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DIY Research on my Balcony

On doing a practice-oriented PhD in an Era of Social Fragility

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On doing a practice-oriented PhD in an Era of Social Fragility

Merle Ibach

Abstract

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This paper explores the intersection of DIY making cultures and ethnographic research in the context of the COVID-19 pandemic. The global crisis profoundly disrupted my doctoral research, originally focused on prototyping alternative futures through urban living labs. Confronted with lockdown restrictions and social distancing measures, my research site shifted unexpectedly to my own balcony, where I engaged in DIY practices such as building a chair from reclaimed materials and fermenting sourdough. This embodied engagement with making not only stabilized my sense of agency but also became a methodological lens to rethink knowledge production in times of crisis.

By reflecting on my personal experiences, I argue that DIY practices during the pandemic evolved beyond leisure activities to become meaningful epistemic and care practices, that embrace long-standing local traditions. This shift in Western perception highlights the socio-material entanglement of making as a response to uncertainty, reconfiguring DIY from a discourse of self-sufficiency to one of social care and resilience. In doing so, my study aligns with inventive methodologies in Science and Technology Studies, which emphasize knowledge production through material engagement. The pandemic destabilized traditional ethnographic boundaries, prompting questions about the field, researcher-subject relationships, and disciplinary constraints in social sciences.

In the paper, I suggest that DIY making not only offers a means of coping but also illuminates new ways of understanding and constructing knowledge. This re-situated and practice-based PhD research contributes to broader discussions on inventive methodologies, feminist technoscience, and the role of materiality in ethnographic inquiry, advocating for a more caring and inclusive approach to knowledge production.

Keywords

Practice-based PhD, design anthropology, DIY research, inventive methods, care, polycrisis, urban living labs

Introduction

The onset of the COVID-19 pandemic in early 2020 drastically altered the landscape of my PhD research. Actually, I had planned to investigate how urban living labs in Germany make use of the countryside to prototype alternative forms of living, and create added value in response to the accumulation of social, ecological, and political crises. I had planned several field trips, and after a year and a half of preparation, I had even received extensive funding for my research. Indeed, I was finally ready to go when the pandemic hit Basel (Switzerland), where I was living at the time. Such a sudden standstill canceled all appointments, and all projects were postponed for an indefinite period of time. The pandemic became an entire social turning point on a global scale. However, I only realized this as the months of the "new normal"—like the interim, prolonged state of limbo was called—went by. The actual tremendous social impact is still unfolding today in ever more facets. As media scholar Yener Bayramoğlu and political scientist María do Mar Castro Varela point out (2021), the long-lasting effects of the pandemic measures only gradually come to the surface: structural discrimination, social drifting apart, a pronounced fear of the future, isolation among young people, and problematic border policies. Although individual experiences of the pandemic widely differed, no one was left untouched.

In this paper, I will reflect on the three years of the pandemic that collided with my four years of doctoral studies in an unforeseen way. I will reflect on how my research subject, along with my research perspective, changed due to the pandemic and lockdown experience, followed by a continuing period of crises, that the *World Economic Forum* as well as other political institution refer to as polycrisis¹.

¹ https://www.weforum.org/publications/global-risks-report-2023/; https://www.eea.europa.eu/publications/transformative-resilience-the-key-to-governing, accessed 5.12.2024.

Therefore, I will shed light on a peripheral setting of urban social research: my balcony—or more precisely, how I, as a PhD student, tried to deal with the global shift while sitting on my balcony. To do so, I turned my object of study – DIY making cultures – into my method. Exploring DIY making cultures through my own tinkering and making shifted my research practices of assembly to practices of care, altering the relationship between material and researcher. My balcony could possibly have been any balcony of a person locked in at home during the pandemic. Nevertheless, this text is informed by a personal perspective, and I am aware of my privileged situation: Experiencing the pandemic in Switzerland meant for me that I had secured access to healthcare, medicine, and sufficient financial resources to bridge the lack of economic production in most places and sustain myself. The strict social measures and the uncertainty of what would happen next were tangible, however, and possibly the experience that connects to that of many others.

By unfolding do-it-yourself (DIY) activities that became popular during the pandemic, I explored my attempts to make sense of the situation and the social research in my PhD. I followed my gaze, shifting from the big picture to a micro-observation of my balcony (figure 1), my kitchen, and, above all, myself (figure 2). Following this shift, I detected how the pandemic had affected my research subject, while repositioning my role as a researcher. This article, although based on a personal experience, reflects the broader context of how DIY research has become concerned with the fragility of uncertain times. It demonstrates how the shifting focus of a world in transition affects the conditions of research, questioning the heuristics and theorems of knowledge production.



