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The sum is the realisation of the parts: interdisciplinary perspectives on care

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Abstract: Designing through the paradigm of care and for care, is a complex and perhaps precarious activity. It is a domain of design research and practice that is best undertaken through interdisciplinary collaboration. In this paper we reflect on the dimensions of an interdisciplinary design evaluation of a psychiatric care facility from four disciplinary perspectives. Through this discussion we propose that it is the disciplinary and methodological diversity of the research team in conjunction with the research participants, that enables us to develop a comprehensive view of the care facility, and the nature of designing for care more broadly. In short the robustness of our discoveries is the result of the sum of our parts.

Keywords: design anthropology; design ethnography; care; interdisciplinary collaboration

1. Introduction

The provision of care in a psychiatric facility is inevitably complex. It encompasses the breadth of material, social and service dimensions that need to be considered for patients and carers as well as for family and other community members. Understanding how to design the infrastructure and environmental needs of the various stakeholders in such facilities is best achieved through the lens of different expertise frameworks including design.

This has resulted in a shift in design research and practice from the material production of 'things' for consumption, to a greater awareness and desire to design a world that sustains, respects and benefits all. Subsequently, a range of design methods and approaches have evolved. Most notably, the shift to human-centered design, has had many positive benefits in enabling this transition, and has expanded the basis for many contexts of design research, not least in the healthcare sector. Researchers are also identifying opportunities for human-centred design to be used in collaboration with other fields of practice, in order to both realise the ambitions of care, and note its limitations (Hammington 2018)

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In exploring design as a practice of care, Vaughan (2018) asks that we challenge some of our assumptions or limiting beliefs about both fields - design and care. Bernard Weicht (2015) argues that we need to consider the intersubjectivity of care - that care is the manifestation of relationships between people, space and things. These relationships may include the intersections between the material world, technologies, the body, our emotions, experiences and sensorial nature of being in place. Typically for institutional contexts of care, these are drawn from a range of people and sources and expertise sets. In order to accommodate a deep appreciation of these relationships we propose an interdisciplinary approach which brings to the fore the expertise associated with different disciplines, but does not seek to submit any approach to the other. Such an approach involves an interweaving of ideas and respectful acknowledgement of disciplinary expertise and how this might contribute to shared goals. In this paper we map out how this was articulated as a mode of interdisciplinary design ethnography. Our approach drew together the theory and practice of design anthropology, human geography and design research in order to attend to the sensorial, atmospheric and creative dimensions of the experience of design, in relation to the processes of design and architectural practice. Thus enabling us to draw new insights into both the ways that our own forms of expertise as researchers intersected, and the ways the experiences and intentions of the different stakeholders in hospital design (patients, visitors, staff, designers) intersected in both the intentional and unanticipated effects of hospital buildings and service design.

Across the field of design research there is a growing community of researchers and practitioners interrogating and proposing new ways for practices of care to be designed in meaningful and timely manners. Peter Jones's 2013 publication, *Design for Care*, drew particular attention to the relationship between insights from human centred design could inform broader approaches to the design of care particularly in health care contexts. In 2016 Charlotte Bates, Rob Imran, and Kim Kullman published a collection of essays *Design and Care*, that drew a particular focus on the role of spatial design in realising environments of care. In 2017 Paul Rogers at Lancaster University asked the question *Does Design Care?* and brought together a global community in his publication of the Lancaster Care Charter (Rogers et al 2017). Like other leading publications and initiatives (networks, conference themes, research labs) Rogers et al, emphasise the need for multidisciplinary or interdisciplinary expertise, if we are to realise ambitions in the design of care.

In our project and in this publication, we have sought to move beyond statements of the need for disciplinary diversity, and to evidence what this means in practice for researchers engaged in research and scholarship. What motivates people to work collaboratively on such projects; how does participation inform and transform their own practices; and what value does this bring to the project and the subsequent insights. As such this paper is structured around four distinct and interconnected anecdotal narratives; it honours the voices of the authors and their respective positions. In doing so, it is consistent with Max van Manen's (1990) proposition, that research on lived experience is best articulated through anecdotal narrative. For such an approach leads us to reflect, it involves us personally, and affords

transformation (p. 121). The tone of the paper is consistent with reflexive writing in design and ethnography, as it endeavours to reveal the perspective of the researchers within the context of a real-world project.

