EVERYDAY DESIGNING FOR REVALUING

A project submitted in fulfilment of the requirements for the degree of Doctor of Philosophy

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May 2018

Declaration

I certify that except where due acknowledgement has been made, the work is that of the author alone; the work has not been submitted previously, in whole or in part, to qualify for any other academic award; the content of the project is the result of work which has been carried out since the official commencement date of the approved research program; any editorial work, paid or unpaid, carried out by a third party is acknowledged; and, ethics procedures and guidelines have been followed.

I acknowledge the support I have received for my research through the provision of an Australian Government Research Training Program Scholarship.

Melisa Duque Hurtado
May 2018

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ABSTRACT

This thesis proposes and demonstrates Everyday Designing for Revaluing (ED4R) as a methodology and practice that happens beyond design studios and beyond use.
My focus is on the stages in-between, after-use and before-reuse; when the value of objects has to be re-created. My proposal is based on my design research practice conducted at a second-hand charity shop (op-shop) in Melbourne, Australia, where I worked for over three years as a manager, volunteer, and design researcher.
These embedded roles and the flexible character of this site enabled me to develop a series of collaborative design interventions, to re-create the value of things donated and transform them into products to be re-used by new owners. Through this research,
I transformed my design practice from a 'traditional' industrial design orientation towards one that foregrounds participatory design (PD) and design anthropology (DA). This thesis presents Everyday Designing as an ongoing design process with revaluing as its intent. While revaluing extends the lifecycles of used things, it also involves creative forms of appropriation and improvisation as modes of designing within the socio-material routines at the op-shop. ED4R combines approaches from PD and DA through collaborations with staff, to explore forms of open-ended prototyping, to change existing systems and to work with contingent materials and situations. This approach included contesting, negotiating and deciding on how and what to revalue and why; challenging notions of planned obsolescence and reconsidering used things as resources for designing. I offer a theoretical framework, methodology and tangible illustrations of ED4R and, in doing so, seek to enrich practices and discourses of design and sustainability.

PREFACE

This thesis presents the journey of my practice-based design research, which allowed me to bring three paths together: the home I come from, my undergraduate studies of Industrial Design and my postgraduate studies in design and sustainability.

I grew up in Medellín, Colombia, where the lifecycle of things is determined not by supposed durability but by appropriation, reuse, and repair. This resourcefulness is a cultural trait ingrained in the relationships between people and things. At my home, I witnessed how everyday objects were reused, repaired or turned into resources that my mum would use to make other things, including art projects. Growing up in this environment showed me that things can have use and value beyond the one stipulated by commercial cycles.

This domestic education was further explored during my undergraduate studies of Industrial Design that were guided by a research focus on material culture and centred on the design of everyday-life products. I travelled with these personal, practical and academic principles to Melbourne, Australia, where I studied a Master's in design (by research), looking at how sustainability informs product design and commercial discourses. I became more aware of the complicity of design professions in cycles of planned obsolescence and overconsumption and this motivated me to look at sustainability beyond design studios and in everyday life. I registered as a volunteer in my local op-shop, where I became fascinated by the ways used objects, donated by their original owners, were revalued and transformed into second-hand products that someone else could reuse.

I entered into this op-shop space through thinking about how, with my background, I could intervene in systems to divert product paths away from landfill sites. Back in 2014, when I first started working in the op-shop and, simultaneously, the PhD, I was not aware of how my concerns about the accelerated disposal of things would become connected to the social aspects and relationships that these things became embedded in once they entered into this second-hand context. As I show in this thesis, the kind of practice that developed at the op-shop was a significant shift in my design practice in various ways. A situated approach to practice at the op-shop allowed me to move from the design studio where, as an Industrial Designer, I was used to designing specifications for products that were going to be used at other sites to instead develop a design practice which occurs where the things were located after their use, engaging in an everyday designing practice that was embedded in ongoing routines of revaluation. I joined these routines and became a revaluing practitioner myself.

By doing so, I developed a practice and theory concerned with experimenting and developing alternative ways of designing to move away from design and consumption models based on the 'brand new', planned obsolescence and immediate disposability. Besides Everyday Designing for Revaluing (ED4R) being a design research outcome, it is an invitation for everyday collaboration, to extend the material and cultural value of used things by engaging with circular economies, product reuse and with systems of recycling and waste management.

I present this journey with three components: with this thesis, with an exhibition, and a public presentation for examiners, supervisors, research participants and op-shop colleagues, family and friends.

I hope you enjoy!
Melisa Duque Hurtado

Melbourne, May 1, 2018

INTRODUCTION

This thesis proposes the notion of Everyday Designing for Revaluing (ED4R) to argue that what people make and do in their everyday lives to extend the life of things constitutes a form of designing. To advance this argument, I present and discuss the learnings from a practice-based design research project conducted at an opportunity shop (referred to as an op-shop in this thesis), operated by a charitable organisation in Melbourne, Australia, and dedicated to selling used items donated by the community. For over three years, and through different roles, I immersed myself in this site and collaborated with staff members in the everyday routines involved in running this charity shop. To guide my research and practice, I build on the notion of Everyday Design (ED) by putting it in dialogue with fields of Participatory Design (PD) and Design Anthropology (DA). This articulation provided me theoretical and methodological tools to make sense of the op-shop and the job of the people who work there, including myself, from a design perspective. Based on my collaborative research, I define ED4R as a series of creative practices done to transform used things unwanted by their original owners, into second-hand products ready to be reused by new users. Through engaging in these creative processes of revaluing, I moved my own understanding of design practice beyond the design studio and here, redefine it as an on-going and open-ended process of designing that is immersed in everyday life.

As I propose it, the notion of ED4R contributes to design disciplines in two ways. Firstly, it uncovers some of the often unseen and unspoken creative processes that people engage with to keep things functional and meaningful. Secondly, it shows how these everyday acts of designing represent a fertile ground for designers to collaborate with people to extend the lifecycle of existent things rather than producing new objects. Through this contribution, my objective is to present ED4R as a critical and political form of designing. As a critical practice, ED4R challenges the lifecycles of objects beyond how they were initially planned by designers and deploys creative processes to find ways of extending the cultural and material significance. As a political stance, ED4R addresses the complicity that the design industry has in the normalisation of planned obsolescence and over-consumption, and proposes alternative ways of designing; focusing on transitioning things from the end of their lifecycle into renovated cycles of revaluing and reuse. Overall, ED4R aims to acknowledge the creative work of people by improvising, appropriating and recreating the value of things, and frame these practices as a form of everyday designing located in-between designing-after-use and designing-before-reuse.

Research Approach

This is a PhD by practice which means that the development of my design practice enabled me to make sense of the op-shop as a research site by maintaining an analytical perspective. An approach to research that Laurene Vaughan has recently argued that, due to being situated, the 'nature of practice-based enquiry ensures that research undertaken will produce knowledge that both deepens understanding and provides tangible applications for practice' (2017, p. 10). Furthermore, this approach to research by practice has allowed me to embark on a transition from a 'designer-practitioner' to a 'designer-practitioner-researcher' (2017, p. 10), a transforming process that as Vaughan argues, entails developing a 'capacity to participate in critical reflection about practice while being engaged in the practice' (2017, p. 13). This thesis is the written outcome that articulates the ways in which my practice and analysis were combined and mutually constituted each other in what I present as ED4R.

My approach to investigating and practicing at the op-shop was guided by the following research questions:

What kind of design processes can be found in the everyday routines of the op-shop? And, how can a designer intervene in these processes orienting them towards revaluing?

To approach these questions, I joined the op-shop, which extended to different roles. I registered as an op-shop volunteer and six months later I applied for a position as the weekend shop manager. I attended the job interview, where I expressed my plans of starting the PhD and discussed the possibility of situating my research practice at the shop. The area manager and shop manager conducting the interview were open to the idea. As soon as I was trained as shop manager, I started the research. I obtained ethics approval from RMIT University (Appendix) and gained informed consent from the shop staff who joined the research as participants. The initial months of this process were crucial; I met volunteers and managers, found my own working routine at the op-shop and started to connect this routine to my research practice. Being a store manager on weekends, a volunteer during the week, and as a full-time researcher, gave me the chance to understand different layers of the second-hand charity business.

My immersion in the op-shop was helpful to gain a holistic understanding. On the one hand, as a manager, I became familiar with budgets, regulations and distribution systems. On the other, as a volunteer, I learned about the specificities of routines and of the different activities for processing donations to turn them into second-hand products for sale. The understanding of these two aspects of the op-shop allowed me to situate my position as a researcher in-between layers of knowledge, and within practices and politics of the shop. Overall, this immersion allowed me to understand our work at the op-shop from a design perspective and to make sense of it as a revaluing process.

By understanding the op-shop as an insider, I was able to as a researcher, identify opportunities for making collaborative design interventions to analyse practices and to introduce changes at different stages of the revaluing process. The analysis of these daily practices was continuously informed by theoretical concepts that facilitated the analysis of our activities; the socio-material interactions we were embedded into, and framed the possible methods that enabled me to mobilise the potential of collaborative and contingent interventions. As part of this process, my job started to inform my research and my research practice started to be developed through my job.

The anchor of maintaining an analytical perspective was key since my experience of doing practice-based design research meant that while the research was in constant dialogue with theories that informed the practice, it was not uncommon to be absorbed by the fieldwork for long periods. This, in my case, meant I sometimes lost sight of research directions as I was instead wholly dedicated to practical and situated activities. The pairing of analytical and practical stages involved a constant negotiation between desk-work for

reading, writing and analysing the experiences I had recorded, and fieldwork for sorting boxes of donations, pushing trolleys, as well as socialising amongst the clothes racks, at the till, by the bins, in corridors and during countless hours of morning and afternoon teas. I later came to understand that it is precisely the combination of these dual stages that provide the characteristic richness of practice-based inquiry as a research approach; which, beyond theoretical work and writing practice, engages with the social and material relations and in collaboration with the communities of practice it is developed with. That is why the analytical perspective provided by all of the literature referenced in this thesis played, not only a role in providing a framework for the theoretical contribution I wish to make but rather, beyond this inspiration, concepts were instrumental anchors to continually make sense of my practices at the shop. The theory and practice dialogue were helpful to open conversations with colleagues at the shop, who often challenged my attachment to these theoretical concepts as they explained to me their contrasting views from their experience of our routines. This continuous dialogue allowed us to become aware together of parts of our processes of revaluing that often remained unspoken, which implied, an academic, practical and personal learning. This process and the research approach are explained in detail in chapter 4.

To make sense of the outcomes obtained from this combined approach as an op-shop staff member and as a design researcher, I built on an existing notion of everyday design (ED) and appropriated it as an analytical tool and as a form of practice. The concept of ED was developed in the context of Interaction Design (IxD) by Ron Wakkary and colleagues to describe a series of creative practices that people engage within their everyday life, partly to appropriate and repurpose things. This concept is discussed extensively in this thesis as it has opened up the possibility in design studies to analyse these creative daily practices in depth. By drawing from ED, alongside theories and methods developed in the fields of PD and DA, I created an approach where I was not only able to observe and intervene, but also to account for the experience derived from my intertwined roles. This combination was useful in acknowledging the creative practices and tacit knowledge implied in the work of managers and volunteers, the ways in which I joined the op-shop as a design practitioner, and the practices that we developed together around the revaluing of things. Progressively, I was able to reframe everyday design and to move away from the existing proposal that sees it as an analytical tool to study the creative practices of users and as a framework to gain inspiration for the development of new products. Instead, I approached ED as an ongoing practice that is developed at the site of analysis, with other practitioners with their own areas of expertise and, in this case, oriented towards revaluing used things. To do so, Wakkary's work is fundamental to my work. In this thesis in particular, I draw from his and Maestri's introduction of the notions of appropriation and improvisation in ED (Wakkary & Maestri, 2007, 2008), which are concepts likewise central to DA and that form the basis of ED4R, which I will discuss in depth later.

Through my combined design research approach and by making everyday designing as my own practice, I articulated an understanding of ED4R as a series of creative and collaborative processes undertaken with people involved with the op-shop (as donors, staff and customers), aimed at transforming unwanted objects at liminal stages of their lifecycle, into second-hand products to be sold and reused. ED4R is a term that I define in this thesis to account for my practice as it emerged from three angles: from practicing at the op-shop; from analysing and reflecting about the op-shop experiences in a practice

of theorising; and from articulating both experience and theory in a structured narrative in this thesis. Thus, while ED4R refers to how I came to understand what I developed as my practice-based approach which allowed me to interpret what other staff do at the op-shop from a design research perspective, it is important to note that they did not label themselves as ED4R practitioners.

The processes of ED4R intertwined various scales of interactions between the socialities and materialities at the shop; these processes were not only oriented towards extending the lifecycle products for their reuse, but ED4R also involved systemic interventions to the routines of the shop, to assess, imagine and test other forms of valuing second-hand products.

Although ED4R is an on-going process, it is possible to identify several interrelated stages as it happens at the op-shop. The process starts off by receiving used objects as donations, then continues with the inspection of donations and the calculation of their potential values and their classification and distribution according to product categories. Afterward, things are processed to be transformed into second-hand products; at this stage, the revaluing process involves a series of generative actions that volunteers do to uncover latent values in used things and the ways in which these values are materialised through labels, packages, prices and displays. Once used things have become second-hand products, they enter into a series of social and economic transactions where their values are spoken and negotiated before starting a new life through reuse and further appropriation processes. Although the revaluing process that occurs at the op-shop follows established procedures defined by the organisation that runs it, these procedures are all the time questioned, challenged, redefined and further developed through constant acts of appropriation and improvisation. This approach to assessing and extending procedures constitutes the everyday politics of ED4R. As part of this process, managers and volunteers engage in designing for revaluing in their own ways and adapt the process to materials available and daily circumstances.

As I develop in this thesis, I suggest that a focus on practical engagement of designing by all kinds of practitioners along the varied stages of the lifecycle of things can have sustainable implications. The involvement of designers, users and of people in general interested in redesigning with used things increases the potential for sharing the responsibility of challenging and redefining the durability of the material culture we mediate our lives with. ED4R can also contribute to broadening the understanding of the practices of designing that can intervene at all stages of the lifecycle of products, beyond the design practice that focuses on 'new' stages of product development, production, manufacturing, and consumption. As well as accounting for the possibilities of extending the 'design studio' as a site for designing to where things are actually situated while in use or, as in this study, beyond use, by finding the second-hand shop as a 'design studio' to harness opportunities of designing for revaluing.

Thesis structure

This thesis develops the theoretical and practical framework of Everyday Designing for Revaluing through the following structure. Chapter one starts by presenting the key concepts that compose ED4R, the *everyday* as site of practice and analysis, *designing* as

a creative and ongoing sequence of acts that, in this case, are oriented towards *revaluing*. Which is presented as the intention, process and outcome of generating the value required to extend material, economic and cultural lifecycles of used things. Chapter two introduces the research context, firstly, by presenting different aspects of the second-hand context from the perspective of academic studies and industry reports, and secondly, by explaining particular aspects of the op-shop where I conducted my research, and the work of the volunteers and managers I collaborated with.

Chapter three presents ED4R as a continuous process made up of five interrelated stages that compose the op-shop routines: *inspection*, a moment when the potential future value of donations is uncovered and imagined according to their quality, condition, and affective characteristics; the orientation of things towards *paths of movement* that will take them in and out of the shop; *product preparation*, which corresponds to the stage when volunteers conduct a series of procedures to clean, repair, price and package donations to transform them into second-hand products; *accommodation*, the moment when second-hand products are displayed in the retail area of the op-shop; to stage encounters and interactions that enable *selling performances*, which, far from being the end of the revaluing process, represent the moment when customers take part in the revaluing process through a series of affective engagements with the op-shop's ambience, with staff and other visitors and with the second-hand products on offer.

The fourth chapter brings the previous chapters together and brings ED4R forward by presenting the methodology and design research methods that allowed me to immerse and to develop this practice-based approach within the routines of the op-shop. As I explain, the methodology of this project was based on an *ethnographic and participatory* framework that unfolded through a series of design *interventions* that were developed through *open-ended prototyping* and in collaboration with people and with *things as research participants.* This chapter explains how this methodology was put into practice through four methods that constitute my practice of ED4R in the op-shop: *facilitating PD workshops; video conversations as interventions; prototyping new systems of revaluing and product categories, and contingent and ephemeral interventions for revaluing 'on the move'.*

Finally, the thesis concludes by pointing to how this design research responded to its initial inquiry into the ways in which, as a designer, I could join the second-hand context to participate in its processes and to harness opportunities to explore ways of designing for revaluing. In the fifth chapter, I present seven principles that compose my transition from an industrial 'designer-practitioner' to an ED4R 'designer-practitioner-researcher' (Vaughan, 2017, p. 10). These interrelated principles are: routines, contingency, improvisation and appropriation, intervention, participation and politics. ED4R was created by blending ED, PD, and DA. A combination of scholarships that, as I will demonstrate with this design research, offered me overlapping and complementary theories and methods. To approach the 'everyday' at the op-shop with a curiosity to learn from emergent and mutually constituted encounters, with a responsibility to examine these encounters in dialogue with research inquiries, and with an analytical lens to account for these mundane experiences. A blend that enabled me to create ED4R, a design research practice that, while it emerged at the op-shop, with its methods and principles it can be taken into other contexts to continue to develop.

Throughout this thesis, I share my learning process and outcomes and engage with theoretical discussions concerned with experimenting and developing alternative ways of designing to move away from design and consumption models based on the 'brand new', planned obsolescence and immediate disposability. Finally, through ED4R I invite designers to continue to find ways of extending the lifecycle of things by participating in the circular economies, product reuse, and systems of recycling and waste management.

CHAPTER 1. CONCEPTUAL FRAMEWORK:
EVERYDAY DESIGNING FOR REVALUING

In my approach, Everyday Designing for Revaluing (ED4R) defines the process by which volunteers of the op-shop extend the lifecycle of things by transforming unwanted objects by their original owners into products that someone else can reuse. In this chapter, I first build on the notion of Everyday Design, developed in interaction design (IxD) by Ron Wakkary and colleagues, which I find useful for making sense of the practices deployed at the op-shop from a design perspective. As highlighted in the introduction to this thesis, to analyse the practices of everyday designing from the op-shop, I put ED in dialogue with PD and DA literatures and highlight the notion of appropriation and improvisation as key practices in ED4R. In doing so, I propose to extend the understanding of ED beyond its initial definition by Wakkary and colleagues as a source of inspiration for interaction designers to inform the design of new products and technologies. Instead, I advance a version of ED that joins a particular site of practice with its practitioners to engage in collaborative and contingent everyday designing. This shifts the focus away from designing new products to instead focusing on extending the lifecycles of existing second-hand products, and doing this as an ongoing practice of designing. Below, I briefly introduce the design research fields of PD and DA that I drew from to construct my theoretical and practice-based approach to ED4R at the op-shop, before outlining the ED approach and how I build on it next.

PD offers a scholarly space for design researchers who, like myself, orient their practices to designing with people in the context where design artefacts are used and, in many cases, are designed. The design research field of PD developed in Scandinavia, as part of a democratic movement in the early 70s. This involved the engagement of designers with workplace trade unions to learn from workers' use of newly introduced design computer technologies (Simonsen & Robertson, 2013). Design researchers invited workers to share their experiences and to voice their concerns and creative input to design workplace technologies together with designers (Ehn, 1988). PD's concerns have been political from the outset and today the focus of this field continues to be preoccupied with the role that the design practice can have in including the voices of people who interact with designed products and technologies.

To inform this collaborative and situated practice of designing advocated by PD, and to accommodate the material, relational and immersed approach to designing and researching with used things and op-shop staff that my research and practice entailed, I joined an approach to combining the PD with the emerging field of Design Anthropology (DA).

DA is a young field that provides a practical and scholarly space for researchers to develop ways of knowing that combine design and anthropological methods and conceptual frameworks to orient fieldwork collaboration, experimental designing and research analysis (Otto & Charlotte-Smith, 2013). DA has been consolidating for over five years and has two currents of thought. On the one hand, the possibilities of creating a space for the disciplines of design and anthropology to come together through a focus on material culture (Clarke &

Clarke, 2018). On the other hand, it has created a hybrid space for research and practice which has a focus on emergent, interventionist and future-oriented designing that is situated and informed through ethnography and theory (Smith & Otto, 2016). To develop ED4R, I have particularly drawn from the latter focus on DA to account for the continual, collaborative and circumstantial aspects of designing at a context where everyday practices are oriented to interrogating lifecycles of used things to extend their future possibilities of revaluation.

By drawing from the latter current on DA, ethnography has been central to my practice. Here I understand ethnography as a reflexive research practice that accounts for the immersed and collaborative experiences lived *with* others, not about others (Murphy & Marcus, 2013). A research practice that is aimed at being 'sensitive, contextually nuanced, richly detailed, and above all, faithful to what it depicts' (Ingold, 2017, p. 21). Particularly an approach to ethnography that 'takes as its starting point the multisensoriality of experience, perception, knowing and practice' (Pink, 2015, p. xi). An ethnographic approach that in its practice *with* people and things, and it's pairing *with* design practice, allowed me to learn from the everyday routines of the shop, to keep a record of the everyday experiences shared, and to draw from these experiences and recordings to articulate in this thesis a shareable account of how it was that the practice of ED4R emerged.

Bringing together the PD and DA approaches also allowed me to become aware of the social and material relationality of the process as a design outcome in itself. The tangible outcomes of circulating things towards paths of revaluation are evident through the number of donations processed for re-commercialisation and reuse. Which were only possible due to the conversations, negotiations and ongoing collaborations that op-shop practitioners engaged with in the development of daily working routines.

In these ongoing collaborations, donations occupied a key role and, as I develop in chapter 4, their agency as participants contributed in staff decisions to determine their paths as products towards revaluation. The attribution of such agency to the materials at the centre of social interactions is reflected in the use and understanding of the terms *objects* and *things* in this thesis. When I talk about objects, I refer to the contained materiality determined by the pragmatic functions that donations can have as instrumental products. When I talk about things, I refer to the personal and cultural meanings that donations carry with their materiality, from their marks of use to the value these acquire through appropriation and through the different experiences they become embedded into along their lifecycles. While the notion of objects facilitated an understanding of donations in terms of quality and condition, the notion of things opened the possibility to recognise and attribute affective aspects that are made and remade for donations through social interactions.

To establish this understanding, I build on Domínguez Rubio's (2016) proposition about 'the discrepancy between objects and things'. Things, he argues 'should be understood as material processes that unfold over time, while objects are the positions to which those

things are subsumed in order to participate in different regimes of value and meaning' (2016, pp. 61-62). A notion of things that accounts for a fluidity that Ingold refers to in his definition of things as being leaking rather than contained materiality (2012). Furthermore, as will be detailed in section 4.1.3 *Things as participants*, the notion of things in design research accounts for the socio-material interactions and negotiations that interrogate and create meanings for objects, but also for social situations (Binder et al., 2011). Which, in the context of the op-shop enabled an understanding of the material and discursive interactions involved in the valuation of donations for their re-commercialisation and potential reuse by drawing from their positions as objects and from the fluidity of their journey as things.

What I witnessed and practiced at the op-shop comprised everyday practices of co-designing that defined the chances for donations to regain their roles as objects and to continue their transformation as things. The engagement with these socio-material encounters fostered the creation of a growing knowledge for the shop team which, in the long term had implications in refining our personal and collective procedures of revaluing. Through this practical and theoretical inquiry, ED4R emerged and was consolidated.

I later came to discover that the kind of designing that ED4R proposes is open to engaging and generating collaborative and contingent ways of designing. This openness to address design practice as situated and in ongoing formation is coherent with a wider shift in design scholarship that accounts for and engages with the potentials of generating changes within unfolding daily activities. A practice of designing for which all the people and things present at the site of collaboration, contribute to the articulation of objectives, by engaging with emerging actions and interactions, and by continually evaluating sequences of granular daily outcomes.

This shift in design relates to what Marttila & Botero (2013) have discussed as an 'openness turn in co-design', which accounts for a design practice that is developed, fostered, negotiated and maintained by designers with other participants, who together address matters of common interest. Furthermore, Roth, Socha & Tenenberg (2017), have recently addressed this shift by 're-theorising the co in co-designing' as a process of 'corresponding' as a 'becoming-design' (drawing from Ingold proposition of design artefacts and those who intervene in designing them, being in a lively and continual dual formation (Ingold, 2011, 2013). Roth et al, argue that '[T]he design, as it is articulated, is in the process of becoming; and the designer herself is becoming in this process' (2017, p. 5). They further situate their position as 'a different approach to designing as a modality of making things [that] takes the flux of matter and life as its point of departure' (2017, p. 11). A flux in which as Seravalli points 'the designer, in particular, has to be able to leave space to others and to transfer ownership to the participants even if this implies that her role in the project becomes marginal' (Seravalli, 2013, p. 12). In this role, the designer is 'able to continuously mediate and respond to the evolving situation and to restructure its activities according to the emerging opportunities' (Seravalli, 2013, p. 13). This entails an openness that I addressed in my practice at the op-shop, and that comprised my own shift in designing. From an industrial design focus that was oriented to designing new products at design studios; through a participatory and ethnographic designing that was oriented to co-designing revaluing possibilities *for* and *with* op-shop staff and used products situated in the everyday.

1.1.1. Everyday as the site of practice

The notion of the everyday has served me in this research to situate design collaborations and ethnographic inquiries about people's practices and daily interactions with others and with the environments they move through, use, make their own and live in. In this thesis, the everyday is understood in terms of what happened at the geographical site of the op-shop, and as involving a mundane and ongoing temporality in which daily activities happen. In my research and practice, the everyday is moreover understood as a site with latent potential for political intervention, specifically in relation to the possibility of changing the course of everyday routines, of modifying the materiality that composes everyday sites of practice and analysis, and of fostering spaces for interactions with others. Therefore, I see the politics of the everyday in terms of the opportunities that the op-shop offered to challenge, negotiate and regenerate the lifecycles of used things; providing a fertile site through which to explore forms of co-designing oriented to sustainability.