FIGURE 1 AND 2: My balcony during the pandemic in Basel in the summer of 2020, and I, tinkering with a seat made of bicycle inner tubes for my self-built lounge chair.

During this time of uncertainty, I took a closer look at my own positionality within the fields of sustainability, degrowth, and social reform movements. To do so, I linked up with the rather loosely assembled care discourse that has been unfolding through feminist counter-perspectives across many disciplines. This calls for a fundamental rethinking of material practices(?) in the sciences and the humanities (Mol et al. 2015; Puig de la Bellacasa 2017; Horelli et al. 2021; Dowling 2021) that has influenced disciplines such as design anthropology (Estalella and Criado 2019) and degrowth movements (Zechner et al. 2021; Schmelzer et al. 2022). In the care discourse, the world had already been uncertain before the pandemic. In fact, the late-modern humanistic conception of the world, which evoked an epistemological separation between the self and the environment, is incomplete and inherently discriminatory (Mol et al. 2015). With an awareness of care and more-than-human entanglements as anchors for social infrastructures, the care discourse also calls for a fundamental paradigm shift in the face of accumulating crises (Dowling 2021).

Therefore, I will show in this paper how the pandemic experience:

1) changed my perspective on my initial subject of research—the

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prototyping of alternative futures towards a DIY activism in times of crisis, and 2) led to re-situating my field of research, its heuristics and its theoretical frameworks. Locked in my apartment and locked out of my research field, I started to build a chair out of leftover pieces of wood on my balcony – and by doing so, joined a widespread boom of DIY activities that had popped up during the pandemic. Since the pandemic had destabilized almost all areas of life, the interest in baking sourdough bread, gardening on the balcony, and renovating the apartment turned out to be more than just a coping strategy to deal with boredom. On my balcony, I experienced: 3) my own DIY tinkering as a practice that was both stabilizing and sense-making, which 4) shifted my research focus towards DIY as a social practice of care on the one hand, and 5) on the other hand, questioned the disciplinary condition of the making of knowledge in the social sciences.

State of DIY research

The concept of do-it-yourself (DIY) is widely acknowledged as an integral aspect of a global maker movement, alongside practices such as making, hacking, repairing, open-source innovation, and urban activism. This movement is frequently examined within the fields of Science and Technology Studies (STS), Human-Computer Interaction (HCI) and Critical Media Studies (CMS). The maker movement, and its archetype, the "maker" as a white-male tinkerer, emerged prominently in the 2000s and was significantly shaped by *Make: Magazine* (Sipos and Franzl 2020). It gained attention through its framing as a "Digital Fabrication Revolution" (Gershenfeld 2012). The prevailing narrative positions the Maker Movement as a grassroots phenomenon, originating in Silicon Valley's creative and innovative milieu and subsequently spreading globally (Gershenfeld 2012, Foster and Boeva 2018).

However, critical social and cultural research calls into question this simplistic representation, which frequently fails to acknowledge the social diversity and historical significance of making practices. Scholars examine the maker movement's countercultural activities, its disruption of institutional dominance (Cramer 2019), and its local

and historical roots (Foster and Boeva 2018). This critique addresses the techno-optimistic, predominantly white male image of makers, exposing problematic power dynamics (Richterich and Wenz 2017). One example is the marginalization of traditional DIY crafts like knitting, which are often labelled as "female, low-tech" and frequently excluded from academic discourse (Foster and Boeva 2018). Instead, the concepts of DIY and making, which are often perceived as a uniform global phenomenon, encompass a multitude of practices that are adapted to suit local requirements. These include jugaad (Rai 2019), slöjd (Foster and Boeva 2018), gambiarra (Bandoni 2019), and home crafting (Voges 2017). Such approaches serve to expand the definition of *making* to include traditional and locally situated crafts and other forms of low-tech community practices.

A quick historical overview of DIY in Germany illustrates those diverse cultural meanings. After World War II doing things yourself and improvising everyday objects from war relicts (such as soup dishes or a colander made from soldier's helmets²), was a necessity to survive the massive lack of resources. Just a few years later, during the German 'economic miracle' of the 1950s-60s, DIY practices became a popular leisure activity which was tied to prosperity, home-ownership, and a growth of consumer culture (Voges 2017). Later, the influence of the U.S. counterculture movements contributed to the politicization of DIY in the 1960s-70s, which manifested in the establishment of youth centers and open workshops that promoted DIY as a social and pedagogical initiative (Sipos and Franzl 2020). Young generations in Western cultures took up DIY practices as a means of countering dominant expert knowledge, resisting the effects of globalization and environmental damage (Papanek 1973). However, this trajectory cannot be interpreted as linear or universal. In the German Democratic Republic (GDR), for instance, DIY was less associated with a consumerist leisure and instead became a state-mandated necessity, exemplified by the "open principle" of the GDR's New Economic Policy (Pfützner 2016, Gronert 2018).