2. Research Context

Between 2016 to 2018 the authors undertook an interdisciplinary design ethnographic study of the design of, and staff and patient transition to, a new psychiatric facility within a greater hospital development project.

The site of the research is the Bendigo Hospital located in regional Victoria, Australia. Through this new development what were originally three discrete psychiatric units were consolidated into one co-located department within the main hospital facilities. It was a complex project for the hospital to realise and involved many stakeholders both internal and external to the hospital. Internally these included nursing staff, doctors, service and administrative staff, patients and other allied care services. Teams of architects, planners, landscape architects and numerous service providers were charged with realising the project. The guiding document for all the stakeholders was the hospital's Model of Care - an extensive document that outlined what the principles of care were for the new facility and how these would be realised. Safety and wellbeing of patients and staff is the central theme throughout it. This model of care was an evolution of the practices undertaken in the previous facilities. It was the guide for both the project development, and the care practices of the hospital staff.

As noted by Wood (2013) and experienced by this research team the design and development of a new psychiatric facility is an extraordinarily complex undertaking. There are layers of material, physical and psychological care that are central to the project achieving its outcomes. These are realised through the service models, spatial and material features of the facilities that people live and work in on a day to day basis.

The project team was commissioned by the hospital developers to undertake a design evaluation of the psychiatric facilities. The form of the evaluation was a design anthropological study that engaged closely with the various stakeholders from architects to nursing staff, cleaners to allied health professionals, and patients, family and other care providers. The complexity of the project demanded for a breadth of expertise in the research team. This expertise would frame the research focus and the data analysis. It was also planned that we would, through this research, expand our understanding of our respective fields through our collaboration, and as such would then disseminate the resultant insights back into our own fields.

In this paper we explore how the expertise of the four researchers involved in the project has informed the design of the study, our meaning making in relation to research discoveries, and its implications for and contributions to our respective disciplinary domains.

3. Methodology

Design Anthropology (Smith & Otto 2016) involves bringing together the theory and practice of design and anthropology. This interdisciplinary combination can take a variety of forms (Gunn & Donovan 2012). Our own rendering of it is in the form of a blended practice (Pink et al 2017, Akama et al 2018) whereby neither discipline takes precedence, and research and practice involve a process of mutual learning between individual researchers and by implication for disciplinary reflection. Blended practice, as developed here, requires conceptual containers through which researchers can confer and mutually engage. As discussed above the concept of care recurred throughout this work, through the notion of design as care, the model of care that informed the hospital design, and our research focus on how care was manifested in everyday practice. Thus making the question of care an interdisciplinary concern as well as a question our research wished to unravel, since the study involved a complex intersection of the material, experiential and service experiences of two distinct locations focussed on the provision of care services and how architecture and design inform people's experiences of care.

To understand the articulations of care that were involved in this we needed to combine the disciplinary approaches which could deliver and interweave the practical and theoretical expertise in skilled fieldwork and ethnographic analysis, an awareness of design and human-centred design approaches and the ways that space and place have a profound impact on lived experience of the world. Therefore, the research team was composed of four domain experts across human-centred design, everyday design, design anthropology and experience of built environments, and human geographies of spatiality.

The structure of the study interwove this expertise through two stages of research and analysis across a three-year period. In stage one we undertook two tasks: a series of interviews undertaken with the architects and landscape architects who designed the facility; and an ethnographic study of the participant experience of the original hospital facilities at the three locations, as well as observational data collection of the spaces, facilities and material and sensorial aspects of the locations. Interviews and observations were undertaken with nursing staff, patients, family members, allied carers, service workers and hospital administrators. Video and photography were used where appropriate and only ever with informed consent from participants. At the end of year one the new hospital was complete, and the patients and hospital staff moved into the new facilities. During this time no fieldwork was undertaken to allow time for people's experiences to 'settle' and become normalised in the daily care practices of the staff, and associated experiences of the patients. In year three fieldwork was undertaken focussing on people's experiences of the new facilities. Again, this field work included observational data of the material experiences and qualities of the spaces.