The politics of the everyday have been previously highlighted in the work of anthropologists, who have emphasised the potential of everyday life as a site for activism that may contribute to sustainability agendas (Pink, 2012). Besides a sustainability orientation, the concept of the everyday politics has been recently invoked to account for the ways in which people subvert working expectations of timetables and activities to include social and leisure time to make working life meaningful in personal ways other than what the workplace dictates (Courpasson, 2017). These notions of the political in the everyday, as a site of activism and subversion in which practitioners can develop their own ways of working, help to make sense of the everydayness of the op-shop, which is characterised by a flexibility in which volunteers' personal choices have the potential to contest and complement the institutional guidelines through daily acts. This flexibility opens space for volunteers to spend time with colleagues, things, and activities of their own choice, in order to explore opportunities for everyday practices of revaluing that have sustainable implications.

In the politics of the everyday, a commitment to sustainability was understood as involving a design intent to intervene in the routines of revaluation of the shop. This intention involved a continual disposition to interrogate the durability of things but also to engage with the social relations that determined the decisions made with and for things. Sustainability in this sense was not limited to a triple bottom understanding (of social, economic and environmental aspects) but it was understood as a continual 'correspondence' with the world, that adapts to the contingencies of the everyday site where it happens (Ingold & Gatt, 2013). In this sense, that is comprising an everyday correspondence that resonates with the emphasis of DA on continual 'emergence' and 'possibility' (Smith et al., 2016). This also connects with what PD has discussed as 'infrastructuring', in order to account for the long-term relational, social, material and systemic work that is involved in immersive interventions that aim to introduce incremental changes in everyday sites of collaborative design research (Karasti, 2014; Karasti & Syrjanen, 2004).

Thus, the everyday in this research encompasses a site of design practice that has a political agenda to explore designing for sustainability in collaborative, mundane and continual acts. An everyday form of politics that has the potential to interrogate routines

and to foster spaces for dialogue to imagine and improvise forms of shifting the systems in which things can be revalued and devalued. Doing so also entails examining and extending the ways in which we can relate socially and culturally with the materiality that we live with.

1.1.2. Everyday Design as a form of appropriation

In the last decade, in the context of Interaction Design (IxD), Wakkary and Maestri introduced the concept of Everyday Design (ED) as a framework through which designers might make sense of the creativity with which people appropriate things as a form of 'design-in-use' (2007). For them, 'creativity is discussed as resourceful, adaptive, and emergent over time, manifest through actions and routines that appropriate artifacts and our environment leading to unique design situations and systems' (2008, p. 478). They engage a notion of appropriation that draws from Paul Dourish's earlier definition of appropriation in the context of HCI, as 'the way in which technologies are adopted, adapted and incorporated into working practice' (2003, p. 467). Which, they argued in ED is characterised by being an action that 'becomes personal, framed within our understanding of our situation and our anticipated future' (2007, p. 163). This Wakkary and colleagues suggest, facilitates 'the remaking through use of design artifacts and structures in ways that were often not intended' (2008, p. 479) as people appropriating things, 'create and redesign artifacts long after the products have left the hands of professional designers' (2009, p. 1). This idea of remaking led the authors 'to reconstruct the user in the sense of an everyday designer' (Wakkary & Maestri, 2008, p. 478) and to point to the sustainability potential that an ED framework offers, since it recognises the everyday ways in which people reuse, repurpose and repair things as resourceful forms of designing (Wakkary & Tanenbaum, 2009).

Appropriation in ED does not imply that objects are necessarily physically transformed. Wakkary and Desjardins explain that in the context of home 'most of the materials used [by families as everyday designers] do not need a physical transformation to be appropriated. Hands are, typically, the only tools needed to reuse artifacts, organise them differently or change their context of use' (2013, p. 256). As such, appropriation is fundamental for understanding ED in three main ways: as a concept for design researchers to analyse the ways in which people design-in-use; as a design practice undertaken by ED practitioners; and as a design goal in that interaction designers would aspire to create new product designs in ways which would increase the chances of being further redesigned through appropriation by future users (Wakkary & Maestri, 2007, 2008).

Furthermore, besides what the notion of appropriation has enabled in design interaction and technologies research to make sense of the way people transformed things while at use, appropriation has had a long trajectory in anthropology and material culture studies that is worth acknowledging, as it was also fundamental to my understanding of the practices of designing at the op-shop.

Anthropologists have engaged with the concept of appropriation to understand how people use material culture to shape their everyday life experiences (Courpasson, 2017; de Certeau, 1984; Miller, 1988; Pink, 2012). De Certeau (1984) proposed understanding appropriation as an everyday practice associated with the consumption of things in

relation to how people negotiate their identities and politics through the use and misuse of standardised, mass-produced products. Drawing from this notion, Daniel Miller (Miller, 1988, 2008, 2001) argued that consumption was not a passive relationship between people and objects, but should be seen as an active process through which people appropriate things to create personal identities from and with the places they inhabit and experience. Sarah Pink (Pink, 2012, p. 19) builds on the notion of appropriation to emphasise how people have the potential to resist or activate changes to their everyday environments. Courpasson (2017) has recently put the notion of appropriation in the workplaces in dialogue with the politics of the everyday, in order to make sense of the subversive ways in which people make their working routines meaningful to them -by taking time out to have a cigarette, to paint the nails at work or by having long breaks-, despite management policies and expectations. Thus, an anthropological notion of appropriation has been a key analytical category which has been used to understand the ethnographic research that reveals the creative practices that people consistently perform in their everyday lives as they go about interrogating things and making them meaningful to themselves.

Collectively, the literature from interaction design and from anthropology, enable us to understand practices of appropriation as simultaneously involving forms of everyday design. These might range from the transformation of commercial products (de Certeau, 1984), home decoration (Miller, 1988), family objects and spaces (Wakkary & Maestri, 2007), domestic places and practices (Pink, 2012), workplaces (Courpasson, 2017), and computing design systems (Dourish, 2003). This work shows how people appropriate things over time in ways that are situated in contexts and circumstances. Such forms of appropriation, determine not only the objects' functionality and meaning but involve uses and meaning that do not respond to the initial design purposes. For ED practitioners (in this case, op-shop staff), these forms of appropriation can be forms of ED that can open up possibilities to extend product lifecycles. I build on this existing body of work and bring the notion of appropriation to the context of the op-shop to account for the ways in which staff revalue second-hand products.

To explain the way in which appropriation becomes a form of ED through actions, I next discuss the role that improvisation has as a designing action that enables the ways in which people appropriate things at the op-shop. Thus, in the context of this design research, to understand ED as a form of appropriation, I account for how, through a series of improvisatory acts, during the daily routines of the shop, we (op-shop staff including myself) made used things meaningful again, oriented them towards paths of reuse and revaluing, and reflected 'on the spot' to make the decisions required for each of the unfolding situations. In the next section, I build on this argument and extend my analysis of ED4R by focusing on the notion of improvisation. To do so, I first introduce improvisation in this chapter from a conceptual angle, and later in chapters 3 and 4, I illustrate with a detailed account of the ways in which improvisation was central to the practices of design, undertaken at the op-shop.

1.1.3. Designing *by* improvising

Improvisation is a key concept in ED4R that allows me to address the ways in which practitioners at the op-shop implement their tacit knowledge and background skills to make

immediate decisions and to constitute a practice of designing for revaluing used things. Through acts of improvisation, the staff was able to negotiate between their personal approaches to revaluing and the institutional guidelines provided by the charity for processing donations. The ongoing character of improvisation in this context means that it is a mode of action that is aimed at improving situations by continually driving changes in iterative ways. To support this notion of improvisation as a designing act for revaluing, I draw from literature in design (Binder et al., 2011; Desjardins & Wakkary, 2013; Ehn, 2008; Schön, 1983), anthropology (Ingold & Hallam, 2007) and design anthropology (Gatt & Ingold, 2013; Rolfstam & Buur, 2012) that have accounted for the role that improvisation has, as a creative response to act in everyday situations.

Improvisation has been referenced in design as a characteristic approach to 'reflection-in-action' (Schön, 1983), as an 'ad hoc' response in ED (Desjardins & Wakkary, 2013), and as a 'mood' for designing and using things (Binder et al., 2011). Schön (drawing from improvisation amongst jazz musicians) proposed improvisation as characteristic of 'reflection-in-action', as he specified: 'Improvisation consists in varying, combining, and recombining a set of figures within the schema which bounds and gives coherence to the performance' (1983, p. 55). This notion of improvisation is helpful to understand the ways in which, at the op-shop, improvisation develops into a cultivated skill in which the staff is able to shift their procedures in inventive ways in order to adapt to the specificities of the daily contingencies they are faced with. A practice of improvising was common in the routines of revaluing at the op-shop, even if it was often taken for granted and rarely spoken about.

Moreover, from an ED perspective, Wakkary and Desjardins argue that the actions which constitute the process of ED do not need to be learnt, but are based on 'ad-hoc improvisations' that are 'spontaneous and temporary actions of appropriation that help families move from one activity to another' (2013, p. 256). They argue that families 'do not require particular knowledge or specific skills' to appropriate objects in the way they do. 'One does not need to learn how to leave things next to the entrance door, or how to hang things on a railing' (2013, p. 256). However, as I will demonstrate the improvisation that I observed and practiced with op-shop practitioners, the practice from which ED4R emerged and was consolidated differs, in that it is a kind of improvisation that is learned and requires specific knowledge and skills that are acquired through practice. This difference lies in thinking about learning as a continual correspondence (Ingold & Gatt, 2013) that, although it may be unspoken and implicit, it is nonetheless acquired from everyday practicing and experiencing.

Improvisation has been also referred to in design as a 'mood', Binder et al (drawing on Ciborra 2001) propose that by understanding 'improvisation as the "mood" of design, we can say that the infrastructuring mood of design is one that prioritises improvisation not only at project time but also at use time' (2011, p. 172). Similarly to ED, Binder et al, also point to the importance of improvisation in the unfolding tasks of designing that occur when things are in the hands of users. A stage in which Ehn has argued that a kind of meta-design happens in use, a 'design-after-design' that is open to being modified to respond to unforeseen forms of use and to forms of 'misuse' in which users extend the process of designing (Ehn, 2008). In this design research, I build on these continual forms of designing that were explored at the op-shop, often happened by improvising, and

opened spaces to consider our everyday routines of revaluing as an extended approach to *designing-after-use* and *designing-before-reuse*.

Furthermore, alongside my understanding of improvisation from my practice of designing at the op-shop, I build on the concept of improvisation as central to ED4R through anthropological theory. Ingold and Hallam addressed the fluidity and creativity of everyday practices of making as a work that is composed by acts of improvisation, as they argue, 'the creativity of the work lies in the forward movement that gives rise to things. To read things 'forwards' entails a focus not on abduction but on improvisation' (2007, p. 3). An orientation 'forwards' determines a focus on the future possibilities that are continually unfolding as opportunities to shift everyday activities with improvised action. Ingold and Hallam define four characteristics intrinsic to improvisation as a creative everyday practice. They point to the *generative, relational, temporal, way we work* (2007, p. 1). Four aspects of improvisation that encompass a kind of acting in the world that is determined by the way in which people respond to social and material contingencies. Through these improvised responses, practitioners invent the possibilities for '*keeping life going*' (2007, p. 15). A definition of improvisation that brings imagination into action to compose a continual formation of the site where it happens from the relations between the people and things it is embedded into. This provides a framing of improvisation that helps me understand and analyse how it is that the staff (including myself) processing used things at the op-shop, generate value by engaging with donations; by drawing from past social stories and by imagining futures of reuse to orient these things forward into paths of revaluing.

Gatt and Ingold pose the question for design anthropology of 'how might it be possible to design *for* improvisation?' (2013, p. 46). They explain how '[w]ith an eye trained upon the far horizon, the designer ushers in the present as the future's past, while the maker, following in his wake, is a master of improvisation, of making do with whatever is to hand' (2013, p. 43). Rolfstam and Buur also analyse improvisation from a DA perspective and propose three angles of improvisation seen in institutional contexts: as an act of subversion as a way of filling gaps and improving the institutional procedures in inventive ways; and as an invitation to challenge the design practice for it to consider improvisation as an opening for negotiations and a key trait of designing and designers (2012, pp. 85-86). Building on Gatt and Ingold's call and on Rolfstam and Buur's angles of improvisation, in this thesis, I emphasise the generative practice of improvisation that is at the centre of practices of designing for revaluing. In doing so, rather than providing an answer to this question, I suggest a shift in the inquiry to examine the possibilities of designing by improvising that as I argue open up possibilities to extend designing into stages after-use and before-reuse that have the potential of revaluing materials and situations on the spot.

I draw from the PD and DA definitions of improvisation that account for a practice that is intentionally and continually corresponding with the situations as these unfold as a form of learning and as a form of designing (Ehn, 2008; Gatt & Ingold, 2013; Rolfstam & Buur, 2012). In particular, I examine the ways in which this notion of improvisation allows op-shop practitioners to adjust their routines to the contingent circumstantial changes of the everyday. As I will show in chapters 3 and 4, improvisation at the op-shop constitutes a resilient practice that prepares practitioners to respond on the spot to the contingent needs of the moment. A practice that is essential in the performance of everyday routines and one that volunteers at the op-shop are continuously refining and inventing, contributing

to the composition of what I present as ED4R in this context. I use the term *designing* to refer to these practices, instead of *design* as proposed by Wakkary and colleagues, for two reasons. First, to account for the processual character of the routines, through which the processing of second-hand donations occurs in this context. Second, to recognise designing as a verb that can be practiced by everyone, which, as argued previously by Binder et al, has the potential of opening design 'as a mode of inquiry rather than as a professional competency or a particular domain of expertise' (2011, p. 183). And that, as developed in this thesis, has the political potential to account for a form of designing that happens in the everyday life, beyond and alongside the practice of designers.

As a theoretical framework, Everyday Designing permits the analysis of practices in which people respond deliberately and creatively to individual and collective intents through acts of improvisation to constitute particular forms of appropriation. As a design framework, the practice of Everyday Designing is always different, depending on the circumstances of the context where it happens; the practices of the context; the practitioners performing them; and on the intentionalities that the practices respond to. In the context of this design research, I practice and analyse Everyday Designing at the op-shop by collaborating with staff in the creation of value for second-hand products; and in establishing the conditions for processing products for their re-commercialisation and reuse. In this context of the op-shop, I define the intent of Everyday Designing in terms of Revaluing, which follows

1.1.4. Revaluing: from used things to saleable products

Revaluing is a conceptual tool used in this study to analyse processes and outcomes of value transformation for things that are transitioning from unwanted positions where they are at risk of devaluation, to renewed positions that stretch their value and durability. At the op-shop, this process comprises the ways in which staff recover, appropriate, renovate and negotiate around things in order to generate value with them. In doing so, the staff engages in recognising the historical, cultural, material, functional, economic, and affective value from donations, to communicating this to possible customers and future owners.

To understand how revaluing occurs, I engage the concepts of value and values to account for the combination of attributes that become condensed as the staff uncover, transform and recreate material and cultural worth with and for used things. The notion of value is used in this design research as a conceptual category that is created collaboratively and that includes personal and cultural values that manifest in material and discursive forms. Thus, revaluing is constituted through socio-material interactions and becomes visible in the ways in which donations are prepared and presented for others who engage by appreciating, buying and reusing them. The distinction between the notion of value and values that the anthropologist David Graeber proposes was helpful for me to understand the relation between the material value attributed to things, and the human values that become embedded in determining things' value at the op-shop. As he argues:

'The value of "values" in contrast lies precisely in their lack of equivalence; they are seen as unique, crystallised forms. They cannot or should not be converted into money. Nor can they be precisely compared with one another.' (Graeber, 2013, p. 224)

Given the retail context of this study, value and values were both central in the routines of everyday revaluing; including a combination of social values concerned with altruistic agendas of the charity, with personal values that drive action of donors, volunteers and customers who engage with these things and, in addition, to economic value that works as symbolic and material medium for exchange. Which although, as Graeber points, is problematic as the prices attributed to things in the process of revaluation do not represent all the possible environmental values and the human values implicit in their creation and past stories, nor the work involved in the maintenance and care of things during their lifetime. However, in this context, the price becomes a key medium in the interactions. These interactions, nonetheless, involved sharing and creating other non-economic values that became explicit in the memories of those encounters for the people involved and in the consequential altruistic outcomes. Thus, while here the price does not encapsulate all the other values, it does facilitate an entrance for communication, meaning creation and negotiation.

Furthermore, the analysis of the life trajectories of things and their value transformation that has been developed in the anthropological analysis of material culture has also been fundamental to my understanding of value in this context. For instance, Appadurai's work about 'commodities and the politics of value' in The Social Life of Things has formed a fundamental part of my understanding on how the value of things change as these move along different stages in their lifecycles and as these are attributed different meanings across the cultural contexts that they move through (Appadurai, 1986). Moreover, Lambek argues for a notion of the value of things that goes beyond the dominant market view focused on economic factors, to also uncover other values embedded in peoples' acts of appreciation and in the social life stories that are expressed through historical and cultural narratives (Lambek, 2013). Lambek explains the relationship between these different types of value in terms of 'incommensurable ethical value' and 'measurable market value' as 'a project of mutual creation, as something collectively made and remade' (2013, p. 222).

This means, in the context of the op-shop, that besides the solely material characteristics of things, given through their economic, physical condition and functionality, things are imbued with and within cultural narratives that make them meaningful by the brands that produce them, the people who buy and utilise them, and by those who appropriate them to extend their uses and meanings.

Moreover, in PD the question of values has been addressed from an angle on human 'systems of appreciation' (Iversen, Halskov, & Leong, 2012) that come into play as 'acts of judgement' (Schön, 1983) that challenge, develop and negotiate contrasting and conflicting views in collaborative design (Gronvall, Malmborg, & Messeter, 2016). From this design perspective, human systems of appreciation manifest in the creation of stories that trigger actions in which 'values serve as hypothesis' (JafariNaimi, Nathan, & Hargraves, 2015, p. 97) to intervene and transform situations. An intervention in which values are at the centre of discursive and material interactions and, in the creative expressions of participants involved in the designing, who in this case, draw from latent value in donations to reclaim and redefine their cultural worth through acts of designing for revaluing, in doing so, contesting, sharing, extending and appropriating the value of things in liminal stages of their lifecycle by making them meaningful again.

Drawing from these design and anthropological notions on value and values, in ED4R, these are understood as conceptual categories of appreciation that are recognised and made explicit by the people processing donations in spoken, visual, and material languages; using things to hold meanings, and creating stories to present things in ways that trigger interactions with shop visitors, future customers, and potential new owners.

1.1.5. Chapter summary: ED4R a creative practice beyond-use

This thesis proposes ED4R as a design practice that situates beyond design studios, beyond-use, and beyond the specific sites destined for things once their lifecycle has come to an end. ED4R builds on the notion of ED to point to the active character of users and their ability to utilise and think of objects beyond the intention of the designers that made those objects. ED4R further goes beyond the potential that Wakkary and colleagues attributed to ED as a source of inspiration and as insight for designers to bring into their design studios to create new products and technologies. ED4R shifts the focus to call for an alternative approach which attends to the complex socio-material interactions that are at the centre of designing for extending the lifecycles of things without the need of creating new products. While I acknowledge that the newly designed devices that may emerge from ED can incorporate sustainable features, since such new designs aim to be open for appropriation by users, I propose a further and parallel step needs to be taken. This is because I believe the sustainability potential of ED as proposed by Wakkary and colleagues has similarities with other design frameworks such as 'cradle-to-cradle' (McDonough & Braungart, 2002). These approaches invite designers to consider closing the loops of conventional 'cradle-to-grave' linear processes of production, consumption, and disposal to which most design practices still contribute to. Nevertheless, these forms of closing the loops still engage in the production of newly designed products. My proposal for ED4R instead puts the notion of ED developed in IxD in dialogue with PD and DA to consider the appropriation of objects as part of an alternative design process in which designers can engage with users and non-users in participatory processes of 'designing for design-after-design' (Ehn, 2008, p. 98). Altogether, the notion of ED4R that I proposed in this chapter emerged from a practice that was oriented not *for* or *by* designers, but *with*, in this case, revaluing practitioners from the op-shop. That occurred in a site where things are gathered after they have been left behind by their initial owners, and where they start to be transitioned into renewed cycles of reuse. Situated in-between stages of *designing-after-use* and *designing-before-reuse* after things have been designed, manufactured, commercialised, consumed, and used. In other words, ED4R is a socio-material process of designing that is involved with generating possibilities to move things *from grave to cradle.*

CHAPTER 2. RESEARCH CONTEXT

This chapter introduces the second-hand economy and the op-shop where I conducted my design research. In this chapter, I explore general aspects of the second-hand economy and the op-shop where I conducted my design research. The chapter starts with a brief explanation of my initial motivations and my research agenda in this context, which revolves around the articulation of a design framework that is politically inclined to collaborate with people in extending the lifecycle of existing things. Then, I build on industry reports and academic studies to make a case for studying the second-hand market from a design perspective and, for using this context as a platform for advancing agendas of design for sustainability. However, as I will explain, there is evidence to suggest that donating to charities can accelerate cycles of consumption as circulating things is facilitated by op-shops. Furthermore, the increasing corporatisation of second-hand retailers can generate tension with customers' and volunteers' altruistic and monetised involvement. Thus, associations between sustainability and the second-hand economy should not be taken for granted. The final section presents the op-shop that was the site of my design research. I explain first, general aspects of its location and operations, and then specific aspects of the space and the work of volunteers.

Initially, the reason why I decided to focus this design research on the second-hand retail context, was as presented in the introduction, to find a way to orient my industrial design background to a site through which I could understand the opportunities that emerge at the end-of-cycle of designed commercial products when their initial owners do not find them useful anymore. At the time which these products were donated to op-shops offered an ideal opportunity to explore this question. Given that this context is composed by sites of second-hand exchange and social engagement where people and things meet and work, I argue that it offers a fertile space in which to develop and advance agendas of design for sustainability. After four years of research, and of carving out a practice of designing at the op-shop, I reflect upon my learning and the new knowledge that this work has produced. In this chapter, I argue that the second-hand context represents a fruitful site for exploring non-object-oriented aspects of design practice and is, moreover, a site through which it is possible to move away from paradigms focused on producing new objects. In particular, this thesis shows how, through my design research at an op-shop, I was able to articulate theoretical and methodological frameworks of ED, PD, and DA to advance design agendas for sustainability. Rather than being based on the design and production of new sustainable products, my agenda focused on collaborating with people to extend the social value and material lifecycle of existing things.

2.1. The second-hand context

Recent industry reports have highlighted the constant growth of the second-hand economy, and the potential it represents both for householders and as a waste management system for suburbs. A report commissioned by Gumtree, a widely used online second-hand retail site in Australia, explains that second-hand markets can reactivate goods that are not used and bring extra income to families. Calculations cited in the report indicated that the second-hand economy could bring (at the time of the study)

$5,400 AUD to each household in exchange for products they do not use anymore; and nation-wide unwanted goods have an estimated value of $43.5 billion (Gumtree Australia, 2017). Similarly, a report produced by IBIS World about the market of 'antique and used goods' in Australia, explains how this sector represents a growing industry in Australia, which is said to be expected to rise due to the 'uncertainty regarding the stability of the domestic economy, volatility in consumer sentiment and growth in the unemployment rate have led to stronger demand for used goods' (IBIS World, 2017, p. 4). According to this report, Cash Converters International Limited, an Australian owned company, founded in 1984, has most of the market shares in the 'Antique and Used Goods' sector, with an estimated 8.5%. Salvos the retail wing of the Salvation Army organisation, occupies the second position with a 6.8% of market shares. The Catholic charity, St Vincent de Paul Society, follows third with Vinnies Shops representing 6.7% of market share. This industry of antique and used goods is expected to face steady trading conditions over the next five years through 2021-22, with industry revenue forecast to rise by an annual 1.2% over the period to reach $2.8 billion.

Design studies have suggested that in second-hand sites, designers can find forms of 'unplanned durability' in the ways that 'hidden meanings and little-known forms of value' become visible as users and 'curators' extend the lifecycles of second-hand products' (Boradkar, 2012, pp. 224-225). These forms of unplanned durability can further illustrate alternative modes through which industrial design practitioners can explore ways of challenging planned obsolescence (Burns, 2010; Chapman, 2010; Fuad-Luke, 2010; Park, 2010). Besides there being a design orientation to extending the durability of used things, the changes in use of products have also been addressed from a material culture perspective that has likewise pointed to second-hand contexts as potential sites to uncover the 'raw creativity of social actors in inventing the conditions for the birth of value' (Miller, 2000, p. 82). This implies that in the context of ED4R, the conditions through which value might be generated in circumstances in which existing things are circulating beyond use, entails renewing their material and cultural meanings. A renewal that, at this stage of a product's lifecycle, is overseen by people processing them for revaluation and by the new owners who acquire them for reuse.

Other studies have addressed the role of second-hand retail in consolidating alternatives to 'brand new' consumerism for waste reduction and as a household strategy for saving money. Ruth Lane, an Australian scholar who has studied the second-hand economy in Melbourne, has pointed out the role that second-hand markets play in mediating reuse as a substitute to buying new products (Lane, Horne, & Bicknell, 2009). Moreover, Lane et al have argued that sites processing second-hand products are an alternative to recycling strategies for dealing with waste. In particular, they note charities are sites that 'may currently be more significant than the commercial waste management sector in facilitating circular economy within Australia' (Lane, Gumley, & Santos, 2015, p. 498). Although not the original intention, op-shops have become associated with sustainability and donating to and buying from them is seen as a way of participating in the circular economy. Aneta Podkaliska, another Melbourne based media scholar, has investigated thrift practices through empirical studies at charity shops and argues that this sector has been gaining momentum as a potential alternative through which to mitigate issues around environmental sustainability, as well as consequences of the 2008 economic crisis (Podkalicka & Meese, 2012; Podkalicka & Potts, 2014; Podkalicka & Tang, 2014).