² https://dingpflege.museumderdinge.de/pflegedinge/sieb-aus-einem-stahl-helm/, accessed 5.12.2024.

As diverse as the DIY imaginaries (Stein 2017), narratives (Lindtner and Lin 2017, Shorey 2020), and technomyths (Braybrooke and Jordan 2017) associated with the act of making are, they all share a common thread – one which is characterized by an engagement with, and response to, the prevailing socio-political conditions. The advent of the COIVD-19 pandemic has brought about a further shift. In the context of ongoing crises, wider publics are confronted with the urgent need and openness to rethink the relations of humans as part of fragile ecological systems³. Against this background, the paper argues that practices of DIY now serve both as a coping strategy for social uncertainty, and as a critique of modernity's production of knowledge.

Inventive methods to knowledge production

My doctoral research project initially commenced as a conventional ethnographic study, aiming to observe the activities of others and to gain an understanding of their practices and experiences. Such an approach separates the observed subject as a perspective external to my own. Social researchers and anthropologists are therefore increasingly engaged in deconstructing these old binaries and in a way, it is this blurring of an insider-outsider perspective what the pandemic has taught us. The circumstances of the global pandemic - including social distancing, restrictions on movement, uncertainty regarding public health measures, a sense of collective alarm, and a pervasive atmosphere of insecurity - have fundamentally transformed both the subject of my research and the conditions of my ethnographic fieldwork. On the one hand, the concept of 'do it yourself' has acquired a new socio-material dimension, becoming an epistemic practice of maintaining one's own stability. On the other hand, questions of the field's boundaries have emerged. These include: What constitutes the field? Who are the subjects of study? What are they doing, and how is it different from the researcher's own practices – if at all?

This shift aligns with a broader body of work in the field of STS, which examines the relationship between material practices and producing knowledge of the social. In the past 15 years, scholars in the field of STS have developed a range of innovative approaches, including the use of workshops as spaces for knowledge transformation (Kjærsgaard 2016), prototyping as a way to speculate on possible futures (Halse 2013, Smith et al. 2020), making things to make sense of things (Jungnickel 2018), or unmaking the plastic era (Lindström and Ståhl 2023). Others propose the implementation of more experimental methodologies, including the integration of co-design as a form of fieldwork (Drazin 2021) and the incorporation of embodied exercises such as sensing, walking, writing, performing, and recording (Culhane and Elliott 2017). These approaches provide the foundation for my own methodological exploration.

By examining DIY cultures during periods of crisis through the lens of DIY practices, I turned the very invention of the problem into a method. According to Lury and Wakeford (2012), inventive methods gain their potential by incorporating answerability into a problem, as they not only engage with the problem, but also transform it in the process of its unfolding. By adopting an inventive approach, the theoretical principles and heuristics of the investigation emerge from the act of making itself. Rather than relying on existing disciplinary fields, this approach involves learning from others and taking care of the mundane issues often overlooked in such fields. It also encourages researchers to rethink their assumptions, and re-learn from those typically considered research subjects. Here, approaches of feminist technoscience are taken up, which promote an alternative and critical production of knowledge. In that way, the heuristics and theorems underlying DIY research in uncertain times reorganize established knowledge ontologies, including the relationships between researcher and subject, or between humans and the microbes, bacteria, and viruses with which we coexist (Mol 2021). In this paper, the concept of DIY operates simultaneously as a research subject, ethnographic practice, tool and inventive method.

³ Of course, this is not a new concept, but it reaches a wider public. As can be seen from the resolutions of the Conference of the Parties (COP) since 2015, industrialized countries and global companies are now also becoming aware of their responsibility.

1) The Small World Of My Balcony

Basel stood still after the European spread of the pandemic in March 2020⁴. Otherwise a vibrant city characterized by an extensive cultural offering, countless museums and bars, and a vivid lifestyle on the banks of the Rhine, Basel was all of a sudden neglected and empty. Interpersonal contacts were reduced to a minimum. Even gazes were evaded, as if eye contact could be infectious. Due to the social and spatial limitations and by averting my gaze from the outside, I inevitably turned my attention to myself.

