

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

# **Playing With Systems**

Dan Lockton<sup>1</sup>, Jet Vervoort<sup>2</sup>, Maikel Waardenburg<sup>3</sup>, Jessica Duncan<sup>2</sup>, Josie Chambers<sup>3</sup>, Raimon Ripoll Bosch<sup>2</sup>, Joost Vervoort<sup>2</sup>, Joyce Browne<sup>4</sup>, George Downward<sup>4</sup>, Alay Llamas<sup>4</sup>, Sable Knight<sup>5</sup>, Dan Vy Vu<sup>5</sup>, Saskia Colombant<sup>3</sup>

<sup>1</sup>Eindhoven University of Technology | <sup>2</sup>Wageningen University & Research | <sup>3</sup>Utrecht University | <sup>4</sup>University Medical Center Utrecht | <sup>5</sup>independent consultants All affiliated with the Centre for Unusual Collaborations, Utrecht

How can we play with the systems we're in? Our Playing With Systems workshop explores the use of playful activities to foster and support interdisciplinary connections and collaborations in a systemic design context. Building on our previous workshop, <u>Playing With The Trouble</u> at RSD11 (Figure 1), we focus specifically on the challenges of **"unmaking" systems** as part of a wider programme of developing creative prototype minigames addressing different aspects of the challenges faced in collaborations between disciplines—in practice and academia. We invite you to bring your systems, and we'll explore and unmake them together through activities that, we hope, can be useful (and, perhaps, ultimately transformative) in your research and practice.

The systemic design community, with experience in crossing boundaries and co-designing, working at different levels of abstraction, is well positioned to tackle many of these challenges, including surfacing (and understanding each other's) worldviews, facilitating collective imagination, and embracing ambiguity and uncertainty. But the notions of collaboratively interrogating the systems we are in, excavating assumptions, dismantling and unpicking power structures, and

proposing new ways to intervene and (re)build, are central to the kind of reflexive understanding that systemic designers bring to interdisciplinary (and transdisciplinary) projects. Our facilitation team (a subset of the authors) includes project members from a large interdisciplinary team of researchers working at the intersection of technical, social, political, (bio)medical, and humanistic fields, and we aim to make the most of participants' (inter-) disciplinary and systems expertise. This is a co-design session in which participants make new connections and collaborations with each other through play.

KEYWORDS: interdisciplinarity, play, unmaking, methods

RSD TOPICS: Methods & Methodology

### **Background: unmaking systems**

This workshop is a development of our previous session, 'Playing With The Trouble', at RSD11 (Lockton, Chambers, Vervoort, Vervoort, Browne, Ripoll-Bosch, Ruijtenberg, Duncan, Waardenburg, and de Lint, 2022), and also builds further on some previous workshops and papers at RSD from the authors and others, for example, Swat and Lockton's (2021) online session on 'Manifesting Worldviews', Dudani and Lockton's (2021) online session 'Singular and Shared' which explored metaphors and systems, and Lockton, Brawley, Aguirre Ulloa, Prindible, Forlano, Rygh, Fass, Herzog, and Nissen's (2019) workshop on 'Tangible Thinking' which explicitly explored ways for participants to externalise the ways they think about disciplines and interdisciplinarity through physical materials.

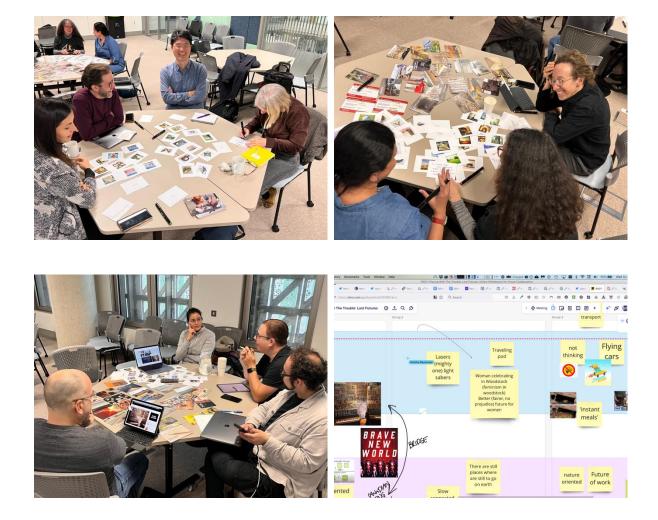


Figure 1. Moments from the RSD11 workshop in Brighton, UK, with the 'Roles & Relics', 'New Metaphors', and 'Lost Futures' activities