Previous studies about charity shops have highlighted the positive aspects of second-hand retail and the practices of reuse they enable. However, other aspects intrinsic to second-hand retailing, related to the practices of devaluing, discarding required for revaluing and with the corporatisation of the charity sector, could be further examined. Op-shops occupy a complex position between sustainability and over-consumption. The reinterpretation of donating used items as being a sustainable and altruistic behaviour can reduce the time people utilise objects or wear clothes and in turn fuel the consumption of more products. A study about the process of donating belongings of elder relatives found that op-shops provided people with a convenient and 'moral' outlet for unwanted items (Lovatt, 2015). While many of the donations are indeed saleable, a significant number of things at op-shops cannot be revalued due to safety and legal regulations. Volunteers and staff from the op-shops are faced with the responsibility of processing volumes of contaminated, incomplete, broken, and illegal things that have to be discarded. In December 2014, for example, the Australian Broadcasting Corporation (ABC) published a report explaining that op-shops were going to lose millions of dollars 'disposing of rubbish and unusable donations over the Christmas' season (Williams, 2014).

Another challenging aspect of op-shops is their increasing corporatisation. From being charitable shops, run by religious and altruistic organisations through the work of volunteers, they have become social enterprises that adopt corporate management and mainstream branding and retail strategies as mechanisms to advance charitable causes. As a result, they have become a hybrid of a commercial outlet, where commercial strategies from mainstream retail are applied (often in flexible and informal ways) to sell second-hand products to be reused. This transformation has brought several tensions. The introduction of salaried retail managers to run the shops has made them economically viable, efficient and profitable. However, the corporate strategies that store managers implement to deliver outcomes expected by the organisation, challenges the traditional role of these sites in local communities. First, the incorporation of mainstream retail and management strategies that have been aimed at standardising the characteristic, eclectic aesthetic into a uniform brand image and shop layout that has changed the experience of visiting these sites and has made them similar to a mainstream shopping experience. Second, the pressure to meet financial targets generates a tension between the working expectations that the organisation poses on volunteers' altruistic work, which can become systematised and measured in relation to economic goals. This may ensure the sustainability of the charity as a business, but it can also contradict notions of environmental sustainability as it becomes embedded in world-views oriented to economic growth through the means of encouraging consumption.

However, despite the attempts to standardise the procedures and looks of op-shops, these sites still occupy a flexible space in the retail context where, as mentioned above, a variety of purposes come together. These include extending the cycles of used things, contributing to circular economies and opening spaces for daily negotiations between people donating used objects and those processing products for sale, with others buying them for reuse. Appelgren and Bohlin highlight the role of that sites of second-hand exchange occupy as a 'middle ground' in the market, which determines the way in which used things are 'managed, valued and desired in and through circulation, and how that circulation creates socially embedded objects that potentially engage people aesthetically, morally, socially, economically and ecologically' (2015b, p. 5).

As I embedded myself into researching and practicing in this 'middle ground', I witnessed how the processes of circulating second-hand things derive from ongoing collaboration and negotiation, in an endeavour that I frame as Everyday Designing for Revaluing (ED4R). With ED4R as an analytical and practical framework, I provide an account of how the interactions that unfold in this middle ground by those donating, sorting, valuing, pricing, displaying, selling and buying are all involved in the unpacking and crystallising of value. Interactions that result in forms of revaluing that are not only seen through the materials at the centre of the negotiation (donated used things) but also in the social encounters between volunteers and visitors to the op-shop. I argue that this dual-revaluing on a material and social level have the potential for fostering spaces where designers can engage in addressing forms of designing for sustainability.

Figure 1 – The op-shop

2.2. The op-shop

My research was located at a Vinnies op-shop in Melbourne. Vinnies is the brand name of a chain of shops run by St Vincent de Paul Society, a Catholic charity organisation in Australia since 1854, and today provides social assistance to 2.2 million people a year in Australia (IBIS World, 2017). There are 650 Vinnies shops around Australia, and 104 of them are located in Victoria. I conducted my research at a Vinnies op-shop in the Eastern Suburbs of Melbourne, located in the northern residential areas of the City of Boroondara, eight kilometres east of Melbourne's CBD. The Australian Bureau of Statistics defines this suburb as a wealthy area with a 'median weekly household income of $1,811' (2013). This high economic status is reflected in the quality of the items that are brought by donors and that meet the expectations of mostly middle-class customers who are after good quality products. At the time of research, this shop had 85 registered volunteers, a week-manager, and two weekend-managers, and operated seven days a week,

during business hours. I collaborated with 30 volunteers, 16 women and 14 men, aged between 40 and 80 years old. The selection of research participants was made according to their roles and responsibilities at the op-shop; these were the people in charge of making key decisions at each stage in the process of revaluing donations and transforming them into second-hand products.

Vinnies op-shops are social enterprises that sell second-hand items that have been donated to them by the local community. The shops are run by two or three managers who occupy paid positions and take full responsibility of operating the shop according to institutional standards and economic expectations. The practical work involved in processing and selling the donations is done by volunteer staff. Most volunteers, as well as donors and shoppers, live in the area. The ages of volunteer staff range from 16 to early 90s and their reasons for engaging in volunteer work are different. Some volunteers are motivated by altruistic and religious duties; most young volunteers work as part of community services they are required to do as part of high school requirements, and several others do it as part of 'mutual obligations' they have to meet in order to receive income support from the government. In terms of permanence, some volunteers have worked at the shop for over 20 years, while others only work for a couple of months as part of school community programs.

Figure 2 - Vinnies Badges that the volunteers wear

The number of volunteers working on a specific day and the activities conducted vary during the week. Some days the shop can operate with a small team of five people (e.g. four volunteers and the store manager), which reduces daily activities to basic operations required to keep sales running, while other days the team could have double the staff, which makes it possible for them to conduct more activities. Each volunteer has specific tasks based on their preferences, skills, and agreements made with the store manager, however, it is common to find volunteers engaging in activities different from those assigned to them, depending on circumstance. For example, when a volunteer is on leave,

their area is covered by other volunteers to ensure products are not accumulated and continue being processed for revaluation.

As mentioned earlier, current transformations in the second-hand economy have affected charitable businesses creating several tensions in the ways they operate. These tensions were also witnessed at this op-shop and influence the politics that regulate its daily routines. Despite attempts to standardise prices and systemise the processes according to corporate agendas, each volunteer perceives the value of donations differently and assign prices to them influenced by personal judgement and convictions. These differences in valuing and pricing comprises some of the individual everyday politics of revaluing that will be further detailed in chapters 3 and 4. It relates to the ways in which, while some volunteers see op-shops as commercial platforms that offer bargains and prefer to put low prices on products; others acknowledge the role of charity shops in helping people in need and price products based on the need of making sale profits; and other volunteers consider that some donations could have the value of an antique and price second-hand products accordingly. Op-shops have also implemented strategies to prevent the donation of unsaleable objects as a way to minimise the costs invested in their disposal. At this particular shop, the implementation of these measures has generated tensions with donors who are surprised when volunteers reject donations, which do not meet quality and safety standards and thus, are considered unsaleable.

2.2.1. The op-shop in practice

This section frames the op-shop as a site for conducting practice-based research around sustainable agendas, and in particular as an area where the life of existing things is extended. First, I explain the practices in which volunteers engage as part of the revaluing processes, before showing how these practices are distributed across the shop layout.

The work of volunteers is organised around specific activities and spaces related to the processing and selling of donations. For analytical purposes, using the everyday language of managers and volunteers, the op-shop can be divided into three main areas: 'the driveway', consists of a garage that has been adapted to receive donations and classify them according to the spaces where they will go to be processed; at the 'back', which consists of a series of rooms where donations are processed according to product categories, and includes the manager's office and the volunteers' kitchen. And 'the shop', which is the area where donations are taken once they have been processed, to be sold as second-hand products. The layout below presents these areas:

Next page Figure 3 - 4 - The driveway, where donations are received, and the process of sorting and classifying them starts to separate things by product categories to distribute them to dedicated areas for storage and valuation.

Figure 3

Figure 4

Figure 5 (left) - The main corridor that connects all the areas of storage and staff working rooms at the 'back'. The corridor is used to distribute pre-sorted donations, for staff circulation and is where the main internal heater is. The corridor also serves as the storage and pricing area for picture frames and mirrors.

Figure 6 (top) - The staff room is where volunteers store their belongings, sign in the attendance book and have their tea and lunch breaks. The tea room is also the area where monthly and team meetings are held and where most of the politics of working at the shop are communicated.

Figure 7 - The electric room and storage are for ornamental flowers and vases for shop display, and for pieces of furniture that have either been sold and are ready for pick up or have been donated and are too fragile to move long distances.

Figure 8

Figure 9

Figure 10
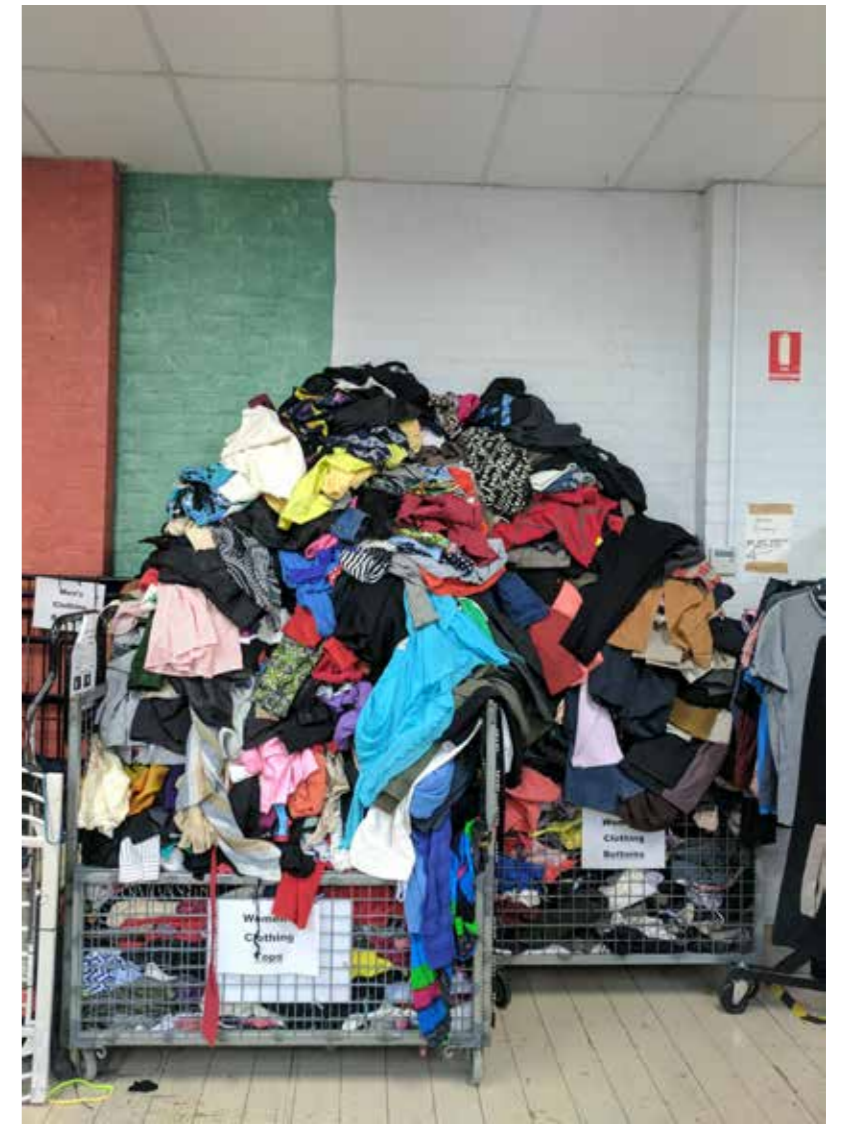
Figure 11

Figure 12

Figure 13

Figure 8 - The area where books are inspected and prepared for sale is composed by shelves, banana boxes with books, which are pre-sorted at the driveway, and tables to price them.

Figure 9 - In between the areas of books and toys, is the storage and processing area for furniture.

Figure 10 - Toys are stored on donated shelves that have been appropriated for shop use and in plastic tubs. The working table is also used to process shoes and handbags, which are stored beside it in built-in shelves.

Figure 11 - Pre-sorted clothes are stored in cages that separate clothes by gender, and by tops and bottoms to facilitate the tasks of sorting and pricing.

Figure 12 - In front of the furniture, shelves of 'treasures' have displaced what used to be the area for the storage of bedding, which has been moved next to the clothing storage.

Figure 13 - The long wall of the back room is divided between the storage of books, shelves of treasures, two desks, and plastic shelves dedicated for the storage and valuation of jewellery.

The work of volunteers is usually named according to actions, type of items processed, and the shop area where it is undertaken. For instance, receiving and sorting donations at the driveway, pricing women clothes in the clothing area and putting bric-a-brac out in the shop. During the first stages of my research, I classified the work that managers and volunteers did to revalue used things in three key stages: sorting, pricing and displaying.

Sorting is the process by which things donated to the op-shop are received, inspected and classified according to specific product categories. Goods are received at the driveway door (fig. 14), which is the principal contact point between donors and volunteers. At this stage of the process, volunteers make quick assessments to identify the things that can be accepted, and the ones that should be rejected. This inspection pre-sorts to assess things and their potential future value, and then, according to this initial estimation, goods are classified into product categories. Things that do not fit into any product category or that do not meet the standards of this shop are classified according to the sites where they will go which, depending on their quality can be: a Vinnies warehouse, other Vinnies shops, or overseas markets. When things do not fit into any category or cannot be sent anywhere else, staff put them in bins that go to recycling facilities and to landfill sites.

Pricing is a process in which things are prepared to be sold. In general terms, the process involves ticketing, labelling and packaging donations to turn them into products for sale. Pricing is done in rooms and areas that have been adapted to store and process specific types of donations that correspond to product categories of 'the shop': the electric room, the bric-a-brac room, the media area, books, jewellery, furniture, toys, shoes, clothing, and bedding. Volunteers guide their pricing processes according to general management instructions, pricing lists made at the shop, found in printed commercial catalogues published by stores or by looking for items in second-hand online markets such as eBay. Final decisions on prices are also influenced by personal criteria, previous work and life experience of each volunteer. The routines of pricing include a range of tools and materials provided by the institution, such as pricing guns and price tags (fig. 15). Although prices seem to be fixed and stable, once in the shop, the prices of products tend to be flexible and open to discounts and negotiated as part of informal practices around bargaining.

Figure 14 - The receiving area for donations is at the driveway door, where things are classified in saleable categories, or as unsaleable waste or recyclable material. The driveway works as the pre-sorting area, where saleable donations are separated by product categories and distributed to pricing areas.

Figure 15 - A workstation shared by the staff processing clothes and bedding products. These benches are stocked with the tools for pricing, including tickets, price guns and price lists.

Figure 16 - The front window used for exhibiting high-value products.

Figure 17 - The foot path used to display low price products for rapid sales.

Displaying consists of distributing the donations that have been processed across the shop, according to areas assigned to each product category. In this process, volunteers appropriate the space available at areas to accommodate the second-hand products. Although this distribution follows pre-defined patterns, it can change depending on seasons or daily circumstances. There are a series of criteria for displaying products around the shop as well as in each specific area. These criteria have been established by the shop manager and consist of further classifications of products according to functions, type, colour and price ranges. Displaying can be a form to further increase or decrease the value. For instance, the front windows (fig. 16), the mannequins, and locked glass cabinets are used to enhance the visibility of high-value items; while the footpath (fig. 17), low priced products are displayed to attract bargain hunters and accelerate their sale.

2.2.2. The shop layout

The shop layout consists of areas distributed according to product categories; this distribution is based on retail strategies indicated by the charity's marketing team, which makes use of display units and posters to adhere to the Vinnies brand retail experience. In addition, there are more informal and eclectic forms of display that are characterised by the appropriation of institutional standards and the use of donations to create additional display areas. The images below present the display areas of the op-shop and the distribution of different product categories around the shop.

Figures 18-21 next pages 36-37

Figure 18 - Front room – This is where high-valued things are displayed as well as a combination of bric-a-brac, jewellery, furniture and clothing in the window. The point of sale (POS), where the cash register and glass cabinets are, is where most of the *selling performances* happen before the transaction is registered.

Figure 19 - Main part of the shop – This area is dedicated to the display of clothing, shoes, handbags, bric-a-brac, furniture, picture frames, and toys. And it is where the two changing rooms are located.

Figure 20-21 – Back part of the shop – This area is used for the display of kitchenware, electronics, stationery, 'bits and pieces', bedding, lamp shades, haberdashery, picture frames, furniture, books and media.

Figure 18

Figure 19

Figure 20

Figure 21

In this chapter, I have introduced the research context. I have outlined industry and academic studies of the second-hand economy and presented the op-shop as the site that allowed me to learn within this context and to situate my design research practice. As a result of learning from the processes of sorting, pricing and displaying donations and embedding myself as a practitioner from the op-shop, I developed my practice-based research on ED4R. This practice based is presented in the following chapters. Chapter 3 next, delves deeper into the routines of the op-shop and focuses on providing a granular account of the actions that compose the processes of ED4R at the op-shop. Chapter 4 explains the methodological approach developed to practice ED4R in the routines presented in chapter 3.

CHAPTER 3. THE PROCESS OF ED4R AT THE OP-SHOP

The practice and analysis of the established systems of sorting, pricing and displaying, as well as of the everyday design interventions undertaken in our routines at the shop (defined in chapter 4), resulted in what this chapter articulates in five stages of ED4R. While the journeys of things and people transitioning and revaluing at the shop can be described as a linear sequence, from when donations arrive until these are sold as second-hand products, the activities that compose revaluing happen at all stages and are not exclusive to particular moments. For example, practices of cleaning can happen before donations arrive, while these are first received at the driveway, when these are assessed to define their prices or after these have been in shop displays for a while. However, for analytical and narrative purposes, practices of designing for revaluing are presented in this chapter in five sequential stages that account for the: *inspection* of donations when these are received at the driveway; their assigned *paths of movement* in and out of the shop that classify things in product categories; the detailed assessment comprised in the *product preparation* that specialised volunteers do at dedicated rooms for storage and valuation; the *accommodation* of products at the shop areas and displays; and the *selling performances* generated as staff, customers and things come together to share stories and to negotiate product transactions. This chapter 3 provides a granular account of volunteers and the practices of revaluing that compose the everyday routines of the op-shop. Which in the following chapter 4 are analysed further from a methodological angle. Chapters 3 and 4 work together in foregrounding the site, practices, and research approaches of ED4R that emerged from engaging in a participatory and ethnographic designing.

3.1. Inspection

Inspection is the first stage in the process of ED4R. It is the moment when volunteers imagine a future value for things donated to the op-shop; not by fixing a price but by calculating their potential saleability. To do so, volunteers engage with things to read in them signs of latent value to recognise their condition and quality as well as to become informed by their individual affective responses. As explained earlier, donations can be considered liminal objects whose value is in doubt. When they are left at the op-shop, their functionality, appearance and physical structure become dubious; there is no certainty if they work, if someone would be attracted to them or if they are complete. The work of volunteers at the moment of inspection consists in uncovering initial signs of value for things that could ensure the thing's transit towards their revaluation. Depending on their decisions, things will go into the shop to be transformed into second-hand products or will be sent out of the op-shop.

The inspection process responds to institutional guidelines and to relationships of care developed between volunteers and things. Although there are some institutional guidelines explaining how to handle and assess donated items, the process is developed through acts of improvisation where volunteers appropriate institutional guidelines; by relying on background experience and personal expertise and by responding in creative ways to daily circumstances. The senses are crucial for recognising value from and with things; it is touching, smelling, looking at, moving and handling donations that volunteers understand, feel and imagine their possible futures. The following sections present three examples that illustrate the inspection process and three of the main values that volunteers seek in things to determine if they are saleable or not: their condition, their quality, and their potential to affect customers.

3.1.1. Condition

The 'condition' of things is one of the aspects that volunteers try to identify during the inspection process. This attribute is determined while engaging with donations to see if they are complete, functional, clean or safe; and also identifying signs of decay, deterioration, dirt or risk for users. Each volunteer perceives these qualities in different ways, thus inspection is ultimately a matter of personal interpretation in which each volunteer appropriates the value systems established at the shop to prioritise some signs of high-value over other possible signs of devalue. For instance, a cashmere jumper of a well-known brand with a couple of holes and buttons missing may still be regarded by some as a high-value item because the material and brand compensate for the signs of devaluing in its imperfection. The flexibility of this process allows volunteers not just to restore the value of things, but also to re-create their value by extending meanings and functions in things for their potential reuse. For instance, John, one of the volunteers who works at the driveway receiving donations, is shown below (Fig. 22-23) transforming a set of 12 plates and cups into a set of odd pieces after disposing the ones he regarded as unsaleable. In doing so, modified the function that the individual pieces had within the set when it was new, and opened up the possibility to appropriate each piece and the new set of non-matching pieces, when in futures stages of reuse.

Figure 22 – crazed and dirty

Figure 23 – 'looks like new'

John: '… here, um, you can see that this is sort of, coming into the light, you can see that it's crazed on the inside and there are bits of dirt in there as well, so nobody will buy that, it's a nice piece, it's a shame but um… there's a good one… we'll see if we can keep some of it and make up something… crazed, crazed, crazed… sad when you gotta do that but…' (fig. 22)

Melisa: 'Why is that sad?'

John: 'Because it's a nice set and we had to throw most of it out because it's just worn out. Otherwise, it would've made a rather nice donation if it's still in good condition, you see this is second-hand, but you have a look inside there and it still looks like new'. (fig. 23)

The sensorial inspection of things allowed John to engage with them and to draw from his acquired experience and background knowledge to determine their condition and potential value. In this particular case, the signs of decay in the cracked glaze of this old set of plates did not stop John from imagining a future for the ones that still 'look like new'. This example demonstrates the flexible character of criteria such as condition and demonstrates how sets of things are re-made according to their potential value as a reconfigured system. In this case, John not only is focusing on the task of inspecting but through his actions of separation he initiates a process of designing that transforms the original function of the donation as a set. In this way, he improvises the making of a new set of odd numbers and un-matching pieces for future customers to continue further appropriating through their reuse.

3.1.2. Quality

'Good quality' is another property that volunteers look for when inspecting donations and uncovering latent values for them. Quality is not explained through institutional guidelines, nor is it explicit in things but it is an elusive characteristic that volunteers measure by analysing the materials of which things are made of, the commercial brands they stand for, and the 'made in' labels that indicate where they come from. For instance, clothing made

of natural fibres such as silk, wool, and linen are considered to have better quality than those made of synthetic materials and further, furniture pieces made of wood are regarded as good quality items, while vinyl laminated surfaces are considered of lower quality. Quality brands are identified through visual and tactile exercises to identify logo-symbols, printed slogans and emblems and to assess the authenticity of these elements. The 'made in' labels indicate the origin of things and allow volunteers to make assumptions about the artistry work or technological expertise involved in their design or the environmental impact associated with their production, distribution, and commercialisation. Andrew, another volunteer working at the driveway, explains below how he looks for specific signs of quality when he is inspecting things and how these signs allow him to think of the possible value for things, including their potential price.

> *'I'm no expert on material but I prefer cotton and silk. I don't like polyester and I don't like it when I go through a piece of clothing and I can't find a label, if it doesn't have a brand on it and there's no label on it, I'm highly suspicious… and I usually send away… it's not being thrown away, it's just going to another store, it's not as if I'm putting it in the bin… another store might like it, I mean it might be ok, but for [this shop] and with the amount of clothing we get, we just don't need it. We can afford to be pretty strict in what we take… I must admit, I do get excited when I see a piece of clothing made in Australia, I know it's gonna be quite expensive'.*

Andrew made evident the influence that personal character, preferences, and tastes have in the inspection process. His account not only explained the procedure he followed when assessing the quality of donations but also demonstrated when values he associated with quality were not evident in things, the chances of revaluing them become uncertain. The example demonstrates how, in the absence of guidelines, to measure elusive properties, volunteers improvise procedures and create their own criteria for assessing the value of things.

3.1.3. Affective

In addition to tangible signs of good quality (e.g. materials, brands, labels) and condition (e.g. functionality, cleanness, appearance), inspection involves the recognition of intangible properties of things. These properties emerge from affective engagements with donations and, in particular, when they trigger feelings and memories that activate the imagination of volunteers. The responses that result from these affective inspections resonate with Jane Bennett's notion of 'vital materialism' and 'vibrant matter' that attend to the 'agency' of things (Bennett, 2010). An agency that Bennett argues could have the potential to change the ways in which patterns of consumption are understood, opening possibilities to recognise lively aspects in things that could otherwise be seen as rubbish (2010). This agency, however, is not explicit or implied in things but it is based on individual experiences of each volunteer, and although it can increase the perceived values of donations, is not always possible to translate these types of values into economic prices. The op-shop manager explains how difficult it is to quantify intangible value saying '*memories can't be priced*'.

Nam, one volunteer who collects antiques as a hobby, is aware of this affective agency in things. In one of our conversations, he argued that he is able to 'feel' the 'souls' of old hand-made things, and suggested things are instilled with a soul when they are produced and used. When things are handmade he says, 'man may transfer the energy, but not if it is machine made' (sic.). This energy is not only transferred onto things by the person who makes them but also by the owners who 'love' them. As he explains:

> *'Everybody who loves to collect antique things, they love their antiques… they find a soul in them, they have a connection… for antique and hand-made objects, the feel is stronger and stronger if the user or person who buys them loves them and they transfer the feel… because they are made by hand, every detail, I can't explain in words something I'm feeling… they share with you the happiness and sadness in life… they help you a lot… they are my friends'.*

To sum up, the initial moment of inspection is comprised by a series of acts in which volunteers engage with things to identify tangible and intangible properties that help them to determine the saleability of donations and to imagine the paths these could follow towards the journeys that things take towards becoming second-hand products. The decisions made in the process of inspection determine the paths of movement and the placement of things throughout the subsequent stages in the revaluing process.