Doing a PhD is already an egocentric matter. Although social research often deals with current and relevant issues about people, a PhD is mostly about achieving an academic degree to qualify as a researcher. It is therefore more about one's own career. Such a self-reference was intensified by the pandemic (Neumann *et al.* 2022). Perhaps for the first time, I really looked at myself, my mental state, and my immediate surroundings. My apartment, with two rooms, a kitchen, a balcony, and a bathroom in the corridor, was in a state of disrepair. Winter wind once came through the cracks and blew out the candles. I had not taken care of my apartment any more than strictly necessary. Nevertheless, I liked this apartment—it was charming, and its grittiness meant some kind of reckless independency to me.

As social scientists Bayramoğlu and Castro Varela argue in their *Theory of Fragility* (2021), the pandemic has caused not only a major paradigm shift in social behavior but also the perception of daily urban life. They write how the experience of the pandemic questions hegemonic assumptions on all kinds of social levels and makes the fragility of "normality" visible and tangible (Bayramoğlu and Castro Varela 2021, 16). Among other things, they refer to important infrastructures, such as the health system, which risked collapse in many countries only

"because they [have been] neglected for decades" (Bayramoğlu and Castro Varela 2021, 16). Similarly, I had to realize that I had hardly spent any time in my apartment. My urban nomadic lifestyle meant that my apartment had more of a storage function. This was most evident in the absence of furniture and coziness. Even the kitchen was reduced to the bare essentials, not even featuring a spatula. On the one hand, this showed my trust in the certainty of supply provided by the city. On the other hand, it showed the late-modern, urban lifestyle in which public space constituted the actual living room.

The balcony became the center of my new small world. I asked myself what I actually needed to feel comfortable and how I could create a safe space that protected me from the toxic outside. The pandemic experience, which made one's own physicality present in the first place, sensitized the collective consciousness to the entanglements of human beings with their environment. This paradigm shift caused by the pandemic opened up a rethinking of how we reflect and talk about observations in the social sciences. However, as social researcher Kat Jungnickel noted, "while the senses are often central to an understanding of social processes, rarely do they feature in how we talk about society" (Jungnickel 2018, 494). My feeling was similar. Overwhelmed by the situation, so rich in "new" physical experiences, I retreated into my books, seeking answers for my situation and discomfort.

2) Locked in My Apartment, Locked Out of Research

I made myself comfortable on my balcony with a blanket—it was still quite cold in early March—and a pile of books. While my mind was unable to form a full sentence and instead was flooded by doubts about how to continue my PhD research, my eyes wandered off to the things that had accumulated on my balcony during the past years: empty flowerpots; pieces of wood from a slatted frame that I had once left there; a rusty bike with flat tires, and piles of unfinished projects. Caught in the uncertainty of how to proceed with my research yet released from deadlines, I returned to an unfinished project: building something out of wood. I started sketching, made small prototypes out

This hyperbole refers rather to my own business affairs. The hospitals were operating, the supermarket checkouts were staffed, and the garbage was being cleared by invisible hands, as usual. Although this was brought more to public attention, not much changed on the disregard of the care sector, or the exploitation of people "who do very important work for society but are inadequately remunerated for it" (Bayramoğlu and Castro Varela 2021, 17).

of paper, took measurements, and drew marks on the pieces of wood. Just for the sake of it, I started doing something myself. With a jigsaw in my hand, my attention shifted from my fears and doubts to the chair-like work piece that emerged on the 4 sq m of my balcony. I later realized that the process revealed an unexpected access to my field of research, which—until then—I had perceived as being outside of me. Now, covered in sawdust, I began to reflect on my own positionality.

Although social scientists have long been "making things in the process of making knowledge—notes, interviews, photos, drawings, arguments, charts, graphs, and presentations, among others," they form their knowledge mainly in text and speech, Jungnickel notes (Jungnickel 2018, 494). Therefore, she claims on Susan Leigh Star's work, *Ethnography of Infrastructure* (1999), that it is instead necessary to position oneself within the research subject "to get beneath the surface to see how it is made, who is and is not involved, and how it came about" (Jungnickel 2018, 498; Star 1999).

Until then, I had thought of "the research field" as something outside of me, which I could locate geographically somewhere else and socially as something else. For me, being enclosed on my balcony initially meant being excluded from "my research." But with the jigsaw in my hand and the sawdust on my head, my epistemic understanding of "the research field" shifted. I not only needed to reorganize my planned fieldwork but also epistemically rethink my methodological approach. Jungnickel argues to pay more attention to unexpected tools along the way of inquiry (Jungnickel 2013), in particular in the process of making knowledge (Jungickel 2018). 'Making' for her means approaching the research subject in a different way than through mere observation: "For many scholars, these methods [i.e. making] entail bringing the researcher into a closer, more intimate and responsive entanglement with research subjects" (Jungnickel 2018, 495). Through my clumsy DIY prototyping, I understood, that I was already "in the field." I was responding like local artists and civic hackers in so-called living labs to crises through "small-scale activities [to] redesign their urban area to be more liveable" (Cardullo et al. 2017, 3).