Bringing these materials together required an interdisciplinary collaboration. A deep understanding of design processes, context and the constraints on these was needed to analyse and interpret our interviews with architects, designers and other stakeholders,

and to set their experiences in dialogue with our ethnographic findings. Our ethnographic findings required us not only to interpret the experiences of staff and patients anthropologically, but to set these in dialogue with an understanding of buildings, interior and service design. Therefore, the task of interpretation could never be one of a single discipline scholar but always part of a blended practice. Our analytical processes were therefore always interdisciplinary, involving the collaboration of at least two members of our team, and our final report writing involved the work of all four researchers, bringing together theoretical expertise in design and anthropology, with depth experience of immersion in the field sites. Thus, for instance meaning that the theoretical, experiential and design practice elements on care which were represented by both the different positioning of researchers in the project structure, and their different expertise could be compared.

3.1 Collaboration does not mean assimilation

There are various ways that we can articulate collaboration between and across disciplines and the value of this. Moran (2002) argues that disciplines are by their scientific focus narrow, and we could argue limited. Working with other disciplines affords us the opportunity to expand our worldview and we may do this with a range of intents and expected outcomes. This typically is framed as being either multidisciplinary (a range of disciplines together), cross disciplinary (working across boundaries), interdisciplinary (finding points of intersection) and transdisciplinary (when new knowledge emerges as a blending of disciplinary expertise). This design ethnography is best articulated as an interdisciplinary or transdisciplinary mode of investigation. This is consistent with Winschiers-Theophilus et al (2019) arguments for different disciplinary engagements in design research. The research design was formulated using the expertise and best practices of the various disciplinary domains. The official project outcome was a design ethnography, a field that is an interdisciplinary blended practice that is particularly aligned to developments in human-centred design, that would have value and contribute to future hospital developments. However, the knowledge and practices of the researchers undertaking the study are also transformed through the process of doing the research. This is an often under recognised value for undertaking research, and for working in particular research teams. In this project the research team had an explicit interest in learning from each other as well as interrogating the subject matter.

Typically publications from research collaborations are presented through a unified voice (we – the research team), where often it is only the research publication disciplinary context that allows for difference or disciplinary focus. Through the following reflections by the four members of the research team, each of whom, in their own voice, articulate their particular focus and ambition in the project- we aim to identify how difference and synergy can co-exist in a complex collaboration. These reflections include what they brought to the project in terms of expertise and specific domains of concern and the methodological contributions that they could make to the research design and the subsequent insights on completion.

3.2 Design Anthropology - Sarah Pink

My initial interest in this project was two-fold. My methodological interest was in developing a new design ethnographic approach to building occupancy that goes beyond standard POEs (post-occupancy evaluations) to attend to the sensory, emotional and often unspoken feelings through which people experience and learn to live and work in new buildings. This I believe is a necessary move if we are to understand care and wellbeing as being emergent from the everyday material, social and sensory circumstances in which people are situated, rather than being the effects of design. Drawing on existing design anthropological practice in contexts of health care (Pink et al 2014), architectural design (Pink et al 2018), the construction industry (Pink et al 2013) and homes (Pink et al 2017) I was also particularly interested in what we could learn from this project that would enable us to better understand the relationship between the design and experience of the built environment, interiors and services that would subsequently inform a position on how architectural design for wellbeing might be developed in dialogue with social research.

The research sought to understand the experiences of staff and patient participants through a sensory ethnography (Pink 2015) methodology. Sensory ethnography pays particular attention not only to what people say and what they can articulate verbally, but to what people show us, perform for us and collaborate to bring to the surface in situ in the places where these activities are normally played out and experienced sensorially through the difficult to articulate experiences of light, sound and temperature. Often these experiences are felt rather than being observable or necessarily easy for participants to verbalise in interviews, yet they are fundamental to how we 'feel' in place and therefore vital to understanding how design and architecture are experienced. Where appropriate sensory ethnography uses video and photographic methods in collaboration with research participants to demonstrate, show and record enactments of and artefacts from everyday life environments and actions. This was adapted in practice during the fieldwork in relation to the environment and particularly in connection with the participant groups of hospital staff and psychiatric patients.