Interdisciplinary interactions and collaborations are central to systemic co-design, not just in terms of people with different areas of knowledge and expertise working together, but also recognising patterns and parallels at multiple levels of abstraction across disciplines and perspectives—the "pattern which connects" (Bateson, 1979). Systemic design can be an approach which seeks to *dissolve* established disciplinary boundaries (and binaries): it often involves working at a level above-or perhaps below—the divisions which might keep different expertise areas separated. The RSD community brings together people with a variety of disciplinary backgrounds, and presentations and workshops often seek to address and cross boundaries or to develop and explore methods which transcend the boundaries entirely, perhaps through tools for framing complexity (e.g. the Systemic Design Toolkit (Jones & van Ael, 2022)). The scales of this boundary-crossing can be at the global level of planetary issues, such as climate crisis, health, inequality, or ecology, through national or cultural-political contexts, right down to small-group or team collaborations. When the challenge becomes not just collaboration as an end in itself but cooperation to address and foster societal transitions and transformations at every scale—even though the specifics of the challenges may be different—there are some similar critical issues. But practically, how can this kind of interdisciplinarity be facilitated, enabled, and supported? Are there lessons from the kinds of approaches that systemic designers take?

We focus specifically on the challenges of **"unmaking" systems** as part of a wider programme of developing creative prototype 'minigames' addressing different aspects of the challenges faced in collaborations between disciplines—in practice and in academia. The notion of 'unmaking' in design has emerged in recent years (e.g. Lindström and Ståhl, 2020; Twigger Holroyd, 2022; Sabie et al., 2022a) as a counterpart to the common framing of design as 'making' (even critical making (Ratto, 2011)), but, especially in a co-design and participatory context, it can be a way of addressing and contesting existing power structures. Sabie et al. (2022b) argue that critical unmaking can be an agonistic practice, a collaborative way to challenge, undo, disassemble, or (propose to) destroy systems, a provocative interrogation of systems, often from the perspectives of those who have been most hurt or marginalised by them. In a design or rather human-computer interaction context, Jackson et al. (2023) suggest that unmaking "foregrounds concerns of materials, decay, breakdown, precarity, and the rich spectrum

4

of quasi-states in between". Many of these concepts also have relevance as metaphors within systems (Lockton, 2021): we are well-attuned to the notion of systems decaying, breaking down, or failing. The idea of unmaking systems potentially also overlaps with "letting go" in transitions to more sustainable ways of living (Coops, van der Veen, van der Horst, Bogner, and Lockton, 2023), "figuring out what needs to be phased out, broken down and let go of". Outside of a co-design context, unmaking systems can be seen as part of a larger trend of unmaking as a way of addressing degrowth, alternatives to capitalism, and decolonising of imaginaries (Feola, 2019).

While unmaking systems is a serious topic, potentially a provocative and critical endeavour engaging with issues of power, privilege, and entrenched interests, we aim to approach this in a way which encourages playfulness, exploration, and imagination. Together, participants excavate assumptions, explore how to dismantle and unpick power structures, and propose new ways to intervene and (re)build via a series of activities. These are still under development but are likely to include an evolution of our activity, Tentacular Worlds, inspired by the Futures Wheel (Glenn, 2021; Bengston, 2016), Fashion Fictions (Twigger Holroyd, 2022), and Aguirre Ulloa & Paulsen's (2017) relational materials mapping (Figure 2). We also link to other purposes around more playful forms of interdisciplinary exchange and collaboration, including **facilitating collective imagination, surfacing worldviews**, and **embracing ambiguity and uncertainty**.