In the following, I will show how, through 'making', I approached my research subject while stabilizing myself. This allowed me to gain sensory access "beneath the surface," as stated by Jungnickel (2018, 498).

3) Stabilizing Uncertainty Through DIY

So far, I have outlined how the pandemic and lockdown experience made me rethink my research practice. The increased awareness of bodily, sensory micro-observations shifted my research practice from distanced observation to getting involved in the practices of the field. Doing something myself was not only a coping mechanism to overcome boredom during months of being locked in my apartment. Rather, it became a necessary stabilizing moment in coping with uncertainty, and for me, a perspective to approach my research subject in a different way. Therefore, I make use of the research on DIY cultures in the social sciences (Kreis 2020; Daily 2017; Atkinson 2006; Richterich and Wenz 2017; Cramer 2019; Foster and Boeva 2019; Voges 2017) and preliminary work on how people attempt to produce meaning through DIY practices (Jungnickel 2018; Ingold 2013). To this end, I would like to unfold what happens in 'doing something yourself' and to what extent DIY activities stabilize 'the self' in the mirror of multiple crises.

By designing something and sketching several drafts for my chair on a sheet of paper, I envisioned the next steps of my doing. With the pen in my hand, thoughts materialized about what shape my chair was supposed to have: the chair should have been cozy, maybe more like a lounge chair. I imagined myself sitting in a chair and working through my piles of books for my doctoral thesis. I often read several books crosswise, which then lie spread out around me. Therefore, I pondered further, I do not want the chair to be so cozy that I sink into it and cannot get up again. In sketching several designs for the chair, I created a feasible outlook for my own situation. I imagined myself sitting in my chair and profitably working on my doctoral thesis. Making a vision tangible and extrapolating my own ideal provided my desperate hanging around on my balcony with a horizon—something to aim for

(Bühler and Willer 2016). With a pen and paper, I gave myself a future perspective, and figured out the next steps to achieve this goal. The horizon, which still seemed far away, was divided into single achievable steps, and this gave rise to new questions, such as how I would like to connect the single wooden slats using the few resources I had at home.

Research on DIY maker cultures (Kreis 2020; Daily 2017; Atkinson 2006) has recognized that in Western capitalism, counter-practices such as DIY, making, and hacking serve to establish identity (Richterich and Wenz 2017). Building something with one's own hands, without special expertise, and with an imperfect but 'creative' result serves a notion of self-efficacy. This cultural imaginary is fed by stories of the counterculture movements of the 1960s in the United States of America, the sociocultural reform movements of the 1970s in Germany, alternative art spaces, repair cafés, DIY publishing, and punk zines. With my clumsy DIY tinkering, I aligned myself with those stories. Mentally, I sat down at a table with Louise Brigham, Enzo Mari, and Stewart Brand⁵.

Later, when I put my sawn pieces together, I could feel empowerment running through my body and straightening my back. Being involved in the creation of goods and not just consuming a mass product creates a personal meaning toward an object and self-identity (Atkinson 2006, p. 7). This is striking since basically in the consumerist cultures of Western capitalism, there is no need to produce anything yourself. Often it is even more expensive to buy the materials and tools needed to build a table separately instead of buying it from a global furniture supplier. The DIY practice lies in opposition to the act of simply buying something (Cramer 2019; Voges 2017). In fact, Atkinson states: "Global-scale mass production has put first world consumers in the position where necessities [...] can often be purchased for less than it would cost to

purchase the raw material to produce them themselves" (Atkinson 2006, p. 5). Thus, the central meaning and the actual value of DIY activities in Western consumerist cultures lie somewhere else.

The jigsaw rattled at ear splitting levels, and the wood shavings flew and spread over the balcony and on everything lying there. Doing something myself—sawing the wood, measuring and marking lengths. being covered in sawdust—is a material, messy process of negotiation, an "experience of becoming, between knowledge, agency, and material issues—of thinging" (Kjærsgaard et al. 2016, p. 13). The thinking, or as Kjærsgaard et al. say, thinging, shifts outwards. Again and again, I hold the wooden pieces up to each other to check my initial calculations on the object and—in most cases—to correct them. In fact, "this is not simply about seeing more, but about seeing differently through things" (Kjærsgaard *et al.* 2016, p. 12). Especially during the pandemic, where my view was limited to the four square meters of my balcony, I found it difficult to get out of my mental whirls. With my hands in the dirt, I stabilized my uncertainty. I had something to literally hold on to. I also had an idea of what my immediate future would look like, what my next steps could be, and what I could do myself to achieve them. I had concrete "problems" to solve: where do I get screws; where do I get glue, and how do I make a seat cushion? In tiny steps, over several weeks and with the help of friends, an object emerged. Above all, however, I stabilized my certainty that even in uncertain times, I had a social network of solidarity, care, and provision around me.