3.2. Paths of movement

> *'We actually have it within our power to be the custodians of an object and its journey in a moment of time. To be the custodian, and also to point in the right direction for its next stage'. (Shop manager)*

After the initial inspection, the staff defines the paths of movement and the placement of donations according to the shop's system of classification and of product distribution according to their values. In practical terms, the process consists of putting things into a series of movable containers that transport donations from the driveway to other sites inside and outside the op-shop. The paths of movement are mainly defined depending on the saleability of things. Saleable things are put in containers that bring them into the shop and distribute them across each of the rooms where they will be processed to then be sold. Things that go in are classified according to product categories and subcategories, for instance, clothing is separated by tops and bottoms and by women, men, and children. Unsaleable things, on the other hand, are removed from the revaluing process and put in containers that will take them out of the shop.

However, the division between what goes in and out, as well as the areas where things go and the categories into which they are classified are contingent and temporal; constantly adapted to daily circumstances and reinvented over time. To define the possible paths of movement of donations, volunteers and managers have to improvise and move things around, taking into consideration several variables including institutional policies, space and staff available at the op-shop (fig. 24), changes in weather, commercial

calendar dates and broader dynamics in the market of second-hand goods. As will be further illustrated by one of my design interventions (in chapter 4 section 4.2.3), volunteers also expand and contract the classification system and the future paths of donations by adding and removing containers and by changing the criteria that define the types of things that go into each of them. The whole system, its changes, and evolution, is supported by a communication network consisting of handwritten notes appropriating donated boards to explain staff and donors about the specific circumstances of every day (fig. 26), as well as the implementation of long-term policies (fig. 25). The following two sections look at the practices involved in defining paths of movement for things and in sending them in and out of the shop.

Figure 24 – Shop capacity   Figure 25 – Everyday policies   Figure 26 – Daily circumstances
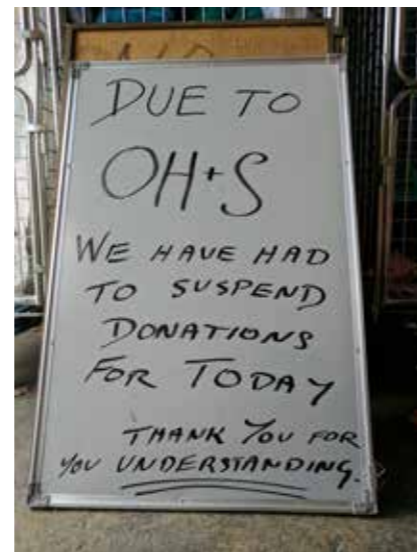
3.2.1. Things going out

There are several reasons and circumstances in which things cannot be revalued and are sent out of the op-shop. The following examples present some of the creative practices involved in situations when donations have to be rejected or discarded.

Due to space, staff limitations and the need to be a viable business, there are several donations that are sent out of the op-shop even before they arrive. As explained earlier, one of the issues that charities have to face is the number of unsaleable donations that are brought by people and need to be discarded. As a result of some donor's ingenuity and maliciousness, charities run with costs associated with removal of rubbish and volunteers have to spend time and effort getting rid of things. In response, Vinnies has published on its website a series of policies indicating what can be donated and what should not be brought to its shops. Furthermore, the shop managers and volunteers are continuously appropriating and extending these policies to adapt to the contingencies of the everyday routines. The photos above (fig. 24-26) and below (fig. 27-28) illustrate some of the elements that compose the particular 'in-house' policies developed at the shop.

Figure 27 - *'Please SMILE for the security camera' 'Please do not leave any furniture here unless it has been approved by manager. Thank you'*

Figure 28 - *To the dumping cushions overnight offender. You've been caught on CCTV + it's been given to police :). What a shame'*

As these photos show (fig. 24 - 28), op-shop managers have improvised a communication system to communicate policies and regulations. When preventive notices are not effective, the system is extended to warn current and potential 'offenders'.

Figure 29 - *'Please do not leave donations when store is closed, thank you'*

Figure 30 - *'Make your donation of saleable goods count by not leaving them outside normal trading hours. All items left here outside business hours are disposed of without being sorted because of possible contamination'*

To emphasise the instructional posters, cameras, and gates that indicate to donors that donations are received only during business hours, the shop manager created additional signs (fig. 29) using store tools such as a computer, printer, laminating machine and donated picture frames to display the signs (fig. 30). However, as the images show, despite the attempts to prevent these practices from donors, things are always left after hours. In addition to maintaining a system of communication through notes with donors, the manager implements the same system to communicate with op-shop staff, reminding them of the key criteria when inspecting and indicating the paths of movement depending on things values (fig. 31-32).
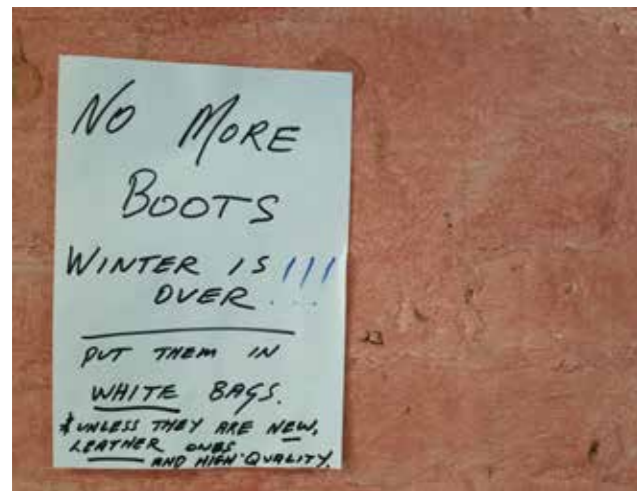
Figure 31 - 'No more boots. Winter is over!!!. Put them in white bags. Unless they are new leather ones and high quality'.
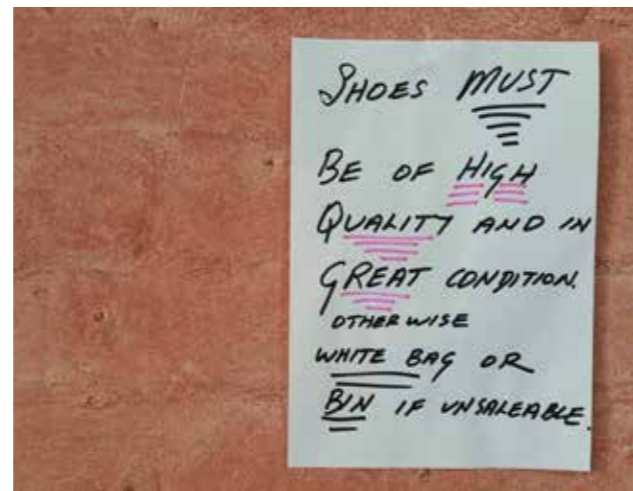
Figure 32 - 'shoes must be of high quality and in great condition, otherwise white bag or bin if unsaleable'.

As explained in the previous section, not all donations brought to the op-shop meet institutional standards or personal criteria of volunteers. In these cases, things are declared unsaleable and are discarded. In the same way that signs of good condition and quality are interpreted as indicators of potential value, at the moment of inspection, there are other signs that diminish the value of things and are understood as indicators of devalue. When donations are found to be in this stage they are sent out of the op-shop and, depending on the level of devalue, there are three sites where they are sent to: landfill, in 'white bags' (fig. 31-32) which go to the warehouse for redistribution to other Vinnies' shops and for sale to overseas markets. The criteria to define what goes where is flexible and based on a combination of institutional guidelines and personal perception of volunteers. Below, John explains the criteria he applies when deciding the paths of movement of unsaleable things:

Figure 33 - John pre-sorting criteria

'[I check donations] to see if there are any stains, see if there's any dirt, any marks, any holes. If it's good, we keep it, if it's not, we don't, and it goes to either another shop if it's just a little bit grubby or it goes overseas if very grubby or if it's absolutely disgusting it goes in the rubbish because we don't even want to contaminate the overseas bails with filthy clothing'

In this case, *grubby* and *disgusting* work as an indicator of devaluation and marks a limit between things that go in and the things that go out. Depending on the intensity of these signs of devaluation, John decides where things should go.

There are other instances in which donations are separated as unsaleable due to their material faults and the circumstances of the op-shop, even when they are in a clean condition. John explained that due to the limited space available for storing donations, charities are not the sites where things can be kept unless their values can represent an economic return. While working with John at the driveway, I asked him about the possibilities for revaluing scratched and chipped plates instead of disposing of them. His response, transcribed below, makes evident how the context of the op-shop, not just the condition of things, influences the future movements of things.

Figure 34 – Broken plates

'We can't store everything in Vinnies… there are millions of things you could do, it requires an artistic mind to do it… somebody might want those plates but the reality is unless that person intercepts those plates before they get here, it's not gonna happen because when we get them, we see broken, unsaleable products which are no good to anybody so, therefore, they go in the rubbish, it's a hard… it's a decision you have to make because if you take the other alternative, which is to hold on to it, where do you stop and then people are going to come and how much are you gonna pay for it, they are not gonna pay a lot of money for it, it is not worth any money, so it has to be given free or almost free so you are relying on somebody donating you the space, foregoing an income on a warehouse to be able to do that, its commercially not viable'

John's explanation of the possibilities for the plates to being revalued by an artistic mind relates to Reno's definition of how the 'individuation of rubbish thus involves determining what it might yet be… most evident, in acts of reuse which demonstrate forms of 'know how" (2009, p. 34). Which, similarly to John, Reno evaluated in terms of the possibilities for economic gain, claiming that 'the incentive behind revaluing waste is economic, an effort to directly profit from another's limited imagination' (2017, p. 18). There, waste is a 'by-product of any human assessment of worth and meaning, which is to say, something socially constructed rather than an actual characteristic of things in the world' (2017, p. 18). Such an assessment, as John explained at the op-shop, needs to be made by prioritising valuable donations and by separating the faulty ones for redistribution and disposal.

3.2.2. Things going in

After being inspected, the donations that are found to be saleable are prepared to be taken into the op-shop. At this stage in the process of designing for revaluing, volunteers have to match the potential value of each donation with a series of product categories that facilitate their classification. Once classified, they are temporarily stored in movable containers, used to distribute them across each of the rooms where they will be processed: the back, the bric-a-brac room, the media area, etc. The relationship between potential value and product category is relative and uncertain. Old toys, for instance, do not always go to the toy area as old toys can be seen as antiques and put in a 'box of treasures' (see 4.2.4.1.) to be sent to the managers' office or they might be seen as an ornament and sent to the bric-a-brac room.

As mentioned above, there is no plan or script determining the materiality of the system or of the variables that define each product category. Instead, volunteers improvise to constantly create and re-create the ways in which things are classified, moved into and stored in each room. The volunteers who work at the driveway have implemented a system to classify donations by product categories that they refer to as the 'pre-sorting system'. To create the system, volunteers use tools and equipment available at Vinnies shops, such as trolleys and bags, as well as appropriating other things brought to the op-shop by donors including tables, shelves, plastic containers and cardboard boxes (fig. 35-36). These elements are organised around the driveway, and each container has labels that indicate the product category it contains.

Figure 35 – driveway and pre-sorting area

Figure 36 - driveway and pre-sorting area

John explains how the pre-sorting system is constantly evolving and how new product categories (some of which resulted from my design interventions presented in chapter 4) are incorporated into the system by adding containers:

'… [the pre-sorting system] evolved, as things became available, we saw easier ways of doing things… for example, this cage here (referring to the shelf at the right of the image) was back in the shoes and we needed something that was a little bit better than what was there and, as a result, this is what we've got now and it's a lot easier because it's more space and it's not as cluttered and when doing it, we are also getting more categories because Neil wants to keep 'Australiana' as a separate item, so we've got an 'Australiana' bucket. As things like that happen, then we filter for that…'

Figure 37 - Pre-sorting system in 2015

The materiality of this pre-sorting system exemplifies Bowker and Star's definition of classification systems as a 'set of boxes (metaphorical and literal) into which things can be put to then do some kind of work' (1999, p.10). As Gerry explains:

> 'We have certain types of boxes for certain things, or we just take them down in trolleys or baskets, so we can leave them there [at each room] in an ordered fashion so other people can work on them. And that's why we retain all these little boxes here that we use and reuse them again many, many times…'

Each of the containers in which things are put in, not only allocates them to a specific product category but also defines a path of movement for them. Volunteers use a variety of moving tools to transport pre-sorted donations to the specific rooms for storage where other volunteers proceed with a specialised valuation. These mobile tools include trolleys, cages, and containers that ensure the careful movement and that minimise the physical effort of moving them.

Figure 38 - a year later in 2016

Figure 39 – Manual handling safety indications

Figure 40 – Safety moving indications
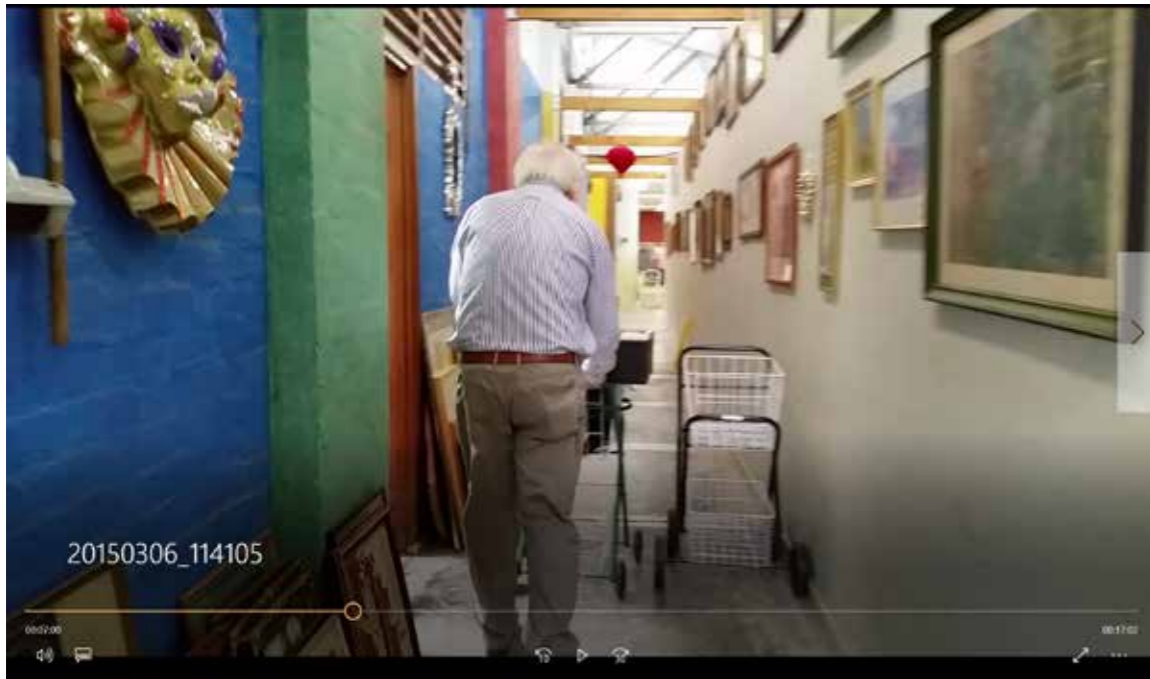
Figure 41 – Gerry pushing the trolley

The embodied nature of moving things between areas of sorting to pricing also has its physical toll on volunteers, as Gerry says, '*the legs feel it at the end of the day, mainly your legs, between the front gate and the back is about 100 yards, 100 metres, and you go up and down there 30 or 40 times a day or more and you do feel it, especially at my age*' (Fig. 41)

Once donations have arrived at the rooms where they are processed, volunteers proceed to redistribute them from the containers and trolleys of the pre-sorting system to the dedicated areas for storage in each room. Due to the high amount and variety of donations, storage areas are reduced, and volunteers have to carefully move and find where to situate each thing within the available space. The areas where things are situated determine the length of their stay in storage before they are processed. For instance, in the bric-a-brac room, there are two areas dedicated to storing donations before they are processed: 'the ground' and 'the shelf'. Each of these areas imposes a rhythm in the paths of movement of things (fig. 44). While at 'the back', valuable clothes are put on hold to await specialised valuation (fig. 45).

Figure 42 – Trolley in movement

Figure 43 – Tools for moving

Figure 44 - The bric-a-brac room is equipped with permanent shelves and a bench where boxes with pre-sorted and homewares are accumulated for dedicated volunteers to process.

Figure 45 – 'Do not remove. Designer to be checked! Danielle 15/02/2015'

While things gathered in pre-sorted boxes on the ground circulate faster as these are addressed first to ensure maintaining the room with clear and safe areas for circulation, conversely, things regarded as more valuable than mere homewares are situated on the shelf, where they stay for longer periods of time, until they are found by someone with expertise required to process them. The situation of things stored on the bric-a-brac shelf can be considered as 'dormant things', a concept proposed by Sophie Woodward to define processes revolving around the accumulation of objects at home. In her analysis, Woodward argues that accumulation of things should not be considered a manifestation of the 'throwaway society' because it reduces the domestic life of things to concrete moments when they are utilised by people. Instead, she proposed to acknowledge storage as a moment of 'rest' in the life of things (Woodward, 2015). In the context of the op-shop, and in the particular case of things put on hold, the notion of 'dormant things' is useful as it illustrates how the most valuable things have paths of movement considerably slower than things with an average value. At the same time, thinking of storage and accumulation as slow or almost static paths of movement reveals passive forms of revaluing, where the life of existing things is extended towards directions that divert them from landfill but that suspend their circulation towards paths of re-use. The awakening of these collected things often become the departure for ED4R interventions, for instance, leading to the creation of new product categories, as it is the case for stationery and treasures presented in the next chapter (4.2.3), which involved awakening things that were at moments of rest by putting them back in motion within dedicated categories and towards specialised areas for their valuation and display.

Overall, the definition of paths of movement and location of classified donations is a moment in the process of ED4R that determines the positions for things either by separating them by their saleable and unsaleable potential. The following stage in the process of revaluing is the preparation and assessment of pre-sorted, classified and stored donations by specialised volunteers who are in charge of a detailed inspection to prepare donations to become second-hand products for sale.

3.3. Product Preparation

The moment of preparation is when donations are prepared to be sold and transformed into second-hand products. This stage happens at each of the rooms where donations are taken after being pre-sorted at the driveway. Each of these rooms is divided into storage and work areas and is shared by the volunteers who work with each specific product categories on different days of the week. The work of volunteers consists, firstly in assessing each piece to calculate their potential exchange value, the price they will be sold for and secondly, in making these values explicit and visible to customers who would buy them. The assessment of items, similar to the inspection conducted in the first stage of the process, is based on a combination of institutional guidelines and personal criteria of volunteers. The procedures to make the value of products visible and explicit include the creation of elements that can communicate those values to others. These additional elements include not only price tickets but also explanatory labels with handwritten information about the age, maker, and materials that point people to values that would have otherwise remained implicit. In some cases, items are packaged in order to group them in sets and to protect them. In the case of treasures, additional references such as statements of significance or advertisements for the same product taken from online markets, such as *eBay*, are attached to explain to customers the product's demand, its average price, and its cultural appreciation. Often good quality donations are washed, cleaned and polished and rarer and valuable items undergo processes of physical repair.

Overall, preparation is a moment when volunteers engage in designing for revaluing by translating the value of things into commercial languages of the retail context. Uncovering and translating values involves the appropriation of guidelines determining the economic value of things, as well as quality and safety standards in order to meet the expectations of new owners, preventing theft, complaints, and returns. In the following three sections, I present each of the moments of this stage: uncovering values, cleaning and repairing and pricing and labelling.

3.3.1. Uncovering values

The transformation of donations into second-hand products involves assessing each thing to determine their potential price. For doing this, volunteers set up their work areas and organise them according to the tasks they plan to do during their shift. They assess the potential value and calculate a price and prepare things to reflect the price they have decided. At this stage, it is not uncommon to recognise things that have filtered through the initial inspection that are in unsaleable condition. Therefore, this stage also includes tasks of disposal and redistribution of unsalable donations to the warehouse. The following examples explain how the process is developed.

The first step to uncovering the value of donations revolves around the configuration of work areas and preparation of tools. As explained above, each room has storage and work areas but, rather than being fixed, these spaces are flexible and their dimensions change depending on the number of donations received and the number of staff sharing the room. Each volunteer has specific preferences and ways of working, which are reflected in the way they configure their work areas. Since these areas are used by different individuals each day of the week, volunteers are constantly creating and re-creating their space. As Trish explains:

'Well, I have to gather up the [pricing] guns and make sure you have everything here and then it's just usually a matter of clearing the bench because you've gotta have somewhere to work, and then just start going through the boxes'

Figure 46 - Working bench for pricing homewares.

Figure 47 - Pricing gun and sticky tape used to protect prices.

Once the work area and tools are ready, volunteers organise the containers that have been brought from the driveway to each room and unpack the donations to assess them. This assessment process is similar to the inspection conducted when donations arrive at the op-shop but require a type of knowledge and creativity specific to the task of calculating a price. At both stages, volunteers try to determine the potential value of things by examining their quality and condition but the way they express that value is different. While volunteers working at the driveway express value in terms of saleability, those who work at the rooms express value numerically in terms of price and with handwritten labels that include keywords such as 'unique', 'vintage', 'silk' or pointing to brands to highlight cultural values given by rarity, age, materials and commercial reputation.

For fixing the prices and labels, volunteers put into practice knowledge they have acquired through life experiences and expertise they have gained working at the op-shop. In this way, they are able to recognise brands, materials, functionality, quality of things and translate these attributes into prices. Below (fig.48), Don explains how life and work experiences are key resources in the recognition of latent values in donations:

Figure 48 – Don and the old toaster

'It's mainly a matter of experience. I used to watch the people who worked here and I used to check the prices out on the shelves and I've got an idea of how much things were worth. Apart from that, I'm very old enough, I'm 84 and I have seen a lot of the things that come through this shop in times past. Things like that old toaster there and I know that if something is not made anymore, it's collectable, somebody will buy it and it's a matter of finding the value, our manager is an expert on valuations and a lot of the valuation of rare stuff, I leave to him. I only do the ordinary kinda stuff these days… I know what's worth something and what is not… it depends if they are of some value but if they happen to be broken, we can still sell them but if they are cheap and nasty and they are broken then we would throw them out… sometimes it's quite dull and other times, we can find a treasure and that would make my day'

Sometimes, donors contribute to this process adding packaging and notes that suggest and explain the value of things. The work that donors make evident are the wider 'practices of care' (de la Bellacasa, 2011; Denis & Pontille, 2014) around things even when they are not wanted anymore, either to communicate with the op-shop staff or to protect donations in their movement and with the hope of increasing their chances of revaluation. Donors' practices include wrapping donations and adding messages about their condition, quality or country of origin. The following images (Fig. 49-53) illustrate the way in which donors' practices of care are materially expressed.

Figure 49 - It is common to receive ceramics carefully wrapped in paper and bubble plastic.

Figure 50 - The note 'Dinner mats from Bhutan' can be seen as evidence to explain the cultural value and to inform about the precedence of the items.

Figure 51 - Although it is rare, sometimes previous owners add labels to maintain visible information about a thing's value. In this case, a handmade label has been hand stitched to the existing label to indicate it's brand, 'Boss', and that it is part of a set. An equal label has been sewn to the pants as well
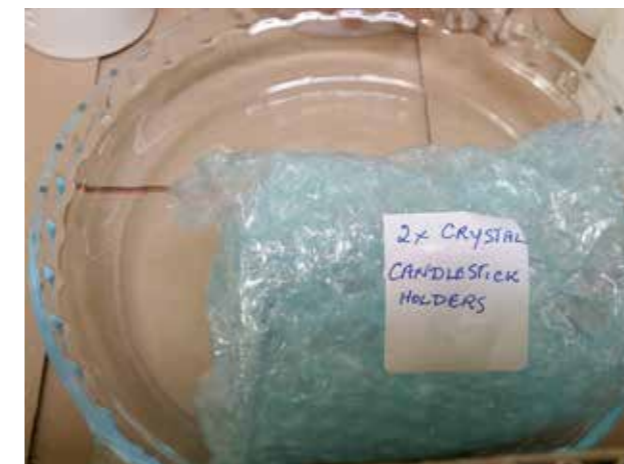
Figure 52 - '2 x crystal candlestick holders'

Figure 53 - "For a bike light ("moon brand" – working well, just that the light itself did not!"

These practices of care demonstrate how acts of designing for revaluing happen at all stages of the lifecycle of things. From processes of design-in-use, when users make things meaningful in personal ways and appropriate them to their unique forms of use, to subsequent, in-between stages of designing after-use and before-reuse where, in this case, volunteers prepare used things for their potential reuse by future owners.

Most of the time, once volunteers have assessed donations and have calculated their price as second-hand products, they proceed to price them and get them ready to be accommodated in the shop displays. However, some items, especially those with potential high prices, have additional processes aimed at making their value explicit to customers.

3.3.2. Cleaning and repairing

Donations with prices higher than average products in their category undergo special practices of care, such as cleaning, repairing and polishing. For instance, two volunteers, who work in the bric-a-brac room, point out how the cleanliness of things can make a difference in their revaluing. When pricing and valuing glasses, Trish says, '*I like washing the things, I like putting out the glass sparkling, although you don't always have time*'. Gina, who is in charge of displaying products in the homewares section, explains that '*washing glasses makes the difference… if things are bright and clean, people are more likely to buy it. That's it, I know*'. Repairing is rarer and only done in exceptional cases by a few volunteers. Mary, for example, mends the rips and holes in good quality clothes on Thursdays (fig. 55) and Nam repairs antique and hand-made things to maintain, as explained earlier, the *feel* that is transferred to things by people who care for them, which imbues them with an affective value (fig. 54). These practices of care, comprised in designing for revaluing, relate to the notion of 'values in repair' that Jackson et al proposed from an HCI perspective, to explain how:

> '*We keep our technologies going through acts of repair, from on-the-fly improvisations to faithful restorations. Just as values may be embedded in and through design, alternate processes of valuation may be set in motion through repair.*' (2016).