We aim to make the most of participants' own (inter-)disciplinary and systems expertise—this is a session in which participants make new connections and collaborations with each other through play, in the process playtesting prototype activities which in turn could be useful in their own work and practice. We have a variety of activities within the 90-minute slot. The workshop is facilitated in person by members of the project team.

#### 6

## Outline

#### 90 minutes | 15–25 participants | in-person<sup>1</sup>

- 5-minute introduction to interdisciplinarity, its challenges, the idea of unmaking systems, and systemic design perspectives
- 10-minute activity on getting to know each other, including feedback
- 20-minute activity creating worlds in pairs or threes as a way to explore alternatives framing of systems, including feedback
- 5-minute break
- 40-minute activity joining, making, and unmaking the worlds and possible consequences, all together
- 10-minute closing discussion with whole group

<sup>&</sup>lt;sup>1</sup> Our intention is that this is a physical, in-person workshop, due to the use of physical materials in the activities.



Figure 2. An example of one of the activities, Tentacular Worlds, being tested at a recent workshop in Ede, Netherlands, with participants from different (non-design) backgrounds.

## References

- 1. Aguirre Ulloa, M., and Paulsen, A. (2017). Co-designing with relationships in mind. *FormAkademisk*, *10*(1). https://doi.org/10.7577/formakademisk.1608
- 2. Bateson, G. (1979). *Mind and Nature: A Necessary Unity.* E.P. Dutton, New York.
- Bengston, D.N. (2016). The Futures Wheel: A Method for Exploring the Implications of Social–Ecological Change. *Society & Natural Resources*, *29*:3, 374-379, DOI: http://doi.org/10.1080/08941920.2015.1054980
- Coops, F., van der Veen, R., van der Horst, S., Bogner, K., and Lockton, D. (2023). Designing Spaces for Letting Go in Sustainability Transitions. *Proceedings of Relating Systems Thinking and Design RSD12 Symposium*. https://rsdsymposium.org/letting-go-in-sustainability-transitions/

- Dudani, P. and Lockton, D. (2021). Singular and Shared—Exploring metaphors and systems. *Proceedings of Relating Systems Thinking and Design RSD10 Symposium, Delft.* https://www.researchgate.net/publication/355439948\_Singular\_and\_Shared\_Explorin g\_Metaphors\_and\_Systems
- Feola, G. (2019). Degrowth and the Unmaking of Capitalism: Beyond 'Decolonization of the Imaginary'? *ACME: An International Journal for Critical Geographies*, *18*(4), 977–997. https://acme-journal.org/index.php/acme/article/view/1790
- Glenn, J. (2021). The Futures Wheel. In: Futures Methodology 3.0, *The Millennium Project.* https://www.researchgate.net/publication/349335014\_THE\_FUTURES\_WHEEL
- Jackson, S., Lindström, K., Paulos, E., Sabie, S., Song, K., Ståhl, Å., and Wakkary, R. (2023). Unmaking & HCI: Techniques, Technologies, Materials, and Philosophies Beyond Making. Call for papers. *ACM Transactions on Computer-Human Interaction*. https://dl.acm.org/journal/tochi/unmaking
- 9. Jones, P. and van Ael, K. (2022). *Design Journeys through Complex Systems: Practice Tools for Systemic Design*. BIS.
- Lindström, K. and Ståhl, Å. (2020). Un/Making in the Aftermath of Design. In Proceedings of the 16th Participatory Design Conference 2020—Participation(s) Otherwise—Volume 1 (PDC '20). Association for Computing Machinery, New York, NY, USA, 12–21. https://doi.org/10.1145/3385010.3385012
- 11. Lockton, D. (2021). Metaphors and Systems. Proceedings of Relating Systems Thinking and Design RSD10 Symposium, Delft. https://rsdsymposium.org/metaphors-and-systems/
- 12. Lockton, D., Brawley, L., Aguirre Ulloa, M., Prindible, M., Forlano, L., Rygh, K., Fass, J., Herzog, K., and Nissen, B. (2019). Tangible Thinking Materialising how we imagine and understand systems, experiences, and relationships. *Proceedings of Relating Systems Thinking and Design RSD8 Symposium*, *Chicago*. http://imaginari.es/tangible
- Lockton, D., Chambers, J., Vervoort, J., Vervoort, J.M., Browne, J., Ripoll-Bosch, R., Ruijtenberg, S., Duncan, J., Waardenburg, M., and de Lint, L. (2022). Playing With The Trouble: Exploring (mini)games for interdisciplinary connections. *Proceedings of Relating Systems Thinking and Design Symposium*, *RSD11*. https://rsdsymposium.org/playing-with-the-trouble/