4) Local Tools for a Global Pandemic

COVID-19 has been a collective borderline experience on a global scale. It was perhaps the first crisis to significantly affect every population group irrespectively of origin and social classes⁶. Noticeably, global insecurity has been accompanied by a real boom of DIY activities. My

⁵ Louise Brigham (1875–1956) was a pioneering designer for DIY furniture in the early 19th century, Enzo Mari (1932–2020) was a communist designer from Italy who became known for his design series, Autoprogettazione (1974), on affordable DIY furniture, and Stewart Brand (born 1938) is the author of the Whole Earth Catalog (1986) that featured DIY counterstrategies for almost every aspect of life, such as building your own shelter or generating energy.

In comparison, climate change has yet to have a significant impact on some social classes. While many people are fleeing droughts or wars due to the consequences of climate change, politicians debate immigration checkpoints to keep the implications at bay.

own tinkering was only one example of a wide range of other activities. Supported by social media, DIY trends became popular, such as knitting, gardening on the balcony, renovating an apartment, baking banana bread, nurturing houseplants, or growing a sourdough starter. Looking at these activities, it is remarkable how low-tech and locally adaptive they were. Carpentry still requires a basic set of hand tools, but flour, water, and a kitchen are enough for growing a sourdough starter or baking banana bread. As ordinary as that observation may seem, the popularity of low-tech activities during the pandemic meant a major shift in the discourse of DIY cultures.

Until then, DIY in Western modernity, although associated with political empowerment and civil activism, had been more of a privileged hobby tinkering. Over the past 10 years, which have been marked by a whole series of crises (financial, refugee and climate crises, the pandemic), social scientists have observed how DIY has increasingly become a general social and economic demand in neoliberal systems (Daily 2017; Cramer 2019; Kohtala et al. 2020). Activist and cultural theorist Florian Cramer sees the mass diffusion of the DIY ethos as a necessary, stabilizing basic principle of fragile systems. He observed that "in neoliberalism and other systems with fragile institutions and infrastructures, DIY has become the norm" (Cramer 2019, 55). Through the DIY mentality, the creation of innovative projects and the assumption of individual responsibility, the "small businessman, the do-it-yourself conveyancer" (Stuart Hall 1986, p. 15, in Cramer 2019, 55) transfers his or her self-created cultural capital "into companies and institutions" (ibid).

Indeed, in the face of a global crisis and in the widespread revival of DIY maker cultures, a shift toward a locally-anchored consciousness was revealed. The lockdown regulations themselves varied from country to country and region to region, and so did the experience of the pandemic. Design theorists Yana Boeva and Ellen Foster see the importance of locality in cultural practices in the fact that each region has experienced its own challenges, as well as its own cultural and political development (Foster & Boeva 2019). In German-speaking countries, for example, a

wave of civil activism started out of a sudden "donation fences" popping up everywhere as a form of DIY urbanism (Ziafati and Oliveira 2023). These public fences allowed people to hang clothes, food, or hygiene items for those in need. The idea and practice of the donation fence can be traced back to a pre-pandemic initiative of the voluntary homeless and housing assistance at Hamburger Bahnhof (Klosa-Kückelhaus 2020). The fences were incredibly media-effective, and attracted new attention to low-threshold social engagement. Thus, self-organized initiatives set up new fences and cared for temporal infrastructures in many cities. Such a form of DIY urbanism provided a hopeful solution and encouraged solidarity. In a similar way, culturally contingent local DIY strategies arose in many places. They reacted to local needs, and built on culturally embedded knowledge (Foster and Boeva 2019).

As I have shown in these brief examples, the discourse on DIY has shifted once again. The DIY practice, a general Western paradigm for self-expression and (economic) performance turned into a way to cope with the pandemic. So far, the responsibility for prosperity, success, and personal well-being had been outsourced to the individual (Bröckling 2007; Prinz and Wuggenig 2007). Now, the responsibility to cope with social and ecological uncertainty and to make sense of the general situation is also declared a private issue. While the frightened collective gaze observed the global situation, individuals experienced their own scope of action within their own four walls. To make sense of the situation, crafting became a door to locally situated and embodied knowledge, which I will elaborate on in the following section.