This approach was also tailored to attend to design anthropological questions focused on how participants use, improvise in and make themselves feel 'right' or comfortable as they learn to live and work in the new hospital environment. Therefore, going beyond the usual questions of how people experienced the new building the research was designed to ask how they improvised to reshape such experiences. Thus I was interested for instance in how participants developed techniques to change the temperatures, benefit from sunlight or experience a sense of quiet or peacefulness in ways that had not been accounted for by the architectural design of the hospital. It is by learning from both how participants benefit from and use intended design features as well as by understanding how they improvise to achieve what they need in spite of existing design that we can best provide new insights that will enable us to propose how consultation processes can be refigured as future-user research which can offer insights for design that are based in the sensory, unspoken elements of user experience that so often underpin and are vital for wellbeing. It may be noted that the team

did include two design researchers, similar in their design premise but different in their focus and tenure as design researchers.

3.3 Human Geography - Shanti Sumartojo

I was responsible for conducting the fieldwork in the first part of the study, working from a set of research concerns that asked how people experienced the hospital inpatient units in the facilities that predated the construction of the new hospital. My task was one of understanding how the gardens, corridors, shared spaces, bedrooms, nurse stations and treatment rooms felt to the people that work, dwelt and moved through them.

This meant trying to understand how different elements configured together to comprise affective and sensory experiences, connecting tangible and describable things to feelings that were sometimes difficult to express or communicate in words. My research interest was therefore conceptual in its attention to place and the distinctive atmospheres that were part of what they meant to people. It was also methodological as I sought to translate the framework provided by the research questions into ways of interacting with research participants that best allowed them to express their experiences of the different wards.

In practice this meant feeling my way into the site by attuning to it in various ways with my own body and senses, making notes about the distinctive sounds, smells or the quality of the light, and taking note of the furnishings, equipment, routines, and many other elements. These embodied experiences of my own gave me a way to engage with others in the same environment, sharing my impressions as a route to learning about theirs. I spoke with and moved around the wards with patients, visitors and staff members, asking them to show me their routines or places that were particularly significant to them. I got to know the rhythms of the ward, and began to recognise how care was expressed and responded to in various interactions and by way of materials, objects or substances. Many of these encounters were video or audio recorded, creating materials that the research team could work with later.

Over ten weeks in the wards, we amassed materials that allowed us to begin to generalise some of the terms in which people understood care and wellbeing in this particular environment. While these findings were inextricable from the specific spatial contexts in which the research took place, they pointed towards abstract concepts such as homeliness, safety, movement and connectedness as important and common aspirations for what an ideal environment would enable. Here, the notion of care emerged as entangled with much more complex and expansive ways of relating to each other and to surrounding environments, including those in the past and in the future. These categories then became central to what we would interrogate in the next phase of the study, in the new hospital building.

3.4 Design Researcher - Melisa Duque

As a design researcher, I joined the project in its third year after staff and patients had moved from the previous facilities. My arrival at the Psychiatric Units was informed by the

ethnographic materials from the first-year experiences, which provided me with a helpful degree of familiarity. For instance, the recorded conversations that my colleagues had with the hospital staff, opened a path that I was able to pick up with participants as they remembered the purpose of the research and the open-ended style of our interviews.

I developed a design research practice specific to the site in which I worked. As I became immersed into the hospital context, I could relate to staff accounts about their experiences of working there. At times, I navigated the hospital imagining how it would feel if I were a family member visiting a loved one. Moreover, I learned from the staff, who in their empathetic responses often invited me to think of how the hospital design and services would feel if I were the patient. These personal, situated and imagined experiences were further informed by my industrial design background. This sometimes oriented our conversations to explore how the materiality, spatiality and sensoriality of the design elements of the units played key roles for psychiatric care. In addition to the memories of these encounters, the research methods used to record the fieldwork included a variety of tools (see Figure 1) to gather written notes, photos, audios and videos.

Figure 1 Kangaroo bag with recording tools, with required Duress alarm and swipe card access.

Besides researching the roles that design played in this context of care, I found a community of practitioners who worked creatively to generate environments of care and adapt their practices to the new facilities. This made spaces meaningful to themselves and to the people they cared for. Some of these practices of care included what nurses called TLC (tender loving care), ranging from always having fresh flowers, to giving patients a walk around the Unit at their arrival, as orientation to the new spaces, services and technologies. They also performed sensorial and communication interventions, using some of the surfaces to communicate with each other in allocated notice boards, and by decorating windows. Both the design of the physical environment and the everyday designing practices (Duque, 2018) found at this Psychiatric Hospital, informed my understanding of the broad scope of material and relational designs for/with care.