Below (fig. 56-57), the shop manager explains how these practices of care can increase the value of donations as second-hand products:

Figure 56 – revaluing by cleaning

'*…see how it has a silver shine to it, that tells you it has a certain amount of lead in it, so, unlike normal glass, as soon as you see this shine, it is either going to be crystal or very, very high quality. So, as soon as I saw this, it was very dirty, I cleaned it and also on the bottom, it actually says Orrefors, which means it is very, very good quality vintage glass, probably from the 1960s. So that suddenly now became something that would've been 50 cents, to something that we now put in the cabinet and put 15 dollars on it and that is a bargain because it's vintage, lovely good quality*'. (fig. 56)

Figure 54 – revaluing by repairing

Figure 55 – revaluing by mending

Figure 57 – revaluing by polishing

Practices of care are implemented because, as explained earlier at the stage of inspection, dirt is seen by volunteers as an indicator of devaluation. Thus, the acts of cleaning at the stage of preparation are also related with what is known in second-hand studies as 'practices of divestment' (N. Gregson, Metcalfe, & Crewe, 2009, p. 254), which have the purpose of removal of marks from previous lives and past owners to present them renewed for future customers. Thus, cleaning and repairing are acts of revaluing, central to the process of uncovering and creating values for donations, which are later acknowledged in the moments of pricing and labelling.

3.3.3. Pricing and labelling

The purpose of pricing and labelling is to prepare things for sale by imbuing them with symbols that are characteristics of economic transactions. Prices are defined to crystallise an approximate monetary equivalent. In that sense, priced donations acquire corresponding characteristics of money. Characteristics that literatures of money, define in terms of 'medium of exchange', 'store of value' and 'unit of account' (Maurer, 2006). Price tickets and labels are used not only to explain the uncovered values of things but also to make possible faults explicit to customers in order to prevent future disappointments, complaints, and product returns. Prices are not strict or fixed and are usually open to changes. Discounts on prices are common, either as a systematic strategy to circulate products that have not been sold after being on display for extended periods or as an improvised measure to attract customers through bargains.

Each product category has standardised procedures of pricing that are determined by the different tools and price tickets that correspond to each category. There are two kinds of pricing guns: one is known as the 'sticker pricing gun' (fig. 58), which is used for all general products such as homewares, books, shoes or picture frames. Another pricing gun is used to attach tickets to clothes, fabrics, and furniture (fig. 59). Apart from price tickets, there are 'unique' labels which are used to price high-value items such as antiques and furniture. Most of the time, the 'unique' labels are complemented with additional information, such as handwritten notes or printouts of *eBay* auctions for the same or similar items (fig. 60-61). Below are some images that illustrate the varied tools and forms of pricing that volunteers engage with to enhance the agency of 'things as participants' and to mediate further stages of interaction and selling transactions with potential customers.

Figure 58 – sticker pricing gun

Figure 59 – clothes pricing gun

Figure 61 (top)– Unique labels - Volunteers have developed 'in-house' strategies to protect prices from being removed by clients.

Figure 60 (left) – eBay value reference.

Figure 62 – Sometimes volunteers make their own labels to tell stories that clarify the value of things and that indicate the processes of testing that they do to ensure the condition of things. Here the labels of this toy say *'I need 3 x AA batteries to operate, but I do work. The cash register does addition. The calculator es not set up to do addition but makes numbers appear on the cash register display. November 2016'.*

Figure 63 – In this case 'unique' labels have been appropriated and used on the rear side to mark the name of the product in the bags, to indicate its completeness and to ask for it not to be openned to minimise the risk of it loosing pieces and becoming devalued.

Figure 64 – small labels are used for jewellery pieces. Volunteers handwrite prices and indicate the AS-IS condition of things for customers to be aware of potential damages.

Figure 65 – Unique labels are often attached to products with curled ribbons to enhance their value as treasure items.

Figure 68 - This toolbox has been made by the volunteer that works with toys during the weekend. It includes 'unique' labels that he uses on the reverse to make his own handmade designs (fig. 63). In addition, batteries and cables to test some toys.

Figure 69 - This toolbox is shared by the volunteers that work with clothes and bedding. It has haberdashery items that have been donated, which are used to mend minor damages.

Electric devices have specialised processes of labelling that require legal procedures known as '*Tagging & Testing*' that only certified volunteers can do to ensure that products are safe for sale and reuse (fig. 67). When their testing indicates that things are unsafe, their possibilities for revaluation minimise and the most likely path of movement for such things is towards devaluation and disposal. However, as Bernard shows (fig. 66), at times it can also become an opportunity to imagine alternative uses and values for things. For instance, by cutting the cables of a broken lamp, he transformed it into an ornament, marking a transition not only in value but in function and in product category within the op-shop system; priced and displayed as a bric-a-brac product.

Figure 66 – From electric to ornament

Figure 67 – Tagging & Testing label

Besides volunteers' appropriation of workspaces to undertake their processes of assessment and of products' economic valuation, volunteers continually make the toolboxes they require for pricing. Toolboxes include a combination of institutional labels with appropriated donations found at the shop used as containers and as tools to create handwritten labels and to mend things. Below (fig. 68-69) are some of the toolboxes created by volunteers to facilitate their processes of designing-before-reuse.

In addition to ticketing and labelling, pricing involves processes of packaging. Donations are packaged generally for two reasons, either because they are part of a set or to prevent their decay. Or as will be explained in the next chapter with the toys workshop (in section 4.2.1.1.), packaging procedures prepare things for stages of accommodation in displays and for selling interactions. At this stage of the process, the thing's position modifies from being a donation in a non-commodity situation to a second-hand product for sale.

As mentioned earlier in the stage of inspection, assessing donations to uncover their values, involves an affective engagement with things, which is a subjective process that depends on individual preferences and daily situations. This affective engagement changes the ways in which the value of things are perceived. As the volunteers working at the bric-a-brac room explain: '*some things are old and yucky, others are old and trendy*'. This variance manifests differently, not only in the pricing but also in the aesthetics of labelling and the ways of packaging things for display and sale. For example, another volunteer further acknowledges, '*it's funny because I don't particularly like them [referring to a set of plates], so you tend to think they are worth much less when you don't like them*'.

Overall, preparation of donations is a stage in the process of revaluing in which volunteers combine sources of information to guide their decisions of turning donations into second-hand products. From drawing on previous experience and personal knowledge to acknowledging donors' notes and practices of care, to a sensorial analysis and affective valuing by engaging with donations material, functional and symbolic signs, as well as finding additional sources of commercial value to support their ways of pricing, labelling, and packaging. The combination of these sources of information and of pricing procedures result in the consolidation of recognised forms of value in what I define in the next chapter as an open-ended prototyping (see section 4.1.2), oriented to making this value visible to others. Ultimately this mediates stages of social negotiation and product exchange at the selling moment of revaluing.

3.4. Accommodation

Once donations have been prepared and transformed into second-hand products, they are displayed in the shop area. This stage involves the creation and maintenance of display areas according to product categories and the ongoing accommodation and re-accommodation of products in the displays. The creation of display areas and the organisation of products is aimed to attract shoppers and to facilitate their engagement with things. Usually, second-hand products are displayed by the same volunteers in charge of pricing, packaging and labelling each product category. However, there are a few volunteers dedicated to organising the display areas and keeping them clean, safe and pleasing, according to 'in-house' standards set up by management and their personal criteria. Often, the accommodation of products into displays follows thematic arrangements. To configure these arrangements, volunteers group things by type, colour, price range, sizes and seasons. The way things are displayed at this op-shop creates a particular atmosphere and shopping experience that is acknowledged by customers. Due to the continual circulation of people and things, the displays and shop atmosphere are constantly changing. In addition, clients are continually grabbing and moving products from displays and volunteers in charge of accommodation are constantly tackling with the relentless dispersion and mess that results from these interactions. Overall, accommodation is the moment when donations are presented as second-hand products, ready to be bought and reused by shoppers. This section explains the accommodation process through two activities: setting up the shop displays and creating stories, accommodating things by themes.

3.4.1. Setting up the displays

Setting up the op-shop's displays involves two main creative processes. One consists of organising and restocking products in displays, corresponding to each product category. Another revolves around the on-going configuration of display areas, depending on commercial seasons and the number of products on offer which, most of the time, is done by adapting pieces of furniture donated to the op-shop for displaying purposes. Both tasks comprise a series of creative processes of designing for revaluing related to fostering material and social infrastructures to extend the life of existent things. The following examples illustrate these two tasks.

Gina, one of the volunteers in charge of organising and restocking the homewares area, calls the continual accommodation of products in this section as a 'fixing up' process. Fixing up the homewares involves a continual adjustment of things, according to personal criteria and the re-accommodation of products that, in her view, are messy. For Gina, this process consists of finding spaces for things where they 'belong'. As she explains,

> 'First of all, when I come, I just go through here and see if anything has been put that shouldn't be there because people do shuffle things when they don't know where to put them so I just glance through and see what doesn't belong here… so that is why the first thing I do is just go around fixing things'

Figure 70 (top) - 'see these, this is aqua. Aqua, not green'… 'I'm more of a colour coordinator, colour means a lot to me, and the shades'

Figure 71 (left) - 'that [frog], I don't know who put it there, no no! it doesn't go in there, it's just a different shade of green… look at him… you gotta put the right shades together otherwise they clash. Even though it's all green, it doesn't mean it looks good together'

In addition to finding spaces in the shelves for things, 'fixing up' things also includes cleaning up displays and moving things around to make space to accommodate donations that have been processed and that are ready to be moved into the shop.

Figure 72 – Gina's toolbox

Figure 73 - 'Gina's work box please do not remove'

Figure 74 – fixing up homewares - 'all the time you are changing, all the time, you have to because, I mean, people come and buy things and leave gaps. Well, a lot of the time, what happens is people pick something up because they like it and they just come in so they carry it around with them everywhere while they look the whole shop over and then they decide they don't want it so they put it down anywhere, that happens a lot'

Since things are constantly moving, fixing up the display areas is an ongoing process that responds to the mutability of the spaces and attempts to create a pleasing sensorial experience for customers.

At this stage of setting up the op-shop to foster interactions, the staff draws additional inspiration and materials from coincidental encounters. These chance encounters are not rare due to the variety of donations and of people coming to the shop daily. Often following coincidences triggered instances of designing at the shop that involved the appropriation of donations to create and modify displays. As part of this process, shelves, tables, containers and other objects were reused as units for storing and accommodating products and for decorating the shop. Usually, after coming up with ideas for new displays at the monthly meetings, the manager concluded by saying '*Let's start manifesting*'. When I asked him about this approach to everyday designing that relied on things that were not yet available at the shop, he said '*It's interesting that once we actually have a vision of what we want, things suddenly turn up*'.

This example is helpful to demonstrate how the open-ended prototyping that keeps ED4R going, involves a disposition to engage with passing things as participants (see detailed argument of this in chapter 4). A designing that, while it may have an agreed vision by the people who previously discussed the ideas, it still requires from participants preparedness to be constantly on the watch for things to appropriate and from a willingness to improvise possible arrangements. In this way, staff practices of designing for revaluing comprise a systematic improvising. A generative and relational improvisation that, as Ingold and Hallam propose, 'lies in the dynamic potential of an entire field of relationships' (Hallam & Ingold, 2014, p. 7). The manager explains that this potential, serves as the vision to

recognise things and opportunities within the continual movements and encounters, as he explains:

> '*You have to know what you are looking for otherwise these things, that were going to pass through here anyway, will pass unnoticed and, instead of being the white unit we needed, is just another white unit donated.*' (referring to the white unit below in fig. 77)

Michael, the volunteer in charge of making the display structures, implements his expertise on carpentry to adapt, build, fix and repair pieces of furniture reused as displays and, through constant monitoring, he ensures they are functional and safe. Below, Michael explains some of the works he has done in different sections of the op-shop to adapt existent and create new display areas for some product categories.

Figure 75 - '*I made up the plaques and the script to assemble together, that went through a few different iterations, you know, to change the size of the printing and the font to try to make it as clear as we possibly could*'

Figure 76 - '*another thing we did here were the vertical black strips, just to differentiate the different bays that the books form into so as a visible divider between each category group of categories of books… it's a simple thing but it serves the purpose to keep the books in position*'

Figure 77 - *'I just got bits and pieces together at home that I used. Scrap wood that I had lying around that I cut up and put together. Sometimes I've got wood from here that have been old spare shelves that I've taken home to cut down to make them suit particular projects'*. Michael further points out how this process of appropriation and maintenance in ED4R is an open-ended process, *'I was going to paint this white, but it didn't happen or it hasn't happened yet. Perhaps one day I could do it…'*

The continual designing of displays that Gina, the manager, and Michael explained above can be further related to Ingold and Hallam's concept of ''anthropo-ontogenetic' to describe how form, rather than being applied to the material, is emergent within the field of human relations… a kind of making-in-growing, or growing-in-making' (2014, p. 5). They connect this notion of growing with making in the ways in which handling, caring and nurturing of materials and bodies 'give rise to the form' (2014, p. 5). An ongoing process that they sum up as 'making is to growing as being is to becoming' (2014, p. 4). Appelgren and Bohlin bring Ingold and Hallam's notion of growing to the second-hand context to describe the 'circulation of used and second-hand things as involving a form of growth, akin to that of a living organism, in that it results from the interaction between qualities and forces, both internal and external to the object' (2015a, p. 144). A social and material transformation that, from a design perspective, involves a process of 'metamorphing' (Binder et al., 2011). That, when addressed as an opportunity for revaluing, has the potential of becoming regenerative.

3.4.2. Creating stories

In order to manage the heterogeneous range of products available, volunteers introduce creative practices to accommodate them in the shop displays. The variety of things limits the possibilities of standardising accommodation. However, it also opens the flexibility of accommodating things in ways that compose stories, either based on colour, type or by drawing inspiration from the cultural background of things, such as the 'kitchenalia' product category. Thus, while there are ongoing attempts to group things by similarities, their differences result in always changing displays, and compose an open-ended prototyping in which the emergent stories are the result of staff's intentional accommodation but are also the result of a random accommodation in which things as participants communicate additional, unplanned stories.

Gina explains that the stories she creates with the displays trigger customers' imagination and, in this way, she says, they are able to envision possible futures for them:

> *'… when we try to display things nicely so that they sell, that's the whole object really and when you put things that go together nicely, people can then imagine that in their home setting and they say, "I can do that, I can put it somewhere", they already have got somewhere in mind…'*

Part of creating stories through displays involves the thematic accommodation of products according to characteristics such as shades and shapes, all of which are beyond the established product categories. Nevertheless, these heterogeneous displays are able to communicate harmonious narratives to customers. In the following examples, Gina demonstrates how she conducts this process of designing which she explains, consists of trying *'to marry things together with their own kind'*. That by drawing from her experience, she affirms that *'if you display things better-nicely, they will sell quicker. That's all I know for sure'*.

Figure 78 – Display of blue homewares

'…it was good because I really had a good go from scratch, was fun, was very satisfying. I love doing creative things… all the blue has been redone, fixed up, all these shades are together… a lot of changing and shifting, redoing but to me it looks good…'.

Figure 79 – putting things together

'… see how this goes with that? Look at this little, tiny thing… how nicely it would go here with that. Perfect, perfect, came from two different places, two different times… it's nice, it's fun to put things together… it's creative, it is very creative and it's good to do creative things'

Figure 80 - *'It just looks good together, it blends and it's easy on the eye' ... 'these things here, this is gorgeous, this is very oldy worldly, very ornate. Like we used to do in the old days and of course they go together so nicely, because it's sort of the same era'*

Besides the stories created with things by drawing from their material similarities, the role that the op-shop occupies as a middle ground between brand new and second-hand retail, influences the way in which volunteers' appropriate commercial calendars to benefit from customers' expectations at certain seasons; which was always the case in commercial seasons such as Christmas, Halloween, Mother's and Father's days or, as presented in the next chapter, even weekend celebrations such as St. Patrick's Day can become additional thematic opportunities to accommodate products to cater to people who have the cultural background of celebrating particular events.

Furthermore, as part of accommodating products by themes and as part of the maintenance of the display areas, by appropriating donations to modify shop fittings, the tasks of accommodating established intentional positions that influence the movement of things. Similar to the collection of treasures at positions of rest mentioned in the previous stage, paths of movement at the shop where certain things are also accommodated with similar intentions. For instance, as illustrated below, the front room and shop window are used to accommodate things of high-value (fig. 81-82); while, the promotion tables and the 'lucky dips' are used to display bargains (fig. 83-84).

Figure 81 – Window display

Figure 82 – Front room display

Figure 83 – discount tables

Figure 84 – 'lucky dips'

At the stage of accommodation, donations and the cultural and aesthetic narratives that these are enmeshed with work as resources for people at the op-shop to engage with by uncovering and creating stories that enable conversation, negotiation and that mediate exchange. As is analysed in the next chapter on methodology, engaging in these conversations encompassed processes of open-ended prototyping that were crucial in designing for revaluing. As the examples presented in this section have shown, to make these stories, volunteers apply personal taste and criteria and themes such as colour, shape, shade, commercial calendars or seasons. These stories were ultimately aimed at facilitating interactions between people and things; at triggering the imagination of visitors towards future practices of reuse, and at enhancing the possibilities of product sale.

Overall, the moment of product accommodation in the process of designing for revaluing comprises tasks around setting up displays and creating stories with things to make their values explicit. These creative practices generate shop environments that invite visitors and shoppers to navigate the shop and engage with the second-hand products on offer. From the customer perspective, the accommodation of products in themed, value ranges and pleasing displays means that products are easier to find, test and buy. As will be explained in the next and last moment in the process of ED4R in the shop, the accommodation of products determines the 'ambience' of the shop and creates the stage for customers' experiences and selling negotiations to happen, which marks a key moment in the constitution of revaluing.

3.5. Selling performances

After second-hand products have been displayed, the store becomes a stage for selling interactions to happen. While at the previous stages of revaluing, most interactions were amongst staff, donors and donations, at the selling stage, customers join the revaluing process by buying the products. In doing so, customers engage with and activate the values that volunteers have assigned to each product and start a new creative process where they extend the lifecycle of things beyond the op-shop. These interactions occur mostly at the front part of the shop where the counter is located and usually involve conversations about the past, present and future value of things. Therefore, this stage is not the end of designing for revaluing, it marks a transition of a process that continues beyond the shop, in the everyday life of shoppers and future users.

Figure 85 – Point of sale (POS)

The concept of performance has been used in several of the fields I build on as a way of defining the interactions that surround the creation of value. In the context of DA, the notion of performance has been introduced to describe the ways in which designers can stage participatory encounters to create collaborative 'design events' for people to meet and interact (Binder et al., 2011). In the context of second-hand cultures, Crewe and Gregson have highlighted the performative aspects involved in the act of purchasing and bargaining second-hand products (1997, p. 241). Moreover, Lambek's anthropological notion of 'value of performative (acts)' argues for an ethical view on the creation of value that stands beyond economic and labour value (2013). Therefore, bringing the notion of performance to analyse the shop as a stage for revaluing is useful to identify the everyday events of designing that emerge from the social encounters and economic transactions around second-hand products. In this case, at the op-shop, the notion of performance does not refer to methods to 'stage' 'design events' that are planned with anticipation by designer facilitators as Binder et al's have explored (2011). Instead, the shop is the stage for designing to emerge as people and things come together in everyday life,

where encounters and interactions become unplanned and circumstantial life performances themselves that can generate revaluation. The interactions that occur at this op-shop stage are not only economic but also social, creating spaces for playfulness and unexpected encounters, fostering cultures around circular economies and charitable causes and facilitating the involvement of customers in the revaluing processes.

The performative behaviour of customers is triggered by the specific characteristics of the op-shop environment. In their analysis of a flea market in Sweden, Niklas Hansson & Helene Brembeck, argue that, in contrast with mainstream commercial settings, second-hand markets embrace a 'dialectic between informal-formal, economic-festive' (2015, p. 93). This dialectic, they add, is constituted by the eclectic displays created by the vendors and by the reciprocal 'consumer dispositions like curiosity, pleasure and surprise' that create a playful and affective environment (2015, p. 103). The context of the op-shop can be considered as an environment that sits in-between. On the one hand, similar to mainstream retail, it is located indoors and uses standardised shelves, racks, and publicity provided by the charity. On the other hand, the constant circulation of donations and their transformation into second-hand products adds a layer of familiarity and informality, similar to the one experienced in flea markets. This double identity of the op-shops as retail establishments and as informal markets is evident in the social, material and economic transactions that occur here which deliver affective experiences that are exclusive to the second-hand context.

This environment and the experiences it delivers are generated through constant deliberate attempts to create what the manager refers to as the 'ambience' of the op-shop. In his view, this ambience is based on:

> '…the feel, the mood, the vibe – what you feel when you come into a place – it can also set the scene for how much people are prepared to pay. Service, friendliness, clean, welcoming, free from OH&S, well merchandised, offers, well presented, accessible, easy to move around, smell, music right, lighting, friendliness, fun, engaging, comfortable, safe, feel wanted, standards and policies that govern the way we do business. You need to feel as though you are making a contribution. By us, we need to inform people they are assisting people, we are the ambassadors.'

What the manager defines as ambience as the ways in which the shop can be felt by visitors and the ways in which staff can contribute to that feel can be related with Anderson's notion of 'affective atmospheres' (2009). A notion that as Anderson argues due to the ambiguity of how, who, when and what generates it specifically, is a notion that enables the possibility to refer to bundles of emotions, things, spaces and instances that are created as part of various participants and constituents coming together, which 'belong to collective situations and yet can be felt as intensely personal' (2009, p. 80). At the shop, the ambience was often generative of and from festive moods, surprise, and playfulness that emerged from customers' and staffs' emergent, socio-material interactions.

This shop ambience was created through the constant appropriation of donations as revaluing tools and for display purposes. The use of a bubble machine is one example

Figure 86 – Little Mermaid bubbles toy

of attempts to add to this 'ambience' by revaluing donations not as second-hand products, but as shop ornaments. The Little Mermaid bubble machine shown below (fig. 86) was donated to the op-shop, but instead of being revalued as a second-hand product, it was appropriated by volunteers (who marked it as 'sold') to be used as an interactive ornament at the shop's main entrance. While a few adults found this intervention annoying, most customers reacted with smiles and engaged in conversations about the Little Mermaid and its bubbles. The sensorial, playful and ephemeral characteristics of this intervention created affective forms of engagement and contributed to the creation of the ambience that visitors expect and enjoy from second-hand contexts.

3.5.1. Affective interactions

The opportunity of finding high-quality items at very low prices is another characteristic of the op-shop's ambience and a key motivation of the so-called bargains and treasure-hunters. As Anna, a frequent customer explains, 'I *say in my mind, -someone could've donated something and if I don't grab it, I might miss out- I do use that theory*'. These types of customers have a sensorial predisposition to look for things (even if they do not know what) and to immerse in the 'ambience' of the op-shop by touching things, singing old songs or enjoying bubbles. Joy, a regular visitor and customer, makes evident this predisposition when she says, '*the fun is in the hunt for something just exquisite that just 'pops out*'. Others express this predisposition in terms of a temperament, for instance, for Mary '*it all depends on the day and the mood I'm in… it's good to come in as a regular to view what's in stock. The other day I came in by chance and found that beautiful side table, it's one of the best buys I've bought, I think*'.

For other customers, coming to the op-shop is a way of participating in social and political causes related to broader processes of designing for revaluing such as contributing to altruistic agendas, engaging with circular economies of reuse and recycling. As Silvia, who comes every week, explains:

> '*One of the main things [of coming to the op-shop] is [that] your money is going to a good cause. That's one and also recycling [is] two. And you generally don't know what you are gonna buy so it's exciting. I just look and when I see what I like, I buy it, I don't come in with the -I'm going to go and get slacks, I get them when I see them- yeah that's what I do, that's what you have to do in op-shops. I feel you do anyway*'

Another aspect of this ambience is the flexible character of second-hand products' prices, which opens spaces for continuous performative behaviours where the values of things are discussed and negotiated. Although most products are sold for the prices indicated on tickets and labels, there are many occasions when customers ask for discounts. In these interactions, volunteers and potential customers revise the values attributed to products in the previous stages of revaluing. Bargaining is a creative process in itself: quality and condition are re-inspected, product categories are questioned (e.g. vintage vs. old), things are unpackaged, tested and repackaged; in the end, prices are reconsidered and, if needed, new tickets stamped.

After customers have made shopping decisions, second-hand products are brought to the counter and bought. This is the moment when values that were dubious and unstable are crystallised through economic and social transactions and the 'discrepancies between objects and things' (Dominguez Rubio, 2016) are harmonised. As Rubio argues, the distinction of how 'things can take different object-identities over the course of their lives' facilitates a 'more or less stable position that has to be both *achieved* and constantly *negotiated* over time' (p. 63). At the op-shop, the negotiation of these discrepancies occurs through the appropriation of donations as these are turned into second-hand products for sale and reuse involving agreements about the object-identities given to products by their functions as objects and by the growing individual and cultural meanings they acquire as things.

The acts of selling and buying become recognised moments in the process of ED4R for volunteers and for customers, which marks the temporal transition for things out of liminality. A transition that leaves a mark on the social memories created by the interactions that unfolded and in the sales' figures that fund the charity's works. The manager acknowledges that the processing and selling of these things involves a cultural responsibility. As he says, 'We have the power to destroy things, we have the power to pass them on to future generations'. Thus, the revaluing of these things facilitates the extension of lived and remembered pasts into the present and possible futures. The ED4R that happens at this op-shop enables temporal, spatial, material, cultural and imaginary bridges. In that way, one of the roles of this site by challenging obsolescence is as the cultural and material archive in which things are circulated back into active positions to continue to mediate socio-material interactions and cultural reproduction.

To sum up, this chapter has expanded the analysis of the conceptual framework of ED4R presented in chapter one, by providing a granular account of the activities that compose the op-shop's daily routines. By doing so, I have expanded on chapter two's definition of the op-shop as a research context to study and practice a design oriented to revaluing. Furthermore, this chapter has demonstrated the contingency of the op-shop as a site of practice. Next, to make sense of the everyday routines that compose this contingent approach to ED4R at this site, the following chapter presents the methodological frameworks I drew from to compose my practice-based research methods as I embedded myself as a staff and as design research practitioner in the shop.