5) Fermenting My PhD Research to Make Sense of the Pandemic

As pointed out in the example of building a chair, DIY activities have their own epistemic moments. This effected both my personal pandemic experience and the social infrastructures of my research. A careful consideration of my research subject shows that not only was the DIY discourse shifting, but also the ontological conditions of knowledge-making were being questioned. To unfold this final argument of

the paper, I would like to refer to another DIY activity that I, like many others, have witnessed.

Anyone who has opened the fermentation jar of a bubbling sourdough starter and sniffed its sour smell, anyone who has watched the yeast cultures become active and cause the flour mixture to bubble up, and anyone who perhaps has stuck their finger into the sourdough and felt the warmth that the microorganisms produced through their digestion, will have an altered awareness toward the non-visible and non-human actors with whom we coexist. While some may feel paralyzed by the world's affairs which turn the outside into a toxic, life-threatening environment, as experienced in the pandemic, others keep us alive—"even beneath my skin, 'I' am not alone: a grand microbial feast is going on inside me," as Dutch anthropologist Annemarie Mol notes (2021, 90).

Watching the bubbling life of the sourdough for hours and seeing how it grows eventually sensitizes "the other." Beyond conscious self-reflection, some kind of ontological consistency (Shildrick 2001, p. 104) emerges with non-human actors, organisms, and viruses. In it, we coexist, and have to get along with each other. However, Mol warns that "if care practices are not carefully attended to, there is a risk that they will be eroded" (Mol *et al.* 2015, p. 7). So the sourdough needs care, as do the social infrastructures of my research.

Estalella and Criado (2019), in response to the 2007–2008 economic crisis, called for an anthropology that "cannot be disentangled from the economic crisis and austerity-prone milieu in which they took place" (Estalella and Criado 2019, p. 147). Taking part in activist interventions in the city, such as squatting or "architectural guerillas," they found in their non-academic counterparts "the companions we lacked in our local institutional academic contexts" (Estalella & Criado 2019, 144). Treating their counterparts as epistemic partners (Estalella and Criado 2019, p. 149), they jointly developed a "new anthropology from scratch, a DIY anthropology" (Estalella & Criado 2019, 161). Their main idea of an anthropology from scratch was not to treat the counterparts as mere objects of investigation, but to jointly negotiate the ambiances of care in times of vulnerability and uncertainty (Estalella & Criado 2019,

159)⁷. I would like to follow up on this consideration. The fragile setups that were constituted during the pandemic, both on my balcony and with my hand in the sourdough starter, were epistemic assemblages of human and non-human knowledge production. Taking care of the social infrastructures of my research here means taking their epistemic agency seriously, and listening to the stories they tell.

The objects created during the pandemic materialize personal stories beyond headlines and hashtags. For example, situated knowledge was inscribed in my self-made chair. Along the way, I recycled a slatted frame and old bicycle inner tubes, and a specific pandemic knowledge emerged from a lack of alternatives, limited resources, and a social network of friends. DIY practices and the development of material skill sets (Shorey 2020, 123) foster the ability to tell stories beyond dominant narratives. However, Mol argues further, criticizing the linguistic-discursive framing of the sciences. According to her, "however, the most difficult aspect of writing about care is not finding which words to use but dealing with the limits of using words at all" (Mol *et al.* 2015, 10). But what does the pandemic taste, smell, and feel like? And what other ways of approaching and dealing with a late-modern, crisis-ridden reality does such a perspective change create?

The sourdough starter reminds me of my entanglement with my environment and, in doing so, challenges the dominant narrative of late modernity—the dichotomous separation between body and mind, between me and my environment. It becomes an "epistemic partner" as Estalella and Criado would call my non-academic counterparts (2019, 150), "that helps to shape the ways in which realities are perceived and handled" (Mol 2021, 1). With the sourdough, I ferment my pandemic experience and digest my research as a "vast, historically dispersed, socio-material collective" (Mol 2021, 91). A shift towards a more caring approach in the field of DIY research entails a commitment to the

This does not include human actors alone. Referring to Maria Puig de la Bellacasa (2017), Estalella and Criado considered their task as anthropologists as follows: "not just be concerned but 'to take care of the fragile gathering things constitute'" (Puig de la Bellacasa 2017, p. 45 in Estalella and Criado 2019, 154).

continuous task of maintaining and repairing the social (Lindström and Ståhl 2019), and integrating these as fundamental elements of knowledge production into the research process. Consequently, the establishment of a caring relationship with other beings alters the perspective on an ethnographic research practice.

