

[ij]

idea journal

interior technicity:
unplugged and/or switched on

vol. 17, no. 01

2020

the journal of IDEA: the interior design +
interior architecture educators' association

swipe inwards: the technicities of care in a psychiatric precinct

Laurene Vaughan

RMIT University

[0000-0003-2642-9967](https://orcid.org/0000-0003-2642-9967)

Melisa Duque

Monash University

[0000-0003-4231-6081](https://orcid.org/0000-0003-4231-6081)

Sarah Pink

Monash University

[0000-0003-0073-8382](https://orcid.org/0000-0003-0073-8382)

Shanti Sumartojo

Monash University

[0000-0002-8609-7493](https://orcid.org/0000-0002-8609-7493)

abstract

Infrastructures of accessibility have a significant impact on people's sensory experience of privacy, autonomy, and security in a psychiatric hospital. This is the case for patients and staff. Through an examination of the material and social interactions that staff and patients have at four inpatient psychiatric units, we have identified some of the affective aspects of using a variety of technologies. From locked and alarmed doors, to swipe cards, keys, and individual wristbands used to allow secure access and privacy within the units, each of these infrastructures afford different and sometimes paradoxical experiences. Through this analysis of the ways in which the embodied experiences of accessibility exist in relation to the interior technicities, this article discusses some of the implications for the design and use of physical environments that are dedicated to care, specifically, for psychiatric wellbeing.

cite as:

Vaughan, Laurene, Melisa Duque, Sarah Pink and Shanti Sumartojo. 'Swipe Inwards: The Technicities of Care in a Psychiatric Precinct,' *idea journal* 17, no.01 (2020): 170–186, <http://doi.org/10.37113/ij.v17i01.328>.

keywords:

sensory ethnography, psychiatric hospital, locks, care, security, autonomy

introduction

By examining the material and social interactions that staff and patients experience at four inpatient psychiatric units, our objective is to highlight some of the affective aspects of using a variety of technologies. From locked and alarmed doors, to swipe cards, keys, and individual wristbands that are used to allow secure access and privacy within the units, each of these infrastructures affords different and sometimes paradoxical experiences. What for some may create a sense of safety might for others feel like a loss of independence and autonomy. By analysing the ways in which the embodied experiences of accessibility exist in relation to the interior technicities—conceptualised here as the continually emerging relationships between people, technology and environment—we unpack some of the implications for the design and use of physical environments that are dedicated to care, specifically, for psychiatric wellbeing. This is a point of differentiation for such health care facilities from other medical institutions; patients within this context are not as free to come and go or meander through the facility as patients in hospitals are generally able to.

The abstract concepts of privacy, autonomy, and security are constituted by a combination of environmental and personal aspects that are not only determined by the materiality of a physical environment, but also by everyday contingent interactions between people and their indoor environments. The research which is the basis for this article was undertaken in a psychiatric facility within a greater hospital environment. In this context,

the relationship that people have with the location, their capacity to come and go, and their responses to the built and experiential environment vary significantly. How people experience the doors and locks that secure them will be defined by their role in this care community—patient, visitor, carer, or service provider—and will differ depending on the task that is being performed, the phase of healing that a person is at, or the number of people involved. By examining the infrastructures and experiences of accessibility through the specific examples of doors, swipe cards, and wristbands, we highlight the value that design aspects such as the materiality of doors have, and how the technicities through which they are experienced generate embodied and social affordances for wellbeing. For instance, the feeling of enclosure through a locked door could result in a sense of restraint or one of protection; this can vary for individuals in unexpected ways.

The research discussed here was undertaken as a three-year enquiry into people's experiences of the design and development of a new psychiatric precinct within a broader hospital development. In the original hospital facility, the psychiatric units were spread across three locations. These represented three different contexts of care: Adult Acute, Older Person, and Extended Care. Each location required a different framework of care and associated infrastructure according to specific needs. At the commencement of the research, a new hospital facility was being developed by Exemplar Health, and within this, psychiatry was to be co-located within the main hospital care framework. It is located

on the second floor of the hospital above oncology, thereby situating mental health within broader health care provision. The decision to integrate psychiatry into the main body of the hospital was an expression of the hospital's ambition to normalise mental health within overall health care provision.