CHAPTER 4.   DOING ED4R AT THE OP-SHOP

This chapter explains the methodological framework that guided my design research practice at the op-shop. First, I outline the concepts that informed my approach to studying practices of revaluing; this approach, as I will explain, is based on fields of Participatory Design (PD) and Design Anthropology (DA). The initial part of the chapter introduces three stands that comprise the way I attended the op-shop as a design researcher. I start by pointing to the way in which (1) *ethnographic and participatory* approaches informed a continual interventionist practice, here I account to the deliberate actions that determined the shifts in our routines that opened spaces for reflexion and evaluation. Then, I highlight the practice of (2) *open-ended prototyping* as an approach to everyday revaluing and explain the role of (3) *things as participants*. These three aspects drawn from PD and DA are further illustrated in the latter part of the chapter where I present the methods implemented to examine and experiment with practices of revaluing at the op-shop. The methods were adjusted to the daily situations and followed a progression that required the continual modification of interventions which, as a whole, illustrate the creation of my design research practice in this context. These methods comprised: facilitating PD workshops, video ethnography, prototyping new systems of revaluing and product categories and contingent interventions that happened 'on the move', as part of the everyday routines. Overall, this chapter provides a conceptual and practical grounding to explain my approach to the design research.

Figure 87 – My various roles as op-shop staff

4.1.   Drawing from Participatory Design (PD) and Design Anthropology (DA)

As introduced earlier, my practice-based research was methodologically informed by PD and DA. This section presents three key elements that are common to both fields that were central in my study. These were: the incorporation of ethnographic methods as part of co-design processes; the practice of prototyping; and the recognition of things as research participants. I explain next how these three elements allowed me to become immersed in the daily routines and socio-material negotiations of the op-shop and to conduct design interventions that were oriented to exploring how the everyday processes of revaluing could be done differently.

While the research processes evolved through loops of ethnographic inquiry and co-creative interventions, this continuity had an unclear structure during the process through which the fieldwork and design immersion occurred but for analytical and writing purposes, the second part of this chapter will present this process through four methods (in section 4.2.).

4.1.1. Ethnographic Participation and Intervention as a mode of action

PD and DA researchers adopt ethnographic methods to approach the design process and inquiries at specific research sites; where they engage with people and things, participate in shared activities, and identify opportunities to facilitate co-creative processes. In doing so, researchers gain an insider's perspective and through this process, participants can become aware of their creative potentials. I drew from an ethnographic approach and embedded myself in the op-shop which allowed me to gain a broader understanding of this context and of the work of volunteers. A work that I acknowledge in this thesis in terms of being practitioners of designing for revaluing. To understand their role as practitioners, emphasises on the politics attributed to ED4R as a kind of designing undertaken beyond design studios that has the potential to foster practices of sustainability. As I became a practitioner myself, I found opportunities in our everyday practices for introducing interventions oriented to harnessing and exploring alternative approaches for designing for revaluing.

The articulation of ethnographic perspectives from PD and DA gave me a range of theoretical and practical tools which I brought into the op-shop to attune with the daily routines, with the sensorial experiences of the shop and the cultures of its practitioners. To orient my design research inquiries, I directed my gaze to mundane and subtle movements and interactions between people and things and engaged in the everyday routines of administrative staff and volunteers through my different roles as weekend manager, day coordinator, and volunteer. Through these embodied and emplaced ethnographic experiences (Pink, 2015), I learned to recognise opportunities to engage in creative practices with colleagues, who became research participants, and collaborated with me, exploring together the intentions and the courses of our daily practices around the revaluing of things that led us to experiment with different ways of undertaking these processes.

As a design researcher, my approach to ethnographic methods has an interventionist character. An interventionist approach to practices of revaluing meant that neither I, as a design researcher, nor the staff as participants played a passive role; instead we all had an active part in conducting, contesting and re-creating our daily routines of the op-shop. Intervention has been a key concept in DA and PD; combining insights from both fields I developed an understanding of intervention as a form of inquiry (Halse & Boffi, 2016, p. 100), in which the design researcher becomes a 'participant interventionist' (Karasti, 2010) who is involved in the 'co-construction of meaning' (Pihkala & Karasti, 2016). In my research, having an interventionist approach to ED4R helped to configure a research practice that was open to ongoing designing as part of the everyday research process. This way of doing research, combining ethnography and creative actions, can be understood as a 'blended practice' (Y. a. Akama, Pink, & Sumartojo, 2018). Furthermore, the notion of intervention allowed me to recognise the politics of participatory and ethnographic designing (Light, 2015) that were involved in coming into the shop to collaborate and design with its staff and things.

My immersion at the shop was an intervention in itself that enabled me to explore design research inquiries through situated action. The politics of this design intervention, as has been discussed earlier in positioning myself at a site and with practitioners involved in revaluing, an immersion that entailed assuming responsibilities in the shop's operations. Furthermore, my politics undertaking this design research involved maintaining a transparent and collaborative dialogue with the op-shop staff. Both in terms of our revaluing routines, and in terms of the reflexion and research analysis of these everyday practices. While my roles as volunteer and manager at times became diffused and passed unnoticed due to my familiarity with our working routines, as a design researcher I learnt to analyse constantly during the research process by keeping ethnographic records (field notes, photo, audio and video recordings) and by having intervals in the fieldwork that alternated with stages of analysing with further reading and writing at my home and university desks. These stages of analysis away from the shop were crucial when I came back to the shop, as the insights gained in these moments of distance, inspired conversations with the staff about ways of understanding our routines of revaluing and opened instances of collaborative analysis.

4.1.2. Prototyping as a form of open-ended designing

The blended character of my research is visible in the methods I chose and developed for studying practices of revaluing. One of these methods is open-ended prototyping. However, the kind of prototyping I practiced is different to traditional understandings of this method in ID that are oriented to materialising design concepts to test them and refine them before manufacturing for commercialisation. The combination of PD and DA helped me to experiment a hybrid form of prototyping that is useful for expressing collective ideas in tangible ways, so they can be explored and tested in a continual form of inquiry. A notion of prototyping that is distinct to ID's method of consolidating finalised design solutions. As the research evolved, so did my understanding of prototyping, from being an object-centred method to becoming a form of constant 'dialogue' that allowed us (participants and I) to conduct material and discursive forms of inquiry around the revaluing of used things. In PD, prototyping has been similarly discussed as a fruitful approach to 'co-developing

affordances and favourable conditions for continuously sharing experiences and negotiating meaning' (Björgvinsson, 2008, p. 98). A kind of open-ended prototyping that design researchers working in the Malmö Living Labs argue that has the potential of fostering a design that is oriented to situated action and social innovation that is 'moving from a project-based approach to long-term open-ended infrastructuring' (Hillgren, Seravalli, & Emilson, 2011, p. 181). This approach to prototyping can work as a 'composionist tactic that can be appropriated by participants to drive their own making activities and shaping the space according to their needs' (Seravalli, 2013, p. 1). In this view, prototyping becomes embedded in practices aimed at opening production in which participants work together in processes of value creation (Seravalli, 2013, p. 4).

An element at the centre of this kind of prototyping was improvisation, which manifested in the ways in which we were open to defining our activities in response to the things available and daily situations. This openness fostered a disposition and a team dialogue that facilitated a continual prototyping, which involved the speculative generation of ideas about how daily routines could be undertaken differently, while we were doing them. The ideas that we materialised found materials and things that were already at the op-shop as either donations or tools. Applying this method, volunteers and I were able to make quick design interventions to accommodate areas of storage and display for their immediate staff use and customer interaction. The resulting prototypes could be systems for classifying donations, shop layouts to make more efficient use of space, and display setups to attract customers. Through this prototyping, it was possible to test and refine ideas 'on the spot' and keep them open for continual change. Prototypes marked transient outcomes of constant dialogues that changed as our conversations evolved and as things circulated. While some prototypes became part of daily routines, others lasted few days or even hours, depending on the circumstances and situations that had generated them. In all, in my research, the notion of prototyping can be understood as an analytical tool that helped me to address and account for how there were unspoken, but intentional practices at the centre of revaluing, such as storage of things, accommodation of spaces, or interactions with clients. As these practices became explicit, it was possible to assess their impact via customers' responses and sales feedback.

However, the open-ended aspect of this form of prototyping does not imply that there were no boundaries and that all ideas became materialised. In fact, it involved everyday politics in the negotiation processes required to find agreement between all participants; to fit ideas within institutional guidelines, and deal with space capacity and staff availability. As design research methodology, prototyping allowed us to materialise and test, not only structural aspects of products and space configuration but mainly themes and ideas that emerged in the everyday as different people met temporarily to negotiate and define forms of valuing and meanings of value. Examples of this form of open-ended prototyping include the creation of new product categories and the systemic changes involved in setting these categories that included conversations as prototyping.

4.1.3. Things as participants

The form of collaboration comprised in this prototyping involved an openness to recognise the different roles that all participants present at the moments of coming together and how

they played in the constitution of the interventions for revaluing. This included the staff in charge of specific tasks but also the donations at hand.

To attend to the role of material 'things' as participants at the centre of design practice and research, we need to understand how it is that things can participate. In design practice, things have had a central participation at all stages of its processes. Generally involved as tools for triggering inspiration as mediums for framing ideas by sketching and by making mock-ups, which are then turned into prototypes, used for testing before proceeding with manufacturing products, systems, and technologies for use and interaction. Furthermore, from a research approach, the fields of material culture studies, in DA, and PD offer three perspectives with which we can understand and investigate the participation of things in the everyday life.

Firstly, from a PD and DA perspective, Binder et al have proposed the term 'design thing' as 'a socio-material assembly that deals with matters of concern' (Binder et al., 2011, p. 1). In the context of this research, as pointed earlier in the introduction, the notion of thing refers to the mutual constitution of the social and material aspects that are embedded into and generated within the processes of ED4R which, in this case, revolve around the everyday politics and designing practices that deal with: the contingent challenges of processing used things for their revaluation of, for example, product safety, functionality, hygiene, or legality. All the while we are also ensuring the generation of funds for the charity's social agenda. By also ensuring to meet the basic budgets stipulated to sustain the costs of the shop's operations, which had implications of diverting things away from becoming waste and from being sent prematurely to landfill sites.

With these particular concerns in mind then, the design things that I refer to in the context of the op-shop refer specifically to: the development of systems for classification of donations by product categories; the creation of shops' 'in-house standards' for the maintenance of these systems; the forms of attributing value to donations and to making this value explicit in prices and labels and the configuration of areas for storage and display aimed at fostering interactions with visitors and product exchange.

Building on this understanding of 'design things' was helpful to recognise that donations could not be separated from the sociality which they had originally been attributed with by their designers, producers, and first users. As well as by the op-shop staff and customers who continued to add to this sociality through the revaluing processes. The recognition of things as participants increases the roles for material participation in processes of collaborative designing, a notion that relates to Lindström and Ståhl's call for a new space in PD that enables 'movements from socio-material entanglements to everyday material participation' (Lindström & Ståhl, 2016, p. 42) in which the materials and beings that join the unfolding practices of the everyday are in an ongoing processes of becoming stakeholders. Whom, as they meet for instance at the op-shop, all contribute to fostering a space to generate various forms of value from circulating and selling donated, used products.

Secondly, Giaccardi et al's recent DA proposition offers another angle on the role of things, by pointing to the notion of 'thing perspective' (Giaccardi, Speed, Cila, & Caldwell, 2016) to invite researchers to ask 'what happens if we shift the focus to objects that break down,

get dirty, contest their original function and even begin to perform autonomously? What if we try to understand the world from the perspective of a 'thing' that is situated within relationships with other entities and that has the potential to influence the existence of those other entities?' (Giaccardi et al., 2016, p. 235). The authors further argue for the role of things as 'co-ethnographers' that can provide 'unique insights about the temporality, movements, and relationships of objects and thus, a new perspective to think about human practice' (Giaccardi et al., 2016, p. 245). A perspective that offered me a practical way of 'conversing' with donations to uncover value in them by interpreting their marks of use, materials, brands and condition and by looking beyond their possible signs of decay, dirt and brokenness to find some of the hidden stories of provenance, which had the potential of increasing their value (for example, in the cases of antiques and collectables).

Thirdly, anthropological approaches to 'things', rooted in material culture studies and design anthropology offer insights that informed the way I engaged with 'things' in my design practice. For example, the anthropologist of material culture, Daniel Miller (Miller, 1987, 2005) who in his earlier work has argued for a consideration of the agency of things has sought to address the problem of 'how can one ask questions of things that cannot speak for themselves?' (Miller, 2008, p. 2) and has shown how discussing objects with participants can be used to mediate dialogues, whereby in his work, he asked people to tell him about the interior of their homes by placing the focus on the things rather than asking the questions directly about the people. By building on this approach and acknowledging a collaborative role in things as participants in the everyday routines of the op-shop contributed to facilitating and mediating conversations among the people involved in the revaluing processes including staff, donors, and customers. As shown below in section 4.2.2. many of my discussions in the op-shop followed a similar form of inquiry and were centred on the 'things' that we worked with, on an everyday basis.

The focus on things as an entry point for my inquiry meant a shift in the subject of the questions that I formulated for the staff as we were working. Rather than asking them directly about their personal reasons for valuing things. For example, why they were keeping or discarding something, I asked questions focused on the latent values of things that could make it possible for them to be revalued or, in contrast, on what aspects led things to be devalued (e.g. being broken, dirty or illegal). By having a discursive focus on the things, we were able to minimise tensions from arising in our conversations when, for example, we had contrasting criteria for valuing things. Then, by bringing back the focus to the donations that were mediating our conversations, we were able to dissipate part of the awkwardness, which led us consequently to open the discussions to sensitive themes of disposability and of the creative possibilities for challenging some of the imposed lifecycle boundaries of the commercial systems of planned obsolescence.

Altogether these three views, from PD, DA, and material culture studies, have allowed me to position donations in this study as playing a key role in the processes of revaluing either as material participants, as things providing ethnographic angles of analysis, and as objects used to mediate conversations and to create prototypes with. A role that had additional implications in the sustainability agenda of ED4R. As by revaluing these used and old things and by keeping them relevant within our everyday lives, it is possible to foster alternatives of consumption and of material relationality, other than relying solely on short lifespan 'brand new' product development, consumption and disposal.

To sum up, the design research practice that was developed at the op-shop was part of a collaborative process that unfolded in the everyday routines of revaluing in which staff and donations were in a continual dialogue about uncovering values. This consequently led to a series of daily interventions that manifested in spoken negotiations and in an open-ended prototyping of systems of sorting, areas of storage and store displays. The following section continues by presenting the design research interventions conducted at the op-shop, which comprised the approaches undertaken to explore alternative ways of processing donations within our daily routines of revaluing. While I experimented with various different kinds of interventions, the four approaches summarised below emerged as the core modes of intervention that characterised my practice: facilitating PD 'workshops'; talking and working with video; new product categories and 'on the move'. These four methods served to document a range that I explored to register the routines of revaluing, as well as becoming sequential vehicles that transformed my own practice of designing. As demonstrated below, these methods combined various design approaches, drawing from my training in ID, attending to materials and processes and situating my practice in the daily routines of op-shop visitors and practitioners.

4.2. Four methods for practicing and researching at the op-shop

4.2.1. Facilitating PD 'workshops'

The first collaborative interventions that I conducted were based on the format of a co-design workshop. Workshops are a fruitful platform for the constitution of 'third spaces': as hybrid spaces created in-between the sites of frequent practice of designers and participants (Muller, 2003). Space where participants come and where the designer creates an environment with the help of design tools and techniques to facilitate moments for sharing expertise and combining knowledge that can foster the creation of plans for future action (2003). Conventionally, co-design workshops consist in the facilitation of staged encounters between design researchers and lay-design participants (Sanders & Stappers, 2013). These encounters follow a script of activities provided by the designer who plays a role of facilitator. During a workshop, facilitators utilise 'generative toolkits' with the participants to trigger and guide conversations and activities around the themes at the centre of the workshop. The materials created through these activities make explicit the tacit knowledge of participants and provide insights that inform future steps in a design process (Sanders, Brandt, & Binder, 2010; Sanders & Stappers, 2014). In the first stages of my ethnographic immersion, co-design workshops enabled me to conduct design interventions in which I could interact with op-shop volunteers as participants and gain an initial understanding of the specific types of knowledge that volunteers put into practice when transforming used things into second-hand products. The workshops I facilitated allowed me to identify and open up moments in the routines of the research participants where we came together as a team to explore specific aspects of the process of revaluing and to discuss possible strategies for engaging with these, as well as speculating about how they could be done differently.

I conducted three workshops where I adapted the conventional co-design approach, introduced above, to the specific circumstances of my research. In the workshops, rather than following a predefined script, I improvised a series of creative activities that facilitated the constitution of 'third spaces' where the volunteers and I were able to both

make sense of our own practices and develop a collaborative understanding of processes of revaluing. Although these workshops occurred as part of our everyday routines and in the shop working spaces, so its constitution as third space was not completely out of our areas of practice, each encounter did require on the part of volunteers, a disposition and willingness to participate in conversations and to take time away from their usual routines to divert into workshop inquiries and activities. To generate this disposition, I improvised co-design toolkits composed of things I found at the op-shop and appropriated as prompts for conversations and activities. By using materials that volunteers were familiar with and that were already part of the everyday practices we were able to potentiate this familiarity with the reflectivity that these encounters facilitated, to generate ideas, prototype them and test them during the workshops. Since these ideas were directly related to the work of the participants, they continued evolving and were refined and implemented after each session.

The workshops revolved around the revaluing of different types of donations such as toys, clothing and damaged clothing. The workshops helped me to understand specific actions at the centre of revaluing (like bagging, listing, mending) as well as the tools required for conducting them (such as bags, price lists, mending station). This understanding allowed me to focus the outcomes of each co-design session towards the implementation of procedures, guidelines, and workstations that enabled new practices around sorting, mending and pricing donations.

4.2.1.1. Co-designing new systems: Bagging toys for revaluation

At specific times of the year, the number of toys donated increases to the point that soft and plastic toys cannot be accepted because the op-shop storage capacity is exceeded (see fig. 28). This meant these toys were either rejected from donors, redistributed to the warehouse or, if their chances of revaluing were low, disposed of. This situation motivated me to explore this issue with other volunteers through a co-design workshop. The 'toys workshop' was conducted on a day when one of the experienced volunteers in processing toys was working on shift. I introduced the activity to the participants by inviting them to reflect on and discuss the processes and criteria they employed when revaluing toys, as a way to make their experienced practices visible and accessible so that they could be shared with less experienced volunteers in the form of creating materials or guidelines that explained these processes.

In the workshop, we analysed current practices for revaluing toys and looked for ways of extending and leveraging them. Through talking about our existing practices, we discovered that an effective way of transforming used toys for sale was selling them in sets according to themes, sizes, and characters, and packaging them in plastic bags according to these classifications (fig. 94). We also noticed toys that due to their material and cultural values could be separated from the other toys in order to increase their value by displaying them as 'treasures' with the homewares (fig. 96-97). After recognising these practices, we thought that procedures of bagging could be systemised and shared with other volunteers. The outcome of this workshop led to the installation of plastic bags in the receiving area of donations (fig. 95), where volunteers could drop toys once they were received. This made the process more effective and minimised the loss of pieces.

Figure 88 - The process of bagging toys by themes, ages and gender of future users.

Figure 91 – Treasure toys sorted
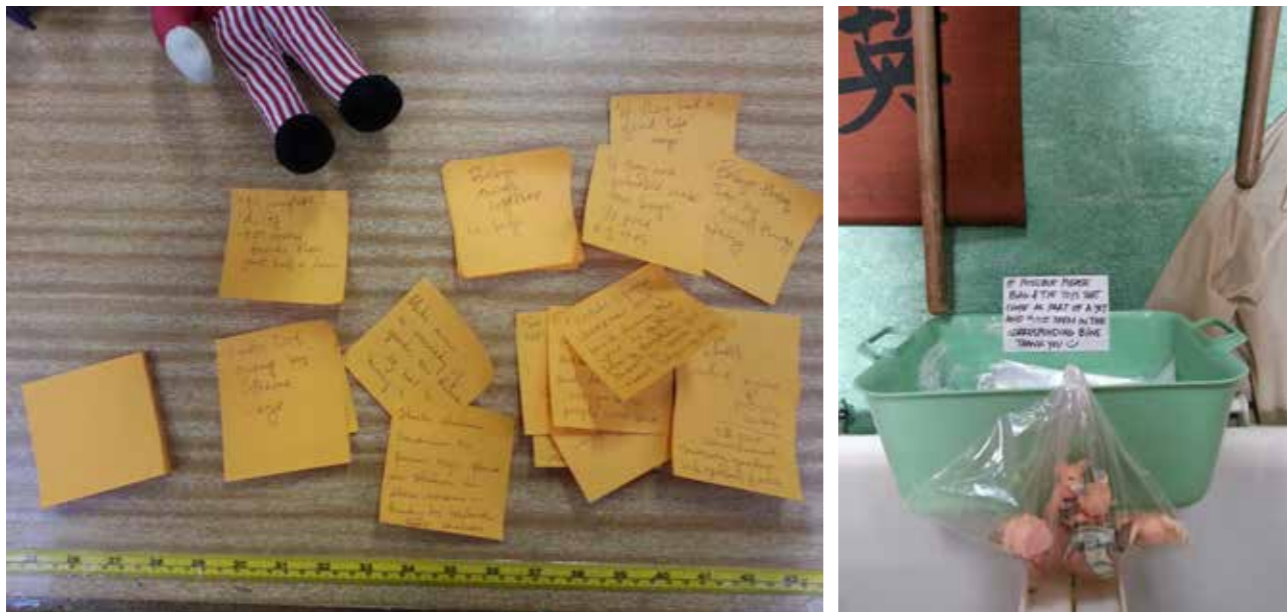
Figure 89 (left) - Sticky notes used to register the criteria for recognising value in donations that we discussed while working with toys.

Figure 90 (right) - *'if possible please bag and tie toys that come as part of a set and place them in the corresponding bins. Thank you :)'*. Bins were reused as storage containers to classify toys at the driveway by girls, boys and small soft toys.

Figure 92 – Treasure toys displayed with homewares

4.2.1.2. Gathering value criteria: Listing prices

The purpose of the second workshop was to identify the ways in which experienced volunteers processed clothes and made their knowledge explicit in order to share it with other volunteers new to this task, with volunteers pre-sorting donations at the receiving area. This workshop involved the participation of six female volunteers from the clothing section.

In the workshop, we met at the tearoom to discuss ranges of second-hand prices based on brands, types of clothing and materials. It lasted nearly two hours, in which we used old price lists and collaborated to make new lists with key criteria for revaluing clothes. The new lists were classified by the dominant gender categories used in the op-shop, included more brands and divided clothes into price ranges, which indicated what each category could be worth as second-hand items and what customers could be willing to pay for them, ranging from expensive, to average and low prices. In addition, we established common prices according to the product types, aimed at standardising some of the pricing procedures for the average and low-value items (e.g. men's tops at $5), and highlighted the potential value of high-quality materials like natural fibres such as silk or pure wool. We ended the meeting with drafts of the lists that were later revised, printed, laminated and installed in the area where donations were received and at the workstation where clothes were priced (Fig. 94).

Figure 94 - The created lists installed at the workstation of clothes to guide pricing processes.

Figure 93 - The workshop in the tea room: revising and creating the lists of prices to guide the valuing of clothes.

4.2.1.2. Repairing for revaluing: mending station

The third intervention was aimed at facilitating a workshop around a 'mending station'. I met with the manager and the Friday-Coordinator to propose the establishment of a mending area. They pointed out to me that minor mending of holes in good quality clothes was occasionally undertaken by Mary, a volunteer who came to the op-shop on Thursdays. Besides these isolated cases, they considered that the limited amount of volunteer's working time was most efficiently spent processing donations in good condition rather than mending damaged clothes. Despite their reservations, they allowed me to organise an area for this process. I involved the participation of other volunteers in this activity by inviting them to imagine how the mending station might look. Using furniture already available and tools donated to the shop such as a sewing machine, an iron and haberdashery kits we implemented the area and conducted a 'mending trial'.

The creation of the mending section (fig. 95) had two key outcomes. It demonstrated as pointed out by the managers, the inefficiency of mending clothes in terms of time invested and economic return. Also, the mending area became a site where volunteers started to store donations they associated with this topic such as fabrics or haberdashery, which until that moment were dispersed. The new practice that emerged around the mending station made explicit the need to create a new product category in order to revalue these things and subsequently offer them as second-hand products in the shop. After a year the mending area was eliminated, minor damages continued to be mended by Mary, and the sewing machine and other tools were sold. However, the newly introduced categories remained and continued (Fig. 96).

Figure 95 - The mending station located in clothes storage, classification and pricing area.

Figure 96 - A new product category created for Haberdashery at the shop.

To sum up, these three workshops were useful opening up 'third spaces' in our everyday routines where we could discuss, share and make explicit the tacit knowledge at the centre of revaluing processes. My exploration of these methods facilitated the creation of 'third spaces' where volunteers, with expertise in different areas, came together to explain their practices of revaluing. In turn, their contributions were valued, communicated to others and helped to broaden our understanding of the opportunities for appropriating the revaluing systems. The material outcomes of these collaborative activities were integrated into the routines of the shop and made explicit the key role that simple actions, such as bagging, listing, and mending, could have in the process of revaluing.

This improvisatory approach to the workshops was possible due to my ethnographic and participatory immersion at the shop and allowed me to understand the context in which the revaluing of toys and clothes happened. This understanding was enriched by my own practice in the roles of volunteer and manager and facilitated the recognition of opportunities to intervene in these areas. We used toys, clothes, bags, lists and other things available in storage as probes to trigger conversations and to explore new ways of classifying, packaging, fixing and pricing products. By conversing about how things could be different and using things found in the op-shop to express our ideas, we engaged in forms of prototyping; the outcomes of which were immediately integrated and which impacted on the everyday practices of the op-shop.

