Schön, 1984), my research praxis facilitates conversations for re-using various types of non-recyclable and recyclable plastic packaging components, nudging the industrial production reduction of the resources we use and consume daily.

While the wide variety of plastic types complicates the viability of recycling, the quantity and diversity of single-use products put increasing pressure on waste management infrastructures (Napper et al., 2021, p. 28). In contrast, UK municipal solid waste (MSW) services focus on closed-loop waste management regimes. In the *Plastic Entanglement* installation, I focus on exploring open-loop hand-reuse practices with single-use plastics, as “design for re-use has the potential to increase people's awareness of the environmental impact of packaging” (Fisher & Shipton, 2010, p. 155). Open-loop and DIY reuse practices turn designed products like colourful plastic bottle tops and cable ties into the socio-environmental material narrative, becoming critical artefacts (Figure 1).

### **Mismanaged plastic waste**

Ek and Johansson (2020) observe that disposed and discarded waste remains within a theoretical discourse in social and cultural domains despite its prominent and everyday presence. As a verb, waste is used with an object as an act or instance of using or expending something carelessly or for no purpose. According to the World Economic Forum (WEF), 40% of plastic packaging ends up in landfills, 14% is incinerated, and 14% is recycled (WEF, 2016). This leaves a staggering 32% to be lost to the environment, including being transposed by wind and waterways to oceans (WEF, 2016, as cited in Johansson, 2021). In 2019, Lebreton and Andrady introduced the term “mismanaged plastic waste”, which I use in text and through the installation works to bring attention to single-use plastic packaging lost to the environment.

Despite municipal plastic waste (MPW) recycling campaigns focusing on consumers' responsibility, only a small proportion of the MPW comes from household disposal. Corvellec et al. (2018, p. 7) identify that the combined waste from businesses within the construction, manufacturing, service, forestry, and agriculture sectors is several times

more. Liboiron emphasises that “one of the major scalar fallacies in environmentalism... is that systemic environmental degradation is created, and can be combated, through individual consumer choice” (Liboiron, 2012, p. 206, as cited in Farrelly et al., 2021, p. 8).

The latest United Nations Food and Agriculture Organization (FAO) report finds that “the earth’s soils may be more saturated with plastic pollution than oceans” (FAO, 2021). The FAO report announces the first global call for action to protect agricultural soils from plastic pollution based on the 6R principle’ standing for sustainable plastic use, which involves refusing, redesigning, reducing, reusing, recycling, and recovering plastics (FAO, 2021).

## **New materiality**

Braidotti's post-humanist new materiality is a feminist philosophy that challenges the prevailing post-anthropocentric agenda and the assertion of advanced technologies that mean 'man is the measure of all things' (Braidotti, 2006, p. 110). The bio-centred egalitarianism is a philosophy of affirmative becoming, which activates a nomadic subject into sustainable processes of transformation' (Braidotti, 2006, p. 110).

Through the DIY transformational process of making plastics, I visually interpret the mismanaged plastic waste pathways in nature with my diverted municipal recycling. The “emphatic reiteration” (Braidotti, 2006, p.1) aids in defining eco-feminist environmental justice, raising a she-fox wake-up call for planetary and equality rights for all life. All entities, whether a cell, a commodity or an ecosystem, have equal value in *bio-centred egalitarianism* (Braidotti, 2006), “a philosophy of affirmative becoming, which activates a nomadic subject into sustainable processes of transformation” (Braidotti, 2006, p.110).

Transformed by hand weaving using the new cable ties (representing rising oil production) and plastic bottle tops and bottle ring components (not for recycling) around the tree trunk or concrete column, I encourage the mismanaged plastic waste narrative to take its place (Fig. 2). The mixed plastics DIY technique creates messy entanglement, highlighting multispecies relations and interactions along the “materialist lines of becoming as deep transformations of self and society” (Braidotti, 2006, p. 109).

## Reflective material conversations

Transformed through visual and material mediation, the installation addresses the complex ethical issues concerning plastic pollution, self-consumption, and planetary nature relations. In *Aesthetics and Politics*, Hillman asks, “Can there be ethics without aesthetics?” (1996, p. 41). The DIY process of reflective reuse hand-making with plastic materiality narrates and represents my solitary practices of protest (Fisher & Shipton, 2010). However, my praxis research supports and participates in the socio-material change, fostering the visualisation of single-use mismanaged plastics waste in nature, plastic pollution and slow environmental violence (Liboiron 2012; 2021). A form of Land mediation emerges through reflective material conversations (Figure 3).