The needs of the various units within psychiatry, from Adult Acute, Older People, and Extended Care to an innovative Parent and Infant Unit, are quite diverse, with differing requirements around security, communal activities, and observation by carers. All these aspects are articulated in the Model of Care, which was developed by Exemplar Health with Bendigo Hospital and the Victorian State Government. This document is the guide for how every aspect of care provision (material, technical, and service) for all stakeholders (patients, carers, service staff, visitors etc.) will be realised. It could be described as a master design brief that outlined the technical and infrastructure (physical, service, and communication) specifications of the space in conjunction with the embodied practices of care that would be enacted in the facility.

Based on our research, we argue that the subtle differences in meaning and implications of technicities need to be interrogated. The transition from technicity as originally conceived as being about the power of technologies, or about human-technology relations, needs to be reconsidered. Instead, technicity needs to be understood as part of the environmental conditions in which we live, and our experience of and actions in the environment. The sensorial environment of the

hospital is an excellent example of how that plays out through a diversity of experience.

method

We draw from findings from a design anthropology research project in which we developed design and sensory ethnographic methods to explore the experiences of these interior spaces of the new hospital with the various inhabitants. The development of this field and methods has been led by design researchers and ethnographers such as Professor of Design, Wendy Dunn and team, and Professor of Design Ethnography, Sarah Pink, and disseminated through their foundational publications.^{01, 02} This included design and architectural analysis, participant observation, video tours, and qualitative semi-structured interviews with 18 patients, 9 visitors and 125 staff. The research was undertaken in 2016-2018 at a psychiatric hospital in Bendigo, Victoria Australia. The study was designed over two key phases of site-based field work, with a reflection year in the middle. Year 1 (2016) was when the original ethnographic data collection took place through fieldwork across the three original psychiatric facilities. At the end of this year, psychiatric services moved to the new facility. Year 2 (2017) was a year of reflection where the participants were given time to settle into the new precinct. Year 3 (2019) was the second phase of fieldwork in the new co-located facility. Again, ethnographic interviews and observations of people's experiences of the space were undertaken. A total of 152 people participated in the study, including patients, visitors, medical and allied health staff and service providers.

It was through this focus on people—patients, caregivers and other service staff—that we aimed to understand the interconnections between that which is designed and built through a complex process of consultation and prototyping, and the subsequent lived experiences of the various stakeholders who inhabit it. When exploring the technicities of a care environment it is essential that we remember that the people in this place can also be understood as part of the infrastructure of care—whether they are patients or not. Their expectations, daily routines, past practices, and health condition will impact on and contribute to the socio-technical and cultural infrastructure of this place. A hospital facility without patients or caregivers is but a building in waiting.

an interlude—the doors and locks are open

In late 2016, on the day of the move from the old to the new hospital, two of the research team spent time in the facility as it was vacated. It was a somewhat confronting experience. Prior to this, all visits had been through secure doors, with supervision by members of the psychiatric team included. On this day, the doors were open, left ajar, locks were not needed. People—employees, movers and associated staff—moved freely through the space. There was no need for observation, or secure environs for the protection of patients, visitors or staff. The patients were absent and with that, the ambience and use of the facility was transformed. No longer was the space about keeping people in or out, securing people for their own wellbeing, it was just a series

of rooms. Abandoned hospital rooms, empty offices and treatment rooms. The constraints on the space were loosened, and the signs of prior use and habitation were laid bare. With this, it became apparent that the facility was no longer what it had been, its contribution as a care facility had passed, and the infrastructures that supported and enabled this were likewise redundant (Figures 01–08).

Figures 01–08:

Doors opened, and traces of lived spaces left in the old unit after the move to the new hospital. Photos by L. Vaughan, 2016.