Upon reflection, the workshop format was a fruitful yet typical approach to start testing some of the methods that could enable me to recognise, as well as invent, practices of revaluing. In hindsight, it illustrates approaches that I was most comfortable with and,

being new to participatory design, what I expected PD research methods could be. However, when I examined what I did later, I became aware of the need to adapt the methods to fit within the existing routines and practices of the shop. Firstly, I realised that the suggested activities could not take staff away from their delegated tasks because this meant inconvenience and inefficiencies in other areas of the shop's productivity. Secondly, to have a better understanding of the ways in which revaluing occurred, I needed to consider tools other than note taking and audio recording that I used. To account for the continuity of our conversations, but also to record the embodied experience and gestures, the interactions with colleagues and the emergent instances in which the practices of revaluing unfolded. Thirdly, my expectations of delivering long-lasting tangible outcomes needed to become flexible in order to acknowledge the ephemeral character of the things on their paths of movement in the shop, and of the everyday adaptability of the procedures and routines of revaluing. Thus, I needed to become open to developing an approach to practicing and investigating revaluing that was also ephemeral. These insights from facilitating workshops led me to rethink the research and practice-based methods and seek to adjust them further to the daily circumstances of the op-shop.

4.2.2. Video conversations as interventions

Another intervention that allowed me to collaborate with volunteers to understand the process of revaluing was *talking and working with video*. This was inspired by Pink's work on visual ethnography (Pink, 2007a, 2007b), and in particular, the use of video to collaborate with participants in developing an understanding of their own experiences. This method incorporates movement in the form of 'video tours' or 'video walks' to allow as Pink proposes, that:

> 'research participants to use their whole bodies and senses to touch, show, smell and verbalise what is important to them about the environments they make and inhabit' and 'enables researchers to co-produce materials that offer rich opportuni ties for reflexive analysis' (Pink, 2015, p. 130).

As with other methods, I adapted video ethnography to specific characteristics of my research. Initially, I explored the method of visual ethnography using action-cameras attached to trolleys to capture their movement and the processes through a 'thing perspective' (Giaccardi et al., 2016) and asked volunteers to use a GoPro to record their activities from their eyesight perspective. This particular use of action-cameras provided a visual understanding of different practices from a trolley and from volunteers' perspectives. It gave me insights into the hand gestures of volunteers, about the granularity of their procedures and about the paths of movement that donations and staff transitioned through in the processes of revaluing. However, due to the same angle of recording and to the rapid and varied movements of working routines, we quickly realised the camera was uncomfortable for the participants to wear and altered the normal development of their routines; moreover, it was challenging to watch and analyse, given the nature of the movements and the dizziness this caused.

After finding out that action cameras were not the best method to record our everyday routines and design research activities, I continued by using my mobile phone camera

to photograph, video and audio record from my own point of view. I found out that using the phone seemed to be less invasive and intimidating when talking with volunteers about their activities. It helped that we were already familiar with my mobile phone since we often used it as a tool to search for the market value of donations online. Thus, the familiarity of the mobile phone, the variety of its functions and its suitable size, allowed me to simultaneously record and participate in conversations and situations without the additional distraction that installing and wearing the action-camera generated. This provided the mobile phone a participant role in mediating and facilitating instances of everyday recording and collaboration. For instance, by enabling the recording of research-based conversations, in which I was 'behind the camera' asking questions to practitioners, to allowing a smooth transition to practice-based activities happening 'in-front of the camera' in which I joined the scene as a practitioner myself. It also meant that, by having the information recorded at hand, I could have access to it immediately at all times in order to open spaces of dialogue with volunteers. For example, our recorded dialogues often informed stages of reflexion and analysis as we looked back at the experiences lived and recorded.

Talking and working with video became a research approach that allowed me to find out about volunteers' practices of revaluing through forms making, telling and enacting (Brandt, Binder, & Sanders, 2013). The conversations generally started with questions about their background and their specific job at the op-shop. As the conversation unfolded, I asked further about processes, criteria, knowledge, and procedures involved in transforming used objects into products for sale. Volunteers' answers were sometimes accompanied by enactments and demonstrations of the practices we were talking about. These conversations were used to identify a series of concrete practices of classification, cleaning, pricing, labelling, distributing, displaying and selling, which constituted their routines. Moreover, we used our conversations as points of departure through which to introduce shifts in the practices we were talking about by initiating a prototyping method that allowed us to test and assess new ways of doing things further.

The examples below present two video conversations, the first is with Barbara when she was working with jewellery and the second is with Gerry and Tess when pre-sorting donations at the driveway.

Figure 97 – Barbara making a necklace

With Barbara, our videoed conversation registered 'what she did' when she was working with the jewellery. During the conversation, we talked about all the stages involved in processing these types of donations and preparing them for sale. At one point in the conversation, I intervened to point out a container with odd pieces and asked her to show me how she used these materials in her work. Barbara answered my question by taking a pendant and slipping a chain through it. When I asked her 'what just happened there?' she exclaimed, 'I've just made a necklace!' and explained that as part of her work she had to be 'inventive with what we've got'. In this example, my previous knowledge of the materials available in storage in this section of the op-shop allowed me to recognise the pendants and chains as potential participants in our conversation and I pointed to them to trigger a demonstration of what Barbara was describing in the video. Our conversation became a form of prototyping, where we explored ways of appropriating materials at hand to create new products and explore alternative ways of revaluing.

Figure 98 (left) – Tess proposing a St Patricks Day display

Figure 99 (bottom left) - The container installed to collect things at the driveway for the provisional category of green products for St. Patricks Day.

Figure 100 (bottom right)- The display created during the weekend of the 17th of March for St. Patrick's Day.

Not all of the video conversations I had resulted from invitations I made to participants. Improvisation played an important role in this method. In particular, the use of my mobile phone made it possible to record everyday conversations spontaneously and prompt interventions in revaluing processes. One of the interventions resulted from an improvised video conversation that occurred while Gerry was explaining to me how he pre-sorted donations and Tess came into the scene with a green t-shirt, suggesting a special display for St. Patrick's Day, which is celebrated by people with Christian and Irish backgrounds and involves wearing green things on the 17th of March (fig. 98). The year before, Tess and I had improvised a green display for St. Patrick's Day following a customer's suggestion and Tess was hoping to prepare another display this year. As the conversation unfolded, I proposed including an additional container (fig. 99) in the pre-sorting system to collect things related to the St. Patrick's theme, which the three of us agreed on. We used the container to gather things for two days and with a selection of other green products that were in storage, we created a St Patricks shop display for the weekend (fig. 100).

Other video conversations were helpful for understanding the embodied procedures of volunteers, in particular, they enabled us to make explicit practical forms of knowledge associated with the senses, which are not always easy to explain verbally. One of these video conversations was with Andrew, a volunteer who works in the driveway receiving and sorting donations (see 3.1.2). Andrew explained to me that sorting requires '*very hands-on, basic sort of skills*'. When I asked about these skills, he started to demonstrate them for the camera by sorting a bag of mixed donations he had in front. As he opened the bag and engaged in sorting its contents, he explained how his senses and expertise were focused on the identification of brands, quality materials and, overall, on finding saleable things. It is '*just a matter of going through and having a good look*' – he said while inspecting the bag and then added – '*I can tell straight away most of this is gonna be pretty ordinary*', and explained that he knows it '*just [by] instinct, that's all*'. In his explanation, Andrew made explicit how the senses, or what he calls 'instinct', are fundamental when determining the potential saleability of donations.

Video conversations allowed me to understand practitioners' work and allowed them, in turn, to make explicit practices that often remained implicit.

4.2.2.1. Participants words on practice

Figure 101 – Practitioners words on practice

The method of talking with video helped myself and volunteers to make sense of their own revaluing practices and of the different knowledge and criteria that they implemented as part of the process. When talking about their work, it became evident how it is influenced by life experiences and background knowledge which are instrumental to continually assessing and adapting to daily situations in practical, efficient and aesthetic ways.

For instance, when asking John about the kinds of skills required in the process of placing and classification, he acknowledged how the skills he used were a combination of previous life experiences adapted to an on-going process of learning to respond to everyday situations. As he said:

> '*Throughout life, everybody learns different types of skills and a lot of those skills are adaptable to many, many different situations and it's just a matter of adapting the skills you've got to the situation you are in. […] You learn new ones along the way, that's all part of the learning process, it's all part of life, it's all part of growing up… You are always learning, you are always adapting, you are always thinking of new ways to do things which are going to be easier, quicker [and] more efficient…*'.

This continual learning process unfolds and is refined through practice. While it may be difficult to articulate because its learning may pass unnoticed as part of often unspoken daily routines, it can still be recognised by practitioners as a way of doing things that work well for them. Gina, one of the volunteers in charge of organising the display of the homewares section, made evident the hidden character of the skills learnt through practice when she explained how she arranged the front shelves of the shop:

> '*It's very hard to say how I do it, I just know what looks best, and then I stand back and if does not look good, I fix it. I can't explain how I do that, it's just something that is inside me I guess, I just know how to do a display… I've been a pharmacy rep all my life, nothing to do with any of this, except my house, my house oh, I do it just great, that's where I practise.*'

This process of gaining life experiences that continually refine their creative and technical skills enables staff to adapt to new situations as these arise. These skills help volunteers to appropriate the materials and spaces available to make room to prepare donations for their transformation into second-hand products for sale. Michael, a volunteer in charge of repairing furniture and of making new display units for the shop, explained his open-ended practice by saying:

> '*I noticed there were things being donated which were pretty well useless to be sold because they were damaged in ways that could quite simply be fixed and so I started repairing things, putting things together where they were broken… I suppose my main job is maintenance, repair, refurbishment of furniture items that come in and also equipment that belongs to the store or display items that belong to the store that need any sort of work to keep them in good condition… I've always been interested in woodwork and metalwork and working with my hands generally and it's just, I suppose, experience. I've never been taught anything particularly, I've just worked things out for myself as I go along*'

Michael's explanation of his work helped me understand his practice as a form of everyday designing that responded to the need that he recognised of fixing broken things and that was enabled due to his experience and to his disposition to learn through the processes of making. Besides witnessing the things that he made for the op-shop and after learning from his accounts about his experience and skills, my understanding of his practice as an example of everyday designing became evident too when he introduced to me his toolbox and trolley. Which he presented as his portable 'headquarters' (fig. 102), and

which he explained as the current result of a few iterations that led him to refine the safe and comfortable portability and its quality by adding certain wheels, handles, and testing different materials by using the previous prototypes over time.

Figure 102 - '… this is about the fourth or fifth rebuild 'cause I built a basic trolley to start with and then I thought of ways that it could be improved… It evolved over a period of time to suit what I wanted to do with it…'

Overall, John, Gina, and Michael explain their approach to revaluing as a practice in the continual development and are open to adapting to the everyday circumstances of the op-shop present.

Video recording conversations played an important role in my research as it added a purposeful layer of self-awareness that made our conversations different from when we were simply working and talking about our practices without recording. In this way, the participation of the video camera and recordings created a fruitful space for reflective thinking, acting like a probe to open spaces for reflection that had the potential of becoming entrances to extend our practices of ED4R. By combining ethnographic methods and design research practices, I was able to use conversations, topics, and materials at hand as resources for material inquiries and as triggers of action. In contrast to the co-design workshops I conducted, where I took volunteers away from their routines into a space that I staged and facilitated, the video conversations allowed me to study practices of revaluing within the spaces and times where they originally happened and as they were happening. This meant I could have a dialogue with volunteers about how to perform routines differently and put new ideas immediately into practice.

4.2.3. Prototyping new revaluing systems and product categories

Other series of interventions revolved around the use of prototyping to extend the existing classification systems, according to which donations are processed and sold as second-hand products. These interventions introduced new categories and themes to classify donations, which extended the procedures of sorting, pricing and displaying. At the op-shop, the potential value of donations (as well as the store layout and payment system) is based on a classification system of general product categories such as furniture,

homewares, clothing, and media. These categories are based on a classification system defined by the charity in order to keep track of the number of donations, sales, and profits. Donations that do not fit into such a system enter a limbo and their potential value can be in doubt. This situation makes evident that 'categories' in a classification system can be problematic because they privilege some points of view but at the same time, silence others (Bowker & Leigh Star, 2000). I was concerned with the existing classification system because, while it was useful to identify the value of some donations according to existing product categories, it rendered invisible the value of other donations that fell outside these categories.

Figure 103 – 'Pre-sorting system' of classification at the receiving area of donations (driveway of the op-shop).

The interventions around the classification system had a twofold objective: the first one was to make visible the value of donations, which the value was not explicit in the existing categories, and the second was to provide tools to keep these donations and integrate them into the current product categories of the op-shop. In this approach, I built on Boticello's study on reused clothing where she points out the important role of classification in second-hand markets. 'To extract the maximum reuse and resale value – she explains – the system of revaluing these "waste" items into new types of goods is heavily dependent upon the sorting process and, in particular, workers' abilities to reclassify second-hand goods according to their next life potentials' (Botticello, 2012, p. 167). Unclassified donations were often redistributed to other shops, discarded or pushed into existing categories, which made their value even more uncertain. Thus, through these design interventions, I attempted to reclassify them and to create new 'life potentials' for them.

To make the categories viable and visible I explored the creation of the new product categories with staff and volunteers. We prototyped and trialled several new categories including cassettes, haberdashery, costumes, crystals, ephemera and sports products. This approach to the creation and prototyping of new product categories worked as a platform to test and refine my attempts to make the value of donations visible, in collaboration with volunteers. The new product categories addressed four main issues: dispersed donations, unrecognised products that were being sent to other shops, obsolete things being disposed and unclear positions of placement for things that fell in-between other categories.

I have selected two contrasting examples below, one revolved around creating categories to create value around collectables and the other around donations that did not fit into any existing category, such as stationery. For the creation of these categories, we engaged with donations as participants to experiment with ways of putting them together that would enhance some of their hidden historical, cultural, material and functional values.

4.2.3.1. Collectables: Finding historical value in old things

One of the categories created through these interventions was called 'Kitchenalia', consisting of vintage kitchen utensils. This category came about when one volunteer commented on the high prices that old kitchen utensils, which we were selling at the op-shop for one and two dollars, were reaching in online second-hand markets such as eBay. This comment inspired the idea of creating a new area for displaying these items together in a dedicated space at the shop that could be called 'Kitchenalia'. Apart from revaluing dispersed donations, this new category had the potential for generating high economic value by presenting common objects as collectables which, in this case, was done by presenting odd kitchen utensils as part of a themed group.

Figure 104 - Two containers with labels saying 'kitchen utensils $1' and 'All loose cutlery 10 for $2'

To implement this new category, we used donations available to improvise display systems aimed at changing the customer's perception of old kitchen utensils. To prototype this section, we utilised a shelf that had been donated and selected some kitchen utensils to

be displayed in it. We made a 'kitchenalia' sign using a blackboard that had been donated and was in storage in the bric-a-brac room and placed it on top of the shelf (fig. 105). We also added labels to some of the 'kitchenalia' items, to explain the historical period from which they belonged. Progressively, as more volunteers engaged with the idea, they started to bring more old utensils from the kitchen section and populated the display with items they thought would fit into the new category. For customers, the section became a chance for engaging in conversations about memories triggered by the utensils and for acknowledging the historical, material and cultural values of these objects.

Figure 105 – 'Kitchenalia'

After some months of positive responses from staff and customers, managers and volunteers started to expand the idea at the centre of 'kitchenalia' to create new categories. One of these new categories was 'retro', which was used to gather old household items and exhibit them in a display in the front room of the shop (fig. 106). Then, the volunteers of the toys section created the category of 'vintage toys', to revalue old toys and antique board games, even when they were incomplete and had missing pieces.

Showcasing pieces made from high-quality materials, craftsmanship and production processes also demonstrated their durability in terms of functionality and of aesthetics. The objects displayed as 'kitchenalia' or 'retro' contrasted with cheap, mass-produced items designed within systems of planned obsolescence; which represented the bulk of donations received at the shop. Marking this distinction opened spaces for conversations with customers, who expressed their preference to buying second-hand products with quality, style, and durability, instead of buying new things of lower quality, indicating an educative potential by re-framing or re-thinking a product.

This concrete intervention presents a form of designing for revaluing where objects were

Figure 106 – Retro section in front room

symbolically appropriated and transformed into new things without any physical alteration. My original intervention, as well as those created by the manager and volunteers, echo the ideas of Dominguez Rubio discussed earlier concerning how the discrepancy between objects and things can be positive and generate new kinds of objects, for instance, when an old chair becomes a piece of vintage furniture (Dominguez Rubio, 2016). 'Kitchenalia' shows that one way of extending the life of existing things is to put them in a historical perspective that is made contemporary due to the acquired value that lies in its uniqueness.

4.2.3.2. In-between categories: creating value from gathering dispersed things

Scattered pencils, office supplies, and school materials can often be seen on their own as worthless and as a hassle for the volunteers processing them, posing challenges to find spaces for their storage, pricing and organised display and for little economic return, if sold individually. I noticed that stationery of this kind did not fit well into existing systems so they were often found in bins or left unattended in what is known at the shop as 'dumping grounds' (fig. 107), which are composed by donations that fall in-between categories that become visible only after accumulation.

The creation of the new stationery category was an attempt to make their identification and processing easier, and their diffused values visible. This intervention involved placing a container at the receiving area for the initial filter, assigning areas for storage and display (fig. 108) and inviting other staff members to join in the process of establishing the new section, if they had the time.

The variety of products in this category made its maintenance challenging and it only lasted six months before its storage and display areas were eliminated. However, the container at the receiving area was useful as it maintained the visibility of these things, preventing their loss and disposal and instead, diverted their paths of revaluation from the bins and from this shop, as they were redistributed to other shops in need of stock.

Figure 107 (previous page)- Before, this shelf was used for the accommodation of a combination of things of all categories without a particular intention of order and with the tendency to be messy.

Figure 108 - After noticing that many of the scattered things in this shelf could be organised as part of a common theme, odd things were rearranged to configure the stationery display.

After a year of prototyping several new categories and conducting interventions into the op-shop's classifying routines, we recognised four common characteristics necessary for new product categories to work. These were:

- Assigning a container at the receiving area to pre-sort a new category
- Creating a space in the storage areas for specialised evaluation
- Finding an appropriate space for their display on the shop floor
- Maintaining the category by identifying, valuing, displaying and constantly organising the areas by a dedicated team

If any of these characteristics were not clearly defined, communicated and adopted by the staff involved in the sorting, storage, valuing and displaying, it meant that the new category did not work and things defaulted back to falling in-between other sections.

This method of creating and maintaining new product categories revealed lessons about co-designing revaluing practices in several ways. It changed established forms of classification and valuation and enabled ways to open alternative spaces for objects to become visible and to make their hidden value easily accessible and recognisable for staff and customers. This also meant opening spaces of discussion and evaluation where the team contested and analysed some of the boundaries of revaluing. These boundaries were often discussed in relation to the time that volunteers had to dedicate to classifying and processing donations according to new product categories, which pointed out the challenges of its maintenance, and the use of shop space for their storage and display. When these criteria were contrasted with the economic return that resulted from these new categories, many of them seemed to be unviable. The evaluation of new product categories comprised explicit negotiations (e.g. in monthly staff meetings) and tacit actions (e.g. during daily routines) in which volunteers and I shared the responsibilities, joys, and frustrations involved in creating and maintaining each category. For instance, while

working with 'kitchenalia' products led to often amusing conversations that were enjoyed, bagging old and used pencils was, in contrast, less enjoyable and the economic return less significant; hence the elimination of the stationery section and the permanence of 'kitchenalia' in the front room of the op-shop. In other words, this method made explicit the material, cultural and economic values of things by opening spaces to appreciate them as systems of things rather than as individual discrete items. Despite the differences in the values generated, creating new product categories enabled us to experiment with alternative forms of processing donations by engaging in an open-ended prototyping, which we used as a material form of inquiry to intervene and extend the systems of revaluing. This was an on-going process that permitted the investigation and practice of revaluing in a systematic way for over a year and that involved the creation of around 15 product categories.

4.2.4. Contingent and ephemeral interventions: Revaluing on the move

Many interventions occurred spontaneously without a concrete plan through my everyday routines as manager, volunteer, and design researcher. Various revaluing processes were improvised while on the move and they were short-term and transient. Since the materials I used in these interventions were ephemeral, their implications did not involve major systemic changes and involved just a few participants. It was only later, through analysis, reflexion and distance, that I was able to identify this as part of my method. While other interventions required authorisation and lasted for several weeks or months and turned into prolonged plans, these interventions emerged by chance in our everyday routines as I was doing things by myself or with others.

These interventions echo some of PD's approaches that are open to the messiness and uncertainty that comes with collaborative designing, in which the designers' practices involve an ongoing 'embodied knowing, with moment-by-moment shifts in position, focus and delivery' (Light & Akama, 2012, p. 61). An approach to designing in contingent situations that Akama and Light (forthcoming, 2018) have recently analysed with the notion of 'practices of readiness'. In which they argue that as the researchers embed in collaborative designing they bring into the situations their individuality and reflexivity that is informed by their own backgrounds and that infuses their 'attunement' and responses in unique ways (forthcoming, 2018). A readiness to respond that is informed by a bundle of subtle and explicit aspects that come together at the particular instances of encounter, which unfolds determined by the immediate responses to action from the participants present. A response to practice that has been similarly highlighted in DA, to being 'highly contingent and locally invented or adapted' (Halse & Boffi, 2016, p. 100).

This was an approach that in my practice was possible due to an understanding that I learnt through practice of the everyday routines and of the systems of revaluing established at the shop. In addition to my continual disposition to approach every situation as a design opportunity, which was part of my formation as a designer and underpinned by a creative resourcefulness from my cultural background explained earlier in the preface. These situated, academic and cultural backgrounds allowed me to respond to the opportunities of revaluing at the shop in ways that were aligned to comply with the existing systems but also to extend these systems by drawing inspiration from what the everyday circumstances offered.

The main significance of identifying this as a method is to highlight how an attentiveness to the unfolding routines and an openness to emergent opportunities forms part of introducing changes in the processes of revaluing. The following examples show several ways in which revaluing occurred in unexpected ways, with the introduction of a box of pre-sorted 'treasures', cradles of 'lucky dips' and boxes of 'bargains' and with a rack of 'confusing clothes'. The unexpected nature of these situations and their uniqueness meant these forms of revaluing made sense only after time when I went back to analyse the research materials and found that similar cases were recorded.

4.2.4.1. A box of pre-sorted 'treasures'

To facilitate the recognition of high-value items that were dispersed in-between categories, one intervention I implemented during the weekends when I was a manager working at the driveway receiving donations, was 'the treasure box' (fig. 109). It consisted of using a box at the receiving area to filter suspected better-quality donations and to separate them from the bulk of stuff and leave them for further valuation during the week by the weekday's shop manager (fig. 110). While this is very similar to the approach of adjusting forms of classification to create new product categories, the treasure box comprised all types of categories that only came together at early stages of sorting and pricing before they later joined their own category in the shop displays. Therefore, it was not established as a product category, but only as a system of pre-sorting, and it was not systemised by all the staff but at that time it was only done by me during the weekends. Thus, my embedded roles as staff and researcher enabled me to temporarily intervene in the systems of classification by adding a specialised filter at the moment of sorting, aimed at identifying high-value items.

In revaluing on the move, I built upon previous experiences and tacit knowledge gained at the op-shop, to conduct detailed assessments of donations and to recognise signs of high-value in things. As other volunteers had explained to me, these signs are generally found in materials, brand names, marks of production, cultural recognition and the age of things. This intervention was useful to understand that, in my own practice, revaluing involved being constantly on the lookout for signs of potential value, as well as translating these signs into high prices, self-explanatory labels and secure display.

Figure 109 (left) - A 'treasure box' of donations that arrived during the weekend, left on the floor of the manager's office who, after initial examination, stored them provisionally on the 'shelf of treasures' to await specialised valuations.

Figure 110 (right) – 'Shelf of treasures' in the storage room, for things awaiting specialised valuation.

4.2.4.2. Cradles of 'Lucky dips' and boxes of 'bargains'

The appropriation of second-hand baby cradles and the improvised use of the boxes that remain from donated items enabled the containment of products for rapid transition through the shop to be offered at low prices. This form of displaying products is a form of designing for revaluing that facilitates tasks of displaying by bulk, minimising the process of handling, as the volunteer time was scarce and working with limited storage spaces in order to re-direct attention to better quality items, such as those collected in the 'treasure boxes'. Furthermore, bulk displays have the effect of triggering a 'bargain hunting' mood in customers that motivates them to uncover the hidden values that are significant to them in exchange for standardised low prices. The ways in which these bulk displays are different from the display of other product categories, is in that the boxes and cradles are used for short periods of time and, usually, to sell donations as they come without the need of detailed sorting or pricing. As a result, once these items are sold they leave no trace in the shop display or in the systems of classification. These examples, demonstrate a disposition from the staff to engage with things as participants as these are donated, by appropriating them for daily interventions and by prototyping unique and ephemeral displays.

Figure 111 (top) - Baby cribs have strict safety restrictions, which often prevent them from being re-sold (the label indicates 'white cot not for sale'). These were commonly appropriated by staff for shop display of 'lucky dips' of low price items. In this case knitted clothes hangers were sold for $1.

Figure 112 (left) - This form of revaluing makes convenient and improvised use of the boxes that are always available, to gather things whose circulation is intentionally accelerated with low prices. The boxes provide a form of display and presentation that enhances the 'bargain' character attributed to things to accelerate their movement out of the op-shop.

4.2.4.3. The rack of confusing clothes

A key insight from the clothes workshop presented earlier (in section 4.2.1.2), was that a common difficulty for staff when revaluing clothes was to recognise differences in high and low-quality materials, between natural and synthetic fibres. After the clothing workshop had finished at midday, I had informal conversations about this issue with Gerry and John at the driveway in the afternoon as we were receiving and pre-sorting donations. These conversations initiated a prototyping intervention that involved gathering donations available to mediate our discussions and to demonstrate our themes of inquiry. I shared with them the insights from the clothing workshop and asked them about their experience in recognising signs of value in clothing textiles; they found it confusing also. To continue our conversations with tangible examples of confusing clothes, I gathered samples from the shop and hung them on a rack; in their role of things as participants, these allowed us to discuss ways of identifying specific materials.