## References

1. Braidotti, R., (2006). *Transpositions: On Nomadic Ethics*, Cambridge: Polity Press.
2. Corvellec H., Ek. R., Johansson, N., Svingstedt, A., Zapata, P., & Zapata Campos, M. J., (2018). *Waste Prevention is About Effective Production and Thoughtful Consumption—Not About Waste, Seven Lessons from The Research Project, From Waste Management to Waste prevention, Helsingborg, Department of Service Management and Service Studies*. Lund University.
3. Dimitrijevic, K., (2021). KraalD Waste Safari: XMass, In Waste Safari Contest Opening The Bin 2. *Online Conference June 2021*.  
<https://www.youtube.com/watch?v=eoXtxkZkwYQ&t=97s>
4. Ek, R., and Johansson, N., (2020). *Introduction: Let us Open the Bin. Perspectives on Waste from the Social Sciences and Humanities: Opening the Bin*. Cambridge Scholars Publishing.
5. FAO, Food and Agriculture Organisation of the United Nations, (2021). *Assessment of Agricultural Plastics and their Sustainability: A Call for Action, Rome 2021*.  
<https://www.fao.org/3/cb7856en/cb7856en.pdf>
6. Farrelly, T. A., Taffel, S., & Shaw, I.C. (2021). *Our Plastic Inheritance, Plastic Legacies: Pollution, Persistence, and Politics*. AU Press.
7. Fisher, T., and Shipton, J., (2010). *Designing for Re-use: the life of consumer packaging*. Earthscan UK and USA.

8. Hillman, J., (1996). Aesthetics and Politics. *Institute of Labor and Mental Health, Tikkun, San Francisco Vol. 11, Issu. 6, Nov/Dec 1996: 38-44.*
9. Kennedy, G., (2008). An Ontology of Trash, The Disposable and Its Problematic Nature. *SUNY Series in Environmental Philosophy and Ethics.*
10. KraalD, KraalDesignedisposal. (2021). *XMass Tree Installation 2020-21.*  
<https://kraald.org/work-page/>
11. Lebreton, L., & Andrady, A. (2019). Future Scenarios of Global Plastic Waste Generation and Disposal. *Palgrave Communications* (2019) 5:6.  
<https://www.nature.com/articles/s41599-018-0212-7>
12. Levin, K., Cashore, B., Bernstein, S., & Auld, G. (2007). Playing it Forward: Path Dependency, Progressive Incrementalism, and the “Super Wicked” Problem of Global Climate Change. *International Studies Association Convention.*
13. Lindblom, C. E. (1959). The Science of Muddling Through. *Public Administration Review, 19(2), 79–88.*
14. Liboiron, M. (2012). *Redefining Pollution Plastics in the Wild.* [Thesis]. Steinhardt School of Culture, Education and Human Development, New York University.
15. Liboiron, M. (2021). *Pollution Is Colonialism.* Duke University Press.
16. Napper, I. E., Pahl, S., & Thompson, R.C. (2021). Marine Litter: Are There Solutions to This Global Environmental Problem? *Plastic Legacies: Pollution, Persistence, and Politics, AU Press.*
17. Schön, D. A. (1984). *The Reflective Practitioner: How Professionals Think in Action.* New York: Basic Books.
18. World Health Organisation (2020). *Technical Specifications of Personal Protective Equipment for COVID-19, Interim Guidance 13 November 2020.*  
<https://www.who.int/teams/health-product-policy-and-standards/assistive-and-medical-technology/medical-devices/ppe/ppe-covid>

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Figure 1: Dimitrijevic/KraalD, 202. Waste safari/ XMass Tree Installation 2020-21, UK.



Figure 2: Dimitrijevic/KraalD, 2023. *Plastic Entanglement* installation. Design School, Loughborough University, UK.



(Fig. 3). Dimitrijevic/KraalD, 2023. *Plastic Entanglement* installation. Design School, Loughborough University, UK.