It was remarkable how the traces of habitation were left bare, and with that the intention and fragility of the space, its purpose, and the infrastructures that ensured it were both absent and present. The fundamental purpose of the space—to provide care for the unwell—was gone. There were no patients and the medical and service staff were focused elsewhere. A space of care had become a place of work, and the value that the staff and patients placed on it as an environment of care had gone. It was a shell, or an environment of care without those being cared for, and with that, the technicities of care—physical, services, and ambiances of care—became clear, and the absence of patients provided a new lens to observe the new hospital environments and care ambitions in a fresh light.

considering this interior and its infrastructure

Psychiatric facilities are secure locations. Typically, patients are unable to come and go as they please, and staff movement is managed through a series of secure doors. In the past, such facilities have been likened to prisons and places of containment, but this is no longer the case.⁰³ There has been a transformation in how we understand and design such facilities of care, both structurally and in treatment practices. Yet, and necessarily, the role of locks and doors in ensuring safety and security continues. Through this focus on enclosure, we demonstrate the material, technical, and social aspects of the infrastructures of accessibility within the designed interior of this psychiatric hospital. We also aim to explore how these

play key roles in determining the embodied and sensory experiences of privacy, autonomy, and security for staff and patients as they navigate the unit's enclosures.

As noted by Professor of Economics Deborah Schneiderman, interior infrastructures include more than the individual elements of the interior architecture and can be conceived of as a network of interconnected elements.⁰⁴ Within a psychiatric facility, the provision of care spans the spectrum of 'soft/intimate' and 'firm/external' infrastructures. These include physical and psychological treatments for healing and wellbeing (therapeutic treatments, food, physical care), as well as the physical infrastructure of the facilities. In psychiatry, security and safety for everyone located there are essential elements of a model of care. Doors, alarm systems, and locks are key technicities for its realisation.

Spatially, the precinct consists of a series of rooms and hallways, clustered around contexts or classifications of care that are joined through a series of interconnected corridors. It was the manifestation of the model of care's ambition to have greater spatial transparency between patients and carers than has prevailed in the past.⁰⁵ The facility was designed as an agile and adaptable space, which could, to an extent, accommodate different patient groups as patient numbers expanded and contracted. As a co-located facility, the corridors and lifts also link the facility to other units in the hospital—emergency, radiology, surgery for example. Whether it is a room, hall or corridor, the actions of swiping, opening, closing, and

securing are ever present for the residents located there. They are seen, performed, and heard.

As we have worked through the findings from the research, we have identified both the material and social infrastructures of care in this environment. We have clustered them as themes: the material technicities of care (doors, locks, swipes, keys, and wristbands) and the sensorial technicities of care (noise, privacy, and security). In the next section, we discuss these by drawing on insights from the research and the inclusion of the voices of the participants. Often, evaluations of architectural projects such as this focus on the design intent and its material realisation. In this article and the research that informs it, we have focused on the voices and experiences of the people who either work there or are experiencing treatment, with the intention of identifying insights that can inform future projects.

the material technicities of care: doors, locks, swipes, keys, wrist bands

Doors, locks, and keys are a fundamental part of the 'materialities of care' in a psychiatric facility. Ensuring people's safety is essential—this includes both their physical safety and also the security of their things.⁰⁶ Patients are typically in hospital for an extended period and their room is their home, although some may call it otherwise. In order to support patients in having a sense of autonomy and security, they are issued with a wristband that works as a swipe access to their rooms (Figures 09 and 10).

A service manager commented:

All these swipe doors, each patient gets their own swipe card, a band, and they've actually got access and it's programmed to the room, so they've got access, obviously all the staffing keys work on every single one but the patients only have access just to their one room, so they can come and go as they please, in and out of their room, they don't have to ask to get in and swipe in and swipe out, so they've got their privacy.⁰⁷

Figure 09 and 10:
Both images show patients wearing the black wristbands. Photos by M. Duque, 2018.

When asked about the use of the bracelet, one patient in the Adults Unit stated:

Um, I think it is really useful, people keep thinking it's a Fitbit, yeah, my mom said to me the day I was admitted—oh I didn't know you had a Fitbit, and I said, Mum I don't! I said this is proof from crazy! (laughs)⁰⁸

Nursing staff report that in the past, patients regularly asked them to lock their doors, which meant staff would subsequently have to return to open them at a later stage. The wristbands have the ability to empower patients and provide freedom of movement that was not possible in the past. Yet, consistent with the contradictions of care, one nurse noted that:

the fact that patients have their own little RFID tags [wrist bands], so they can actually swipe in and out of the doors without needing to ask someone to lock it is excellent, and the feedback from patients has been really good.⁰⁹