In this intervention, the workshop insights and the appropriation of clothes were two triggers to extend our conversations, which led us to unplanned instances of collaborative learning. In this approach to designing and researching on the move, it was key to be immersed in the situation as a shop practitioner but also with an awareness as a design researcher to respond on the spot by harnessing the opportunities. Which emerged from daily interactions with spontaneity but also with clear intentionality and by using everyday materials and situations for triggering dialogues which could initiate a further exploration of ideas and that led us to processes of open-ended prototyping.

Figure 113 - Rack of 'samples of confusing items'

The confusion, in this case, referred to recognising natural materials, such as leather, silk, and wool, from synthetic ones. We shared ways of finding signs of value by looking at the brand labels and laundry instructions of the clothes, as well as noticing the differences felt through touching and smelling. This unplanned activity lasted half an hour. I asked Gerry and John about their thoughts about the activity, aiming to understand its role as a method on the move, and they responded:

Melisa: So, for my research, can I ask you if this exercise is useful and why?

Gerry: Oh, definitely

John: Yes, it's educational. I didn't think it was important in the driveway, but I can see now how a lot of things would be ok, but it just means you [referring to himself] are now more educated and better at doing it.

Melisa: I think at the driveway is the first moment where we can revalue or devalue.

Gerry: Correct, you can lose money out there very quickly.

John: That's a good way of putting it Gerry, a nice succinct phrase.

Thus, this intervention illustrated the way in which, in an improvised manner, the workshop insights extended into a conversation and activity on the move at the corridor. In this subsequent move towards inquiring about the challenges and possibilities of revaluing, we made use of donations and op-shop tools and appropriated them on the spot as probes and as improvised toolkits to mediate our conversations (fig. 113). The rack of 'samples of confusing items' was used only that afternoon and after the conversation ended, the garments were taken back to the shop for their sale. However, the use of donations to trigger discussion and learning was a common practice and method for investigating and practicing designing for revaluing at the op-shop. The reason why this intervention on the move differs from the method of facilitating workshops is that this corridor conversation was an extension of the workshop but it did not require previous planning. Instead, it was possible due to my disposition as a design researcher and shop practitioner to find moments for improvised interventions in our daily activities and, due to the volunteers' disposition to get on board with these research inquiries, to embrace them as opportunities to assess and reflect about our practices of revaluing.

4.2.4.4. Changing prices

Due to the variety of donations, it is very common for the value of certain things to pass unnoticed and for these to be priced cheaply when these could instead be treasures. While this represents a bargain that meets the customers' expectations and motivates them to come back to the shop, it also represents a lost opportunity to profit for the charity. Usually, the priority tends to be on circulating things quickly to deal with the great amounts at a steady rhythm. However, when treasures are found with low prices, it is a common silent practice of revaluing 'on the move' for other staff to change and increase the prices. These silent actions respond to personal decisions and express individual politics of valuing. One of the volunteers I worked with explained this practice in the following way:

'Sometimes I come in and whoever has done them before me, I think they are too expensive so sometimes I've changed them a little bit and drop them a bit because you know how some people are. I mean, obviously I make mistakes too but that's the luck of the game in an op-shop I think. Some people get a bargain and some people don't, I mean some people get the right price'.

Figure 114 (ltop) - This example shows the iconic lemon squeezer 'Juicy Salif' from designer Philip Stark, priced at $3 in a trolley with things ready to be moved into the shop for their display and sale. As I was picking up the job of displaying bric-a-brac I spotted it and removed its homogenised $3 price ticket and changed it instead for a 'unique' label (which are used for treasures) explaining the 'design value'. The juicer continued its way into the shop at $80 dollars.

Figure 115 (left) - and was sold that day to a connoisseur.

What these examples of revaluing on the move reveal are twofold. One, that designing for revaluing is an embedded practice that improvises and appropriates the materials, systems, and situations available to adapt to the unfolding daily circumstances and to intervene with forms of revaluing that fit within the op-shop routines and regulations. Two, that the practice-based approach of researching ED4R occurs in movement and from the emergent and contingent collaboration between people, things, and processes.

4.3. Chapter summary: methods for studying & practicing ED4R at the op-shop

This chapter presented a series of methods that allowed me to transform my ID background with PD and DA methods. This combination enabled a series of ethnographic and participatory interventions where I collaborated with staff to explore and test new ways of revaluing. My immersed ethnographic participation in the op-shop allowed me to have an active role and to intervene the systems of revaluation by assessing the established procedures. By working with staff and things as participants, we engaged in a form of open-ended prototyping that we employed as a reflective and practical tool to make sense of the ways in which we could contest values to direct donations towards possible futures. I used this prototyping process to explore the discursive and material potential that some things had as they circulated through the op-shop. To illustrate the blended practice that I developed at the op-shop while conducting this design research, the latter part of the chapter demonstrated the ways in which the theoretical concepts, not only inspired my thinking but became embedded in my practices of designing for revaluing. Particularly by undertaking workshops, by creating new product categories and through improvised interventions that allowed us to adapt to the contingencies of the everyday. Furthermore, this chapter exposed the development of my design research practice which is informed by my background in ID and that continues to develop as I learn from practicing PD and DA.

CHAPTER 5. CONCLUSIONS

In this thesis, I have developed the framework of Everyday Designing for Revaluing as a mode of research and practice-oriented at exploring the possibilities of collaborative and contingent approaches to sustainability. My proposal for ED4R was developed through my embedded design practice at the op-shop as a staff member and as a researcher and in dialogue with scholarship and practice in everyday design (ED), participatory design (PD) and design anthropology (DA). ED4R proposes a way of researching and designing that is participatory, ethnographic and improvisatory. It can be oriented to interrogating and modifying product design and value creation in the second-hand context to appropriate and extend the material lifecycle and cultural significance of used things. In this thesis, I have argued that the everyday routines of op-shops have the potential for harnessing opportunities for designing-after-use and designing-before-reuse. In doing so, I have presented ED4R theoretically in chapter 2, through a detailed account of each stage of the process of revaluing at the op-shop in chapter 3, and methodologically through a series of design interventions in chapter 4.

The practice-based and theoretical knowledge produced with this design research is summarised in this conclusion through seven interrelated and determining principles for ED4R: routines, contingency, improvisation and appropriation, intervention, participation and politics.

Routines

The identification of the routines and the activities that compose these routines was fundamental in the practice and definition of ED4R. I provided general descriptions in chapter 2 where I presented the practices of sorting, pricing and displaying. In chapter 3, I zoomed into these practices to create a detailed account and analysis of the sequences of decisions and actions undertaken by op-shop practitioners to generate value.
These ranged from, on the one hand, inspecting donations, classifying them by categories and orienting them towards paths of movements for storage and assessment to, on the other hand, turning them into products for re-commercialisation and reuse by cleaning, pricing and labelling them. Such product preparation involved handling items, moving them in trolleys through the shop and accommodating them in shop displays. The latter generated situations in which value could be discussed with customers, where stories could be shared and where product prices could be negotiated.

These routines are important for several reasons. It offered me the space to witness and learn about the granular acts that composed the individual and collective practices of revaluing. It also allowed me to cultivate an awareness to recognise some of the repetitive courses of action, including complying with procedures expected by the organisation and responding through improvisation to unexpected gaps in the guidelines, initiating shifts in procedures to find ways of adapting to the daily contingencies. This then enabled me to understand the everyday politics that determined the ways in which the op-shop staff practiced and collaborated with each other, as well as with donors and customers.

For me, understanding these routines by being embedded, both as a member of staff in the shop and as a design researcher, enabled me to learn about the existing systems of revaluing that were already emerging in this second-hand context and opened the possibility for the practice of ED4R to emerge and consolidate. In theorising as part of a continual dialogue with my practice of ED4R in the everyday routines of the op-shop, I was able to engage a design and anthropological perspective through which I made sense of the values and of the potentials that mundane and often unseen practices of care, such as cleaning, reusing and repairing at these sites of second-hand valuation for addressing sustainability concerns. I have demonstrated how these practices of care can be nurtured by exploring the opportunities to intervene and the possibilities to shift routines and how this can be developed through creating alternative responses to the contingencies that characterise the everyday unfolding of activities.

Contingency

ED4R emerges from and with the contingency of everyday routines. At the op-shop, contingencies are generated and fostered by varied factors that range from the unknown number and type of donations that donors will bring, to the different staff teams that work each day of the week. In addition to this, there is the unpredictability of encounters amongst staff, visitors, and potential customers and to the shifts in routines due to sudden changes in weather. This combination of factors guarantees different interactions and unexpected turns of events. This daily variance in the routines of the op-shop means that the processes of ED4R occur differently in every situation. To consolidate this understanding of ED4R as a contingent practice I drew from design anthropology's focus on the notions of emergence and possibility (Smith et al., 2016), which I presented in chapter 1 as theoretical concepts and demonstrated in chapter 3 by providing a granular account of shop routines.

To develop practice-based research in these contingent circumstances meant that the outcomes of revaluing were ephemeral and open to continual change. This had implications for my disposition as a staff member and as a design researcher and meant that I needed to practice in flexible and adaptable ways. This was an approach that volunteers were also accustomed to, as expressed by Trish,

> 'you never know from one day to the next so really it's hard to have a plan. Some days [the manager] might say 'put anything that is a certain colour or whatever apart', but apart from that, not much plan'

As I joined this contingent approach to revaluing at the op-shop, I was able to embrace that openness to variance as an underpinning principle of my practice-based research, which was conceptualised as an ongoing state of inquiry. This led to the emergence of ED4R as a situated practice, and as a conceptual understanding of a form of designing that is open to engaging with emergent possibilities to generate changes which were, in this case, intended towards revaluing. In its openness, ED4R is a long-term practice that continuously creates temporary bridges that draw from participants backgrounds and experiences to make sense of the latent value of existing things in order to orient them forward into potential futures of revaluation.

Improvisation and Appropriation

To work within the contingent circumstances, defined above, required a preparedness and ability for quick responses which was often approached through acts of improvisation. The implications of improvised responses meant that the existing guidelines for revaluing were always put to the test through situated and immediate action. Practitioners (op-shop staff) improvised in individual ways and in correspondence with the unique characteristics of each situation. They did this by creating informed responses, drawing from the existing guidelines and completing these with their individual knowledge, acquired skills, and affective moods. These individual interpretations and appropriations of the guidelines were enhanced by volunteers' tacit, sensorial, emotional and imaginative ways of knowing; which had the potential to uncover unforeseen signs of value. In doing so, and at times even without intending, volunteers extended the existing systems and created new forms of revaluing.

As developed in chapter 1, I build on the notion of appropriation that Wakkary and Maestri (2007, 2008) brought to the analysis of ED to understand how people make things meaningful to them in personal ways during stages of design-in-use. Furthermore, in my practice and analysis at the op-shop, I discovered the role of improvisation in enabling forms of daily appropriation. I drew from DA to make sense of improvisation as a practice that keeps life in continual formation (Ingold & Hallam, 2007). Which, from a PD perspective, could be understood as a design practice that extends design-after-design (Ehn, 2008). The combination of these conceptual underpinnings with my embedded practice at the op-shop allowed me to discover the role that acts of improvisation play in generating forms of appropriation. A pairing of everyday approaches to action that I argue determines the possibilities for designing-after-use and designing-before-reuse to unfold.

In chapter 3 and 4, I demonstrated how, in relation to the contingencies of the 'everyday', improvisation, and appropriation can be fostered as practice-based opportunities to introduce design interventions. The practice of improvisation and appropriation as forms of intervention was particularly illustrated through the ways in which, while in our routines we had intentions to work on determined tasks such as sorting, we were also prepared to assess, modify or extend the course of these tasks of sorting. This could happen either by creating new product categories or by shifting the course of actions 'on the move' as we used donations as probes. For example, this could involve discussing some of the challenges of revaluing when distinguishing silks from synthetics or could entail initiating interventions by, for example, bringing a green t-shirt into a conversation as a trigger to propose and to imagine the potential of making a St Patrick's Day display. An openness to approaching routines that cultivated a sort of imaginative and practical elasticity to be 'inventive with what we've got' as Barbara said when she was making new necklaces from existing necklace parts.

A disposition to improvisation and appropriation fostered an ongoing state of inquiry which involved facing everyday life not as a plan, but as it was happening. This entailed defining ways of responding to each situation on the go with the people and things available at that moment. In this practice, even small-scale and unique acts generated spaces that opened up possibilities to explore alternative futures for used things in ways that could lead to material and cultural explorations of potential forms of change for sustainability.

Intervention

Intervention in this design research was understood and undertaken not as an abrupt intrusion, but as a continual and long-term form of engaging in situated and intentional action. While interventions were mostly points of encounter that developed through dialogue and collaboration, sometimes interventions were recognised only after these had happened. Routines involved sharing work areas and tools, helping each other in decision making and working towards collective intentions of revaluation. However, routines were also undertaken individually as every volunteer worked in their own time and space and by imbuing things with their personal interpretation of value. Thus, in that variation, it was common to commence a work shift after others had worked on something to find workstations arranged differently, products priced in ways that did not reflect the criteria of other colleagues, and things displayed in ways that some considered to be a confusing intervention. An example of this is for instance when Gina found the green frog displayed with homewares of a different shade of green. Therefore, understanding everyday acts of revaluing as interventions, enabled me to recognise the effect that both the intentional and unintentional acts had in generating dialogue to reflect about existing systems and different ways of practicing within them.

By understanding actions through the lens of interventions, I became attuned to the way in which spoken and written words, individual and silent actions, and collaborative dialogues, were all generative and political stands. These stands generated spaces for further inquiry and opportunities to reflect on things that were often unspoken and that we took for granted in our routines (e.g. displaying things by shades, not only by colour). Thus, what at times appeared as a diversion from the accustomed course of routines, became an opportunity to witness different approaches to revaluing, either as a chance to explore and build from it, or as a stand that made explicit what was implicit. These shifts in routines were seen when for example improvised interventions which had emerged in response to contingent circumstances were then turned into 'in-house' standards for all staff to integrate into their routines. For example, with the appropriation of donated whiteboards to specify the type of donations that the shop had the capacity to receive and process.

To consolidate this understanding of intervention as an opportunity for inquiry, I drew from PD and DA and demonstrated in chapter 4 how I integrated this notion into my practice-based methods. Intervention from a participatory and ethnographic point of view, and as a stand for practice, lead me to initiate and engage with existing situations in order to harness opportunities for open-ended prototyping that involved discursive and material explorations for and towards revaluing. Thus, even if interventions were not introduced in abrupt ways but along the course of everyday tasks, these could involve changes in actions and routines, they immersed in. They also generated everyday politics in the shop.

Participation

The notion of participation invoked in this thesis and through my practice of ED4R in the op-shop was framed by drawing from participatory design (PD). By bringing the notion of participation to my design research, I developed an understanding that permeated my practice from three angles. First, with a disposition to engage in dialogue with op-shop staff to discuss research inquiries while practicing at the shop. Second, with an outlook oriented towards embracing emergent opportunities for collaboration. Third, by articulating in writing an accountable practice in which I assume and continually reflect upon the responsibility of my voice and actions. These three aspects were mutually constituted in correspondence with the people (staff, donors, shop visitors and customers) and things (donations, tools for revaluing products and research tools) with which I shared the everyday routines of the op-shop.

For me, it was important to participate in the shop routines to build an understanding that drew directly from immersed experience. Furthermore, to build this understanding, it was crucial for me that op-shop staff participated in the design research inquiries and practices. Their participation meant that I could learn from their experiences and with them at the same time. Their willingness to participate on both ends was nurtured by honest dialogues that enabled reflection. Mostly, participation in action meant sharing intentions to contribute to the shop's agendas and functioning, sharing work schedules and spending time together while at the shop and learning from each other's skills, background knowledge, and cultural views. However, beyond the shop and the research agendas, participation manifested in cultivating relations of mutual respect and support that allowed us to navigate together the daily challenges and to celebrate daily joys. These layers of academic, institutional and personal participation strengthened our collective approaches of reflecting on practices and created space to explore different ways of practicing in our routines.

In chapter 4, I demonstrated the ways in which participation was at the core of the design research methods I engaged. These methods ranged from creating spaces in our routines to workshop ideas around the criteria for valuing toys and clothes to presenting the role that things played as participants. This happened through triggering the imagination of volunteers to create new product categories or by influencing staffs' decisions 'on the move', in order to shift the paths of movement taken by things within the systems of revaluation. I used the mobile phone in this process by recording routines and in uncovering the potential of this method and research tool for generating instances of reflexivity amongst participants in our recorded encounters, who described and defined processes of ED4R as these were happening.

This work represents my understanding of participation as involving reflexion upon practicing together in planned and in emergent activities, in spoken and written, in tacit and silent ways. Through the notion of participation, I observed and shared the responsibilities for the shop's daily undertakings, the delivery of the social services and material and economic outcomes that were expected of staff. By using the notion of participation as an analytical and practical lens, I became aware of the possibilities and negotiations involved in working together towards generating value. This involved individual and collective contributions to everyday decision making, as well as experiencing and learning together from the joys and challenges of the routines practiced and created.

Politics

The everyday politics that I witnessed and practiced at the shop involved daily processes of negotiation between institutional guidelines and personal values. Institutionally, politics comprised product restrictions and regulations to ensure that donations and procedures of revaluing were safe for staff and for potential customers. On a personal basis, politics worked as drivers for people to participate in the routines of the shop. From altruistic agendas from some volunteers to the agreements of other volunteers to work at the shop as part of their commitments with welfare services, as well as the individual agendas of other volunteers to gain work experiences. In my case, this involved embedding myself in the shop routines to learn about existing forms of revaluing with experienced practitioners in the second-hand context and to explore possibilities for a design-oriented to generating mundane and collaborative approaches to sustainability. Furthermore, personal everyday politics also meant assessing the routines that, as staff, we were participating in. These instances of interrogation led to appropriating procedures and to extending institutional guidelines for these to respond to the specificities of the shop, to the everyday contingencies and in alignment to personal values. For me, this was an everyday politics that involved harnessing and generating opportunities to develop what I presented here as ED4R.

Furthermore, the politics of the institution and of volunteers are aligned with a social agenda to generate revenue for charitable purposes. By being recognised as a charity, the shop communicates certain values to the public that invite people to donate, visit, buy and socialise, as ways of contributing to a greater cause. This might be by donating used saleable things for their re-commercialization and reuse, by cultivating a site to meet and greet with neighbours, or by participating in exchanges that contribute to altruistic and circular economies. However, the quality of donations, the social interactions and the appropriateness of value stipulated for used things, is interpreted differently depending on individual politics and expectations from the shop. This variance sees cases in which some people see the charity as an easy way to get rid of their unwanted and unsaleable things, and others who expect to buy things for a bargain despite their assigned value. These frequent cases can be seen as daily interventions in themselves, which require ongoing negotiations to define the boundaries of revaluing with donors when these are unclear for certain products and to negotiate prices with customers. In doing so, not only politics but also value, are negotiated and mutually constituted.

As I argue in this thesis, this negotiated and mutual constitution of politics and value accounts for the shared responsibilities involved in running the shop. More broadly, the everyday politics practiced and created at the shop have the potential to create modes of revaluation that challenge existing design and consumption systems of planned obsolescence. For example, through everyday acts of cleaning old things, through taking objects out of the bin and attributing them 'treasure' status in secured cabinets for sale at the shop as high value items, and by selling old cassettes despite their technological dissonance with current music devices, the shop becomes a space to politicise the value of material culture and, by revaluing these old things, it creates a space where it is possible to resist their commercially imposed devaluation. As I demonstrated from the op-shop, these everyday politics are witnessed and can be practiced at everyday sites that are beyond design studios and beyond use. As it is often beyond these design sites and

new stages in the life of products that everyday politics intervene to extend the meanings, uses and value of existing things. Beyond its ambitions to lead to social change, a design for revaluing perspective has the potential to foster political acts (e.g. to donate, volunteer, reuse) in order to intervene in systems of consumerism by offering an alternative to brand new things. This entails undertaking activities that seek to extend the durability and cultural significance of existing things, and that can challenge existing design systems of planned obsolescence and minimise the rapid disposal of reusable and valuable things.

As a designer, my politics were focused on developing a collaborative practice that explored sustainability through mundane acts in ways that went beyond the usual domain of design practice. This was a design practice that moved from the design studios where design ideas and new products were generated and consolidated, to a space in which designed things arrive old, used and unwanted. This move in site and in the temporality of things, meant that I could engage directly with a form of designing that restarted the lifecycles for things, and as importantly, bring people not trained in formal design to participate in this process, and for me to learn from and with them. This approach to designing comprised a shift in terms of the materiality I was working with, and also a fundamental shift in my practice that moved away from a 'conventional' one in Industrial Design (ID).

This shift in my ID practice involved additional politics that emerged from the practice-based approach that I developed by drawing design research frameworks from PD and DA. The politics comprised in blending my ID background with PD and DA involved being accountable for my participation in the everyday routines of designing with other people. This accountability was manifest in an open dialogue about my intentions of exploring sustainability at this site, and in the ethics of working with other people in research. This ethical commitment ranged from the situated encounters at the shop to the stages of analysing and writing that this thesis reports on.

The recognition of the ethics embedded in the politics of practicing and researching meant that besides signing ethics consent forms four years ago at the start of the project, I was continually touching base about sensitive themes with op-shop colleagues who participated in the research. This happened during tea breaks, with phone calls and with series of emails, all in order to ensure that the managers felt that the charity was presented accurately and that the anonymity that some participants preferred was met. Furthermore, while ensuring the comfort of participants in the research practices, the definition of the research politics underlined my own reflexivity. This required me to become aware in the first place, of what I recognised as politics. From the direct conversations maintained in our routines, but also often, the ways in which I practiced my politics was through silences. Either because I was unclear about my own and other participants politics in regard to specific emergent situations, because I didn't know how to respond to the situations or because after instances of disagreement pauses of silences were helpful to restore everyday harmony. Either way, in spoken or unspoken ways the articulation of these politics involved dedicating time to keep my intentions and actions in check and to make sure I articulated myself and the research in ways that I felt could ensure honesty with and for all the involved.

Transitioning

This transition in practice had personal implications. The practice-based design research project was an opportunity for, as mentioned in the introduction, a collaborative becoming in which through the experiences and learning gained, I continued a process of designing myself in correspondence with the people and things I shared this time with. I argue the approach to designing in participatory, ethnographic and interventionist ways presented in this thesis, has implications for the development of other forms of practicing Industrial Design from the perspective of everyday life, through open-ended collaboration and by an ongoing prototyping by improvising and appropriating with existing things that are oriented towards exploring sustainability.

Furthermore, by bringing ED, PD, and DA together in this thesis I have emphasised and provided tangible accounts of the implications and potential of intersecting these three design research fields. The combination of these three fields enriched my understanding of the design research practices undertaken at the op-shop in various ways. For instance, with ED's attentiveness to find value in the creativity of appropriating everyday objects, and in formulating a sustainability potential in practices of design-in-use. In addition, PD's political tradition to be embedded in participatory processes of designing to co-create opportunities for change. Complemented with DA's openness to critically and experimentally engage with emergent possibilities in a continual state of inquiry. By learning from the potential of drawing from these three fields I look forward to continuing to explore the design practice and theory that can emerge from practicing at their intersections.

Finally, I propose ED4R as a design research practice that, in its open-ended nature, is incomplete and in ongoing formation, which can be explored in other contexts to invent possibilities for generating and extending value. I see ED4R being oriented to finding in unwanted things, environments, and situations opportunities to foster a sense of regeneration and wellbeing.

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APPENDIX: RMIT ETHICS NOTICE OF APPROVAL

RMIT UNIVERSITY   Design and Social Context College Human Ethics Advisory Network (CHEAN)
Sub-committee of the RMIT Human Research Ethics Committee (HREC)

Notice of Approval

Date:	25 July 2014
Project number:	CHEAN B 0000018747-06/14
Project title:	**Design Practices of Social Innovation and Sustainability**
Risk classification:	**Low Risk**
Investigator:	**Dr Yoko Akama and Melisa Duque Hurtado**
Approved:	**From: 25 July 2014 To: 31 March 2018**

I am pleased to advise that your application has been granted ethics approval by the Design and Social Context College Human Ethics Advisory Network as a sub-committee of the RMIT Human Research Ethics Committee (HREC).

Terms of approval:
1. **Responsibilities of investigator**
   It is the responsibility of the above investigator/s to ensure that all other investigators and staff on a project are aware of the terms of approval and to ensure that the project is conducted as approved by the CHEAN. Approval is only valid whilst the investigator/s holds a position at RMIT University.
2. **Amendments**
   Approval must be sought from the CHEAN to amend any aspect of a project including approved documents. To apply for an amendment please use the 'Request for Amendment Form' that is available on the RMIT website. Amendments must not be implemented without first gaining approval from CHEAN.
3. **Adverse events**
   You should notify HREC immediately of any serious or unexpected adverse effects on participants or unforeseen events affecting the ethical acceptability of the project.
4. **Participant Information and Consent Form (PICF)**
   The PICF and any other material used to recruit and inform participants of the project must include the RMIT university logo. The PICF must contain a complaints clause including the project number.
5. **Annual reports**
   Continued approval of this project is dependent on the submission of an annual report. This form can be located online on the human research ethics web page on the RMIT website.
6. **Final report**
   A final report must be provided at the conclusion of the project. CHEAN must be notified if the project is discontinued before the expected date of completion.
7. **Monitoring**
   Projects may be subject to an audit or any other form of monitoring by HREC at any time.
8. **Retention and storage of data**
   The investigator is responsible for the storage and retention of original data pertaining to a project for a minimum period of five years.

In any future correspondence please quote the project number and project title.

On behalf of the DSC College Human Ethics Advisory Network I wish you well in your research.

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