On circularity

Main image: https://unsplash.com/photos/d30sszrW7Vw

OpenDoTT was planned in such a way that each fellow's research was expected to move in a progressive way. In the first year, we used methods of design research to have a sense of the context around each of our research topics and to create design concepts in response. The main objective of the second year was to build prototypes based on those design concepts and in dialogue with contemporary discussions on open leadership, privacy and open hardware. Finally, the third year - the current and last one - offered us fellows the chance to review and update design concepts from a perspective of inclusion and policy.

One of the proto-concepts I am working with is the idea of a spiral of openness - an approach that simultaneously contemplates circularity as a meta-shape and the understanding that a situation never returns exactly to the same point. At each turn, the conditions - and ourselves - are different. This approach has put me in an ambivalent relationship with the structure planned for OpenDoTT. On the one hand, I have followed its planned linear progression - focusing first on design research, then prototyping and finally policy-making. On the other, I have often incorporated previous experiences from other projects past and current, mostly outside of academia. In other words, instead of always moving forward on a predefined path, my research had me revisiting not only the actions I performed as part of OpenDoTT but also past achievements and failures that proved relevant here and there, as well as conditions situated beyond those of my research topics.

Far from being a mere recollection of old ideas though, the PhD research allowed me to dive deeper into themes I had previously only touched lightly as well as to explore new avenues of thought. I am interested in particular in the potential connection between policy, design research and digitally-inspired open design. I recollect some of my past experiences with policy-making and reflect both on how they influence my current research as well as how the PhD reshapes my understanding of those episodes.

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Spiral Policy-making

When shifting the focus of my research towards policy, I was conscious that only proposing a different narrative is not enough to transform common assumptions about waste management into a perspective of care and generosity. At an earlier stage when we were reflecting on open design methodologies, I worked with the idea of a spiral of openness. Instead of sitting in a studio looking for a bright idea to present to potential users, it felt more appropriate to engage with people who might be interested in the kinds of issues I am concerned with. I would discuss, shape ideas, present and test them, and then discuss again - not in a perfectly circular way, but rather through a sometimes bumpy and irregular spiral that never returned exactly to the same point.

Spanish scholar Antonio Lafuente describes how people affected by rare diseases organise themselves through the internet in order to demand for science be developed. This particular form of open science can be a good reference to think of truly relevant participatory policy-making. As city inhabitants and organisations are directly impacted by decisions made at a municipal level, they can be similarly seen as a "community of affected". Lafuente goes one step further that may also be part of the discussion: more than public and open science, he proposes the idea of common science. Not only in the sense of commons as a shared resource but also common as ordinary, belonging to all parts involved in it. In my work, I intend to entertain the idea of common policy-making: as a socially governed commons, as well as ordinary to the common people.

In revisiting my early design concepts whilst maintaining open-ended conversations with diverse types of interested parties and observing initiatives evolve, I intend to contribute to the construction of participatory policies for commons-based governance of goods and materials in cities and regions. It should be pointed out however that I do not situate myself as an external designer analysing a community from a distance. Rather, I feel very much an active member of this international community interested in promoting the reuse of materials.

Communities and participant observation

My research is informed by practices of design justice, according to which communities should not only be informed but rather actively involved in creating solutions for their needs. That is not only a theoretical choice but rather a result of having been active in the past with participatory policy-making. Following Tim Ingold's take on anthropology, I prefer to learn with situations rather than about them. For that reason, my participation in groups and communities both online and in-person is one of my main sources of insight.

Additionally, my personal experience of cities appears in my research in a very direct way. I was born and lived for decades in different parts of Brazil. Before moving to my current home in Berlin, I have lived in 21 neighbourhoods spread around 9 cities in 4 countries. That means that I'm the person who is never sure to be in line with all the taxes, regulations, insurance, childcare arrangements, social habits, neighbourhood festivities and so on. The person who always needs to find out how to schedule a dentist appointment, or to get prescriptions. And who has to learn over and again when, how and where to put the garbage out.

In his ethnographic account of technology use in Brazilian favelas (slums), David Nemerborrows the concept of 'mundane technologies' - those technologies that are not anymore the newest thing coming from Silicon Valley but are in effect being used by common people. Understanding the tools and equipment already present in repair workshops and similar structures as mundane technologies can help frame the material conditions to increase the local society's desire and ability to reuse materials.

Focusing on a context of ever-failing infrastructure, Nemer draws attention to the importance of repair - not as the maintenance of an impossibly stable state, but rather as the constant production of stability. Under that perspective, repair itself can be considered a mundane technology, and one of critical necessity without which everyday life can be severely impacted. And beyond seeing repair practices as the Brazilian gambiarras (improvised, everyday making-do) merely as material hacks, Nemer treats them as acts of care. All the above informs the theme of my PhD research and the path it is taking. As hinted earlier, my investigation explores waste prevention as an alternative to waste management. Rather than increasing the speed of collecting discarded material to be sent out to recycling, incineration or landfilling, the research aims at reflecting on the potential value of said material and how to generate social and environmental benefits from it. I approach that context from varied perspectives: identifying individual/household behaviour, mapping urban flows of second-hand materials, creating and prototyping design concepts, as well as engaging with an international community of practitioners and researchers experienced with different aspects of material reuse.

While my research analyses policies that may impact my research, it also discusses participatory practices in policy-making, particularly the context in which a commons-based perspective can be useful to identify and shape the governance of material resources in cities and regions. Instead of making governments objectively more efficient, the baseline is to find ways to make bio-regions thrive, and that has to necessarily involve all the possible stakeholders. In another blog post, I list some of my past experiences in creating and implementing policy in a direct connection with affected communities. Those experiences are described in the form of personal stories, among other things as a way to stress the importance of personal relations in the real-world implementation of policies. These stories and lessons learned from them will provide elements to discuss commons-based policy-making.

As mentioned elsewhere, my research is set around the idea of generous cities - ones in which material generosity is incentivised and rewarded. That perspective focuses on alternatives to waste management in Smart City initiatives. Typically, smart waste management promotes the use of information technologies focused on the efficiency of waste collection, assuming that the main way to handle excess materials in cities and regions should be to collect them and distribute them to recycling plants, energy-generating incineration and safe landfills.

Instead of objective efficiency, however, I want to highlight the centrality of intentional care even when performed anonymously - to promote sustainability, regenerate social bonds and enable economic inclusion for local agents. A good proportion of excess materials can generate value - and not only in the economic sense - when they are diverted from the waste stream and handled with skills and knowledge that are usually already present in cities.