3.5 Design Researcher - Laurene Vaughan

I came to the project with an interest to know more about the intersections between the intentional design of physical spaces and services of care and people's individual experiences of 'care' within these. Undertaking research in a psychiatric unit was also particularly interesting, such care contexts are not typically available to designers and often not experienced outside of the popular imaginary. It could be said that a core interest for me within the research was to identify and critique what might be called 'popular' approaches to design research and practice and conventional ways to articulate value and care through design. In current practice and discourse this is presented as being the value of human-centred design (HCD) - it places the focus on the people who are the receivers or co-designers of a design outcome and by default this means that has value and integrity. I have for some time been concerned by the species preferential nature of HCD and its limited time frame of value (a lifetime or the short term quite often). Like design thinking, HCD is often presented as being neat - the messiness of lived realities and the complexity of design projects and problems often seem to be overridden or ignored in the accounts and evaluations. A new architectural build, with the redesign of services and models of care in the sensitive and sometimes emotionally strained environment of a psychiatric unit is a rich context to explore and consider the real challenges of design, even when done with the best of intentions. As we made our way through the study and the fieldwork documentation, design compromise, something that most designers wish to ignore seems to have become a valid and necessary way to understand the complex interplay between the various stakeholders (material and human) in the design of a facility for care.

Being a design researcher on this interdisciplinary team allowed me to bring to the study an awareness and empathy for the intentions of the architects and designers, as well as a peer informed critical eye for decisions and outcomes that were made in the course of the project. As a spatial designer I felt enabled to make material observations of space and the experience of it in a field informed way. I was able to contribute a methodological understanding to the design of the project, in conjunction with research context insider knowledge regarding the nature of the participant's practices and the material outcomes of these.

4. Findings

There have been many findings from this research collaboration in relation to the research focus and questions. These have been reported in a range of publications across representative discipline outlets. This has been possible because of the diversity of the team, our expertise, our openness to learning with and from each other, whilst maintaining integrity to the project intention and the participant contributions. An example of this are the research findings regarding the way staff experience and use space as being integral to their ability to care. This use includes how they find rest and reprieve from daily work activities in the form of breaks. Our analysis of the participant data, and subsequent inclusion of this in the final research report, was published in a co-authored journal article *Designing*

for Staff Breaks (Pink et. al 2020). The full report can be accessed at (https://www.monash.edu/__data/assets/pdf_file/0019/2090242/Report_080120.pdf). In this article our different perspectives came together to create an interdisciplinary understanding that would not have been impossible otherwise:

- Sarah: design anthropological interest in human creativity and improvisation to find ways of making the spaces they move through work for them
- Shanti: interest in spatiality as a geographer, to understand how people experience space and movement
- Melisa: interest in everyday design as a design research, looking at how people are continually designing the spaces they use daily.
- Laurene: interest in spatial design and how this is articulated through people's experience and construction of place.

These differing perspectives enabled the researchers to understand how people make, experience, and design spaces, in meaningful ways through their habitation of the new facilities and adaptation of them to their needs. Our differing disciplinary expertise frames enabled nuances of understanding to emerge and could challenge any disciplinary based assumptions from driving findings from the project.

5. Conclusion

The intersubjective nature of care demands that design research into the area draw on a range of perspectives, methodologies and knowledge traditions if we are to make meaningful contributions to people's experiences of care. We need to move beyond statements that such projects need to be inter or multidisciplinary, and make evident what this means in practice, what value does it really bring. We argue that this field demands disciplinary contributions if useful insights for future design applications are to emerge. In this project we have undertaken a design anthropology evaluation of a large -scale psychiatric development that was ambitious to challenge existing paradigms of care, through a transition process from one model of care to another. It is hoped that through this presentation of the four perspectives of the researchers involved in the Bendigo project, that we have been able to evidence the synergies and nuances of the various disciplinary domains and the ways that they have informed and framed the research that has been undertaken. The findings from this design anthropology have revealed significant and useful insights for Bendigo Hospital. The richness of the study and its potential for future application is, we would argue, the outcome of the robust methodology and the interdisciplinary team and the insights about the design of such project teams for future projects.

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