- Ratto, M. (2011). Critical Making: Conceptual and Material Studies in Technology and Social Life. *The Information Society*, *27*:4, 252-260. http://doi.org/10.1080/01972243.2011.583819
- 15. Sabie, S., Song, K.W., Parikh, T., Jackson, S., Paulos, E., Lindström, K., Ståhl, Å., Sabie, D., Andersen, K., and Wakkary, R. (2022a). Unmaking@CHI: Concretizing the Material and Epistemological Practices of Unmaking in HCI. In *Extended Abstracts of the 2022 CHI Conference on Human Factors in Computing Systems (CHI EA '22)*. Association for Computing Machinery, New York, NY, USA, Article 105, 1–6. https://doi.org/10.1145/3491101.3503721
- 16. Sabie, S., Jackson, S., Ju, W., and Parikh, T. (2022b). Unmaking as Agonism: Using Participatory Design with Youth to Surface Difference in an Intergenerational Urban Context. In *Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems (CHI '22)*. Association for Computing Machinery, New York, NY, USA, Article 324, 1–16. https://doi.org/10.1145/3491102.3501930
- Swat. J. and Lockton, D. (2021). Manifesting Worldviews. Proceedings of Relating Systems Thinking and Design RSD10 Symposium, Delft. https://rsdsymposium.org/manifesting-worldviews/
- Twigger Holroyd, A. (2022). Fashion Fictions: unmaking the mainstream fashion system. *Global Fashion Conference 2022*–Fashion Sustainability: From Dream to Reality, AMD–Akademie Mode & Design–Hochschule Fresenius – University of Applied Sciences, 17-18 November 2022. https://fashionfictions.org/wp-content/uploads/2022/11/Fashion-Fictions-unmaking-

the-mainstream-fashion-system-FULL-PAPER.pdf

## **Project team**

Dan Lockton, Assistant Professor, Eindhoven University of Technology. http://imaginari.es | d.j.g.lockton@tue.nl

Jet Vervoort, Education Fellow, Wageningen University & Research. jet.vervoort@wur.nl

Maikel Waardenburg, Assistant Professor, Utrecht University. https://maikelwaardenburg.com | m.waardenburg@uu.nl Jessica Duncan, Associate Professor, Wageningen University & Research. http://foodgovernance.com | jessica.duncan@wur.nl

Josie Chambers, Assistant Professor, Utrecht University. j.m.chambers@uu.nl

Raimon Ripoll Bosch, Assistant Professor, Wageningen University & Research. raimon.ripollbosch@wur.nl

Joost Vervoort, Associate Professor, Utrecht University. j.m.vervoort@uu.nl

Joyce Browne, Associate Professor, University Medical Center Utrecht. jbrowne@umcutrecht.nl

George Downward, Assistant Professor, University Medical Center Utrecht. G.S.Downward-2@umcutrecht.nl

Camilla Alay Llamas, Project Manager, University Medical Center Utrecht. C.A.Llamas@umcutrecht.nl

Sable Knight, independent games consultant.

Dan Vy Vu, independent design consultant.

Saskia Colombant, Project Assistant, Wageningen University & Research.

## Acknowledgements

Our thanks to Corinne Lamain, Anke de Vrieze, Caspar Schoevaars, and Helma van Luttikhuizen from the Centre for Unusual Collaborations (https://www.unusualcollaborations.com) for their support for the project Playing With The Trouble.