Conclusion

In this paper, I wanted to show how the pandemic lockdown experience shifted both my perspective of, and my approach to, my research on prototyping alternative futures. Therefore, I discussed how I tried to make sense of the situation as a matter of care in the uncertain and fragile moment of the pandemic, when all social agreements were suddenly in question, and how I tried to make sense of writing a doctoral thesis during this time.

In reflecting on my practice-based PhD during the three years of the COVID-19 pandemic, I encountered a profound shift in both my research subject and methodology. Initially set to explore how urban living labs in Germany utilize the countryside to prototype alternative forms of living, my fieldwork was abruptly interrupted by the pandemic, forcing a radical rethinking of my approach. The lockdown compelled me to turn my attention inward, transforming my balcony into an unexpected research site where I engaged in DIY activities, such as building a chair from reclaimed materials. My own tinkering changed my perspective, and enabled me to "get beneath the surface" of DIY communities. In building a chair and in caring for a sourdough starter, we not only implicitly, but also explicitly, challenge "our designed—and social and political—orthodoxies" (Hunt 2011, p. 93). This pivot to DIY was not merely a coping mechanism – it became a meaningful epistemic practice of making sense in uncertain times. It allowed me to stabilize my mental state amidst the uncertainty, and provided a tangible way to engage with my research questions.

My DIY activities on the balcony mirrored broader societal trends during the pandemic, where many turned to hands-on projects as a means of asserting control and finding solace. This personal engagement highlights the value of embodied knowledge, and the importance of sensory experience in social science research. Through my improvised DIY prototyping on my balcony, I realized that I was already engaged with my research topic at an operational level, even though I was not yet in the field in the conventional sense of the term. The pandemic demonstrated the vulnerability of our social infrastructures, and the interconnectivity of human and non-human actors within shared ecological systems. Through the practice of crafting as care (i.e. with wood or a sourdough), I was able to gain insight into how to maintain the social in the face of crises – an experience that was shared by many individuals during that period, and formed a shared world of meaning (Göbel and Prinz 2015) across many balconies and kitchens.

Over the last few decades, debates on DIY cultures have mainly ranged between DIY as a leisure activity for individualization on the one hand, and a necessary strategy for survival on the other. In the face of late-modern developments and their resulting crises, another narrative has emerged: DIY as a fundamental and required practice of social care, engendering a sense of empowerment and belonging. This is consistent with the findings of research on DIY cultures, which emphasize the importance of making in the formation of identity and in resisting the effects of neoliberalism. On a small scale, within the confines of my own balcony, I was able to witness the same processes that are occurring on a larger scale within rural communities, where DIY initiatives are being employed to develop alternative housing solutions and low-tech, regenerative energy sources in order to address the challenges posed by ecological and social crises.

The pandemic, however, is merely one illustration of how crises fundamentally alter our modes of knowing, restructuring the relationship between humans and their environments. Consequently, changes resulting from the pandemic represent just one perspective for understanding shifts in knowledge practices within social research, indicating a broader social transformation which is precipitated by contemporary events and the cascading consequences of polycrisis. Central to this shift in perception is a call for feminist and/or queer construction practices that foster inclusivity, and shift the focus from

practices of assembly to practices of care, as Nerea Calvillo (2018, p. 60) points out. Decentering the human and instead emphasizing relationships fundamentally impacts the research condition. For Maria Puig de la Bellacasa (2019), such practices of care signify a continuous process of maintaining, continuing, and repairing the social⁸. She suggests that the concept of care has further ethical and affective implications. Our relationship with organisms is no longer perceived as an external entity to be managed, but rather as a material with which we share an intimate bodily and affective attunement (Calvillo 2018, p. 60).

In DIY research, this ontological shift becomes particularly evident as care is embedded in material knowledge practices, transforming the relationship between researcher and materials. Objects and organisms are no longer seen merely as tools or subjects, but as mediators and agents in a co-creative process. Referring once again to Calvillo (2018), such a caring approach to DIY research enables engagement that is not characterized by control and domination. Instead, DIY practices open up an intimate, haptic, sensorial access to our living surroundings. By turning the screwdriver, sourdough and knitwear into epistemic partners, we make sense of the social in uncertain times.

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2 Ibach: DIY Research on my Balcony

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⁸ She draws on Bruno Latour's concept of matters-of-concern (2005, 2008), which examines the manner in which abstract objects such as global warming are represented. In contrast to the conventional approach of regarding these objects as mere facts, Latour proposes that they should be treated as matters-of-concern (Lindström and Stahl 2019).

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