While another stated:

Most of the time it works and it's a good initiative for gender safety. But some people feel like they're being tracked by them and often won't wear them and take them off. So, it's a bit challenging in that regard because they think we're spying on them through them.¹⁰

Designing a complex environment that provides a universal experience is nigh impossible. As we explored people's

experiences of technologies of care, it was apparent that what was good for one person, wasn't for another. There was variance depending on their process of adapting to the hospital, technologies, and phases of care and recovery. What felt good in the morning could feel differently at night, or what felt like a prison on the first day became like a home during the course of their stay. In this way, we can see that the technicities and material relations of care were contingent and experienced differently by different patients. Likewise, the ways that staff experienced the new technicities of doors and swipe cards across the built environment of the units varied (Figures 11 and 12).

Figure 11 and 12:

Different perspective from the same public and main access corridor to the Psychiatric Precinct. Photos by M Duque, 2018.

The decision to co-locate the various units together was done with the ambition of creating greater integration across the psychiatry units in the hospital. The size of the facility that had one main staff entrance leading to multiple specific care units means that, depending on which unit people are working in, they may have significantly different distances to walk and corridors and doors to negotiate in the course of the day. Although staff reported that having this cross-unit connection and opportunity to socialise in staff lounges has been productive, it has also resulted in some feeling that they are isolated from others because of the doors and locks that must be passed through (Figure 13).

Figure 13:

Swipe card in use. Photo by M Duque, 2018.

As one person described it:

I do find it sort of annoying in the morning that I have to go through so many different doors just to get here, we also have to swipe in the cards at the beginning of each day and I like to

use the stairs when I come in but there is no swipe machine near the stairs, so I have to walk an extra distance to swipe on the card and that's something at the end of the day as well.¹¹

In the past, access to facilities and rooms has been through the use of keys. This has been the case for staff. This transition to a digital access solution has on the whole been successful. A member of the administration team described it thus:

I think the swipe card is great; it's better than having a key for every different unit. Something that we did have trouble with at [the old facility] was keys going missing or you didn't have the correct access. Being an admin person, we can work across the whole service so knowing that that swipe will get us in is easy, knowing you're going into the day with, you're going to have access—you're not going to be stuck on the phone to IT or building and infrastructure trying to get the correct access. So yeah, it's definitely saved time in that sense.¹²

Often, the ambition of the introduction of digital access is to increase efficiency through digital infrastructures. The observations of the administration staff members are fairly consistent across the interviewees. Nursing staff noted that not all rooms are swipe accessible, and thus there is still a need for keys for some rooms such as linen and storage rooms. This can add to their daily workload, as keys often go missing. Quiet rooms (also

known by some as sensory rooms) are an important part of the therapeutic activity in the unit; they are spaces of refuge for patients because of their ambience, or places where patients can use particular sensory materials as calming devices. These rooms are available by key access, which nursing staff observe is less secure than swipe access with regard to contents. Nursing staff open facilities with keys for patients, and then have a choice of either staying with them or leaving and risking the loss of materials.

This ease of access through swipe cards extends to the use of shared computers by staff. Whereas in the past people had to log on and off to allow others access, they are now able to swipe on and off. In this way, the technology and infrastructures of access are both analogue or spatial and digital.

A prominent feature of the facility are the long corridors that provide access and pathways from one area to another. Some of the corridors have multiple doorways that must be passed through as people traverse from one end to another. Each doorway requires a swipe card as part of the access process. These layers of access are understood by many to be a good thing, ensuring security and safety; however, for others, they seem to take on the quality of an obstacle course. This is particularly the case when doors are nearby. For catering or cleaning staff, who are moving automated trolleys through the space, it can be challenging to get through one door before swiping to another (Figure 14).

Figure 14:

Domestic staff manoeuvring a food trolley across the Unit's entrance by a set of four air locked doors. Photo by M Duque. 2018.

For care workers such as occupational therapists, who may be walking groups of people from one location to another, it can be challenging to ensure patients safe passage, and to see that they don't get caught in corridor airlocks (also known as voids). For some, the noise of the doors and airlocks can be distressing, especially when they are hypersensitive to their environment.

I guess there's quite a few secure doors due to the nature of, of some of the wards, which can be somewhat problematic especially if we're doing groups and having to go through airlocks and having a large amount of people coming through, especially if they've got things like gait aids or wheelchairs which can sometimes be a bit of, like a game of Tetris to fit everyone through at the same time.¹³

In contrast, one of the nursing staff proposed the following:

Yeah definitely having the airlock helps. Personally, I think there should be three doors rather than just two to get through. I know it's more annoyance for us, especially if we're going through, we have to swipe to get in and get out, that type of thing. But the amount of patients we have that get into the second airlock, and then you know, you can't really block that other door off without someone else having to run around the other side and telling people not to come in and try not to swipe through cos we've got someone who's stuck in the airlock who's refusing to leave.¹⁴

The daily routines of hospitals are typically consistent, with meals, doctors' rounds, and activities scheduled to ensure ease of care and time use across a day. But they are also the sites of the unexpected; people's health can rapidly change, and emergency situations arise. In contrast to the previous accounts of regular activity, the following observations are by a service manager, who discusses the paradoxes of security and safety within both the day-to-day paradigm and emergency situations.

Service manager: Yeah, so you've got to have a compromise somewhere with the safety elements and the security elements because the beauty of it is it's a tracking system as well, so every time I've swiped on, it's now logged my card that I've swiped on that door so it's

all stored on a computer and it knows every person who swiped on that exact swipe, it knows who swipes on that one and we can do a full read of every single reader... So, the same thing with the bands or anything like that.¹⁵

Interviewer: Because of the alarms? Have you developed some sort of gestures to avoid it or things that you need to be careful about here?

Service manager: No, not necessarily. The airlocks in between each ward, it had an anti, like the airlock system was, it's that you swiped on one door but in those four doors, that's the only door that would open. No one could open the other doors to get through. The issue that we found is for any code grey or code blue or any calls that we needed to get, if the guys were running or the clinical staff were running to try and get through from one area and someone had the door open from the other side, they couldn't actually access to get through to where they needed to and make their response times.¹⁶

It should be noted that the technicity of security in the facility is not only in the built environment. There are also security personnel present on the wards. These guards contribute to the daily life of the wards, and by their own accounts, get to know patients and see themselves as part of the care team.

sensoriality of technicities of care: noise, security and privacy

Anyone who has spent time as a patient is cognisant of the daily rhythm and noise of a hospital environment. This noise is both ambient and structural — people talking, doors closing, alarms ringing. Noise was by far the most common area of concern voiced by the participants, particularly the noise made by the sound of doors opening and closing and the ‘clanking’ of swipe locks in rooms at night. Again, it is one of the paradoxes of care—the sound of a door makes when it securely locks both assures us that the door is locked but is in itself a noise that may cause us distress. In a secure facility, there are also alarms to accompany the sounds of doors closing. The reality is that institutional places of healing are likewise places of activity and work. The volume of the doors and alarms and the impact it has on patients was something noted in many of the interviews. (We note that since this time, processes have been put in place to minimise noise) (Figures 15 and 16).

An occupational therapist commented:

Some of the doors can be a bit loud and, and I know that on the ward we sometimes have overnight checks, so a client might be resting in bed or sleeping, and so nursing staff will need to come in and just make sure that everything’s tracking along all right and, yeah we’ve certainly had a bit of feedback that the opening and closing of some of the doors can be quite loud and disturbing, not just for the person in the room but even beside each other. So, in terms of doors, yeah. All of the doors are swipe access or manual, meaning that if you’ve got a key card you can kind of get through and again, again manual so kind of having to hold doors open and such which is okay. A lot of the doors here are alarmed, and I guess it’s, I can certainly see why that might be the case for the certain doors, like, medication rooms or for things that

Figures 15 and 16:
Patients’ bedroom doors are composed of two panels. The orange side is a safety door panel that can be opened in case of absconding.

The grey door side has an anti-ligature handle and is opened by activating the white rounded sensor (on the right) by patients with the wristband, and by staff with swipe cards.

Photos by M Duque, 2018.

need to be secure, but for a lot of doors that can sometimes remain open for a short period of time it sets off a really jarring kind of alarm which can startle a lot of people or catch a lot of people off guard, indicating that it needs to be closed, but, yeah. Potentially might have to bring out some of those waiting times if people are coming through or going the other way, or if it's an environment that doesn't need to be secure, yeah, maybe even just having the door open and not having an alarm attached to it might be, yeah, something we can look at in the future.¹⁷

There has been much debate between the various stakeholders regarding the sound of the door latches that accompany the swipe doors. The question of whether a better solution is available is still unresolved, but what is apparent is that when it comes to infrastructures that must perform acts of care and security such as a latch or a lock, having the least amount of impact and noise is desirable in a medical unit such as this. Whether it is the repeated sounds of locks and latches in hallways, or the sound of a door opening and closing through the night as nursing staff undertake their patient observations, there is a need to find a solution that is able to do both.

Medical facilities are locations that, on the premise of providing care, continually demand negotiations between public and private, self and other, care reception and provision. Honouring the privacy needs of patients is part of the care that is provided, and at times this

may be sacrificed in the name of wellbeing. At the same time, working in psychiatric facilities can be extremely stressful and demanding; carers, like patients, have a need for privacy; for separation from those that they care for.

Just as patients seem to benefit from the autonomy and security of being able to lock their rooms, they likewise seek out opportunities for privacy in the wards, which are by nature locations of observation. The new model of care that the psychiatric facility has been designed around emphasises a distributed rather than a central observational model care. In the past, the nurse's station was the focal point where carers looked out on patients. In the new ward design, staff and patients are more integrated, with variations in the internal spaces and the external courtyards.

The participants expressed a particular concern about patient ability to have privacy, particularly when they have visitors.

Like if your family comes in or your husband or your wife or your children, you don't have to share the lounge space with someone who's trying to detox from ice... And if you're a patient and you haven't got leave, then you can't get out of the unit to be with your family or your loved ones. For patients who are in there for, they say our average stay is 10 days, but there's a lot of people who are in there for a lot longer. I can understand how it might feel stir crazy. They're just trapped, feel trapped. And even if they don't have the

privacy of being with their own visitors somewhere, you know, in a private or semi-private space.¹⁸

Security and safety in this facility are not only framed through locks and doors that will ensure physical safety and restraint on movement in and out of the facility, there is also the need to ensure safety from gender-based abuse—physical or emotional. The facility was designed to be able to adapt to different needs and patient profiles over time. This is something that the nursing staff are conscious of and they make use of both internal and external spaces to this end.

discussion

As we have outlined, the technicities of care in a psychiatric facility are numerous. The material and sensorial infrastructures, along with a range of services and medical procedures, all performed with the aim of ensuring patient care and healing. There is a heightened focus within the facility, and in the Model of Care that guides it, of ensuring patient safety. Spaces and facilities are designed with an awareness of the possibility of self-harm, and in the design of this new facility there was extensive care taken to ensure that ligature points would not be created. From the design of specific door handles, bathroom facilities, window handles and heights, or the weight that a door frame can hold, the focus on the material care of patients is comprehensive. From individual patient rooms and doors, to the security doors in communal spaces, all are designed to ensure that there are minimal opportunities for self-harm. This includes the handles on

security doors in the facility; although they are used predominantly by nursing, service and security staff, they are also anti-ligature in their design. They are designed with small handles and no tie points, which is safe for patients but reported as cumbersome by staff. The doors are heavy, and the small handles make them difficult to use. What is safe for some can be a strain for others.

There are also contradictions to be experienced through the extensive use of glass windows and doors—both internally and to the courtyards. Here, the material technicities of care and sensorial experience intersect. The extensive use of glass increases the presence of natural light in the precinct, even with its large internal spaces, and is generally appreciated by all. Yet it also has the capacity for people to be seen and observed all the time. From a therapeutic care perspective, this is good; patients can have

Figure 17:

View from the inside of the nursing station at the Adult Acute Unit. Filtered view with the addition of the discharge tree which is used to leave messages of hope by patients upon their discharge. Photo by M Duque, 2018.

independence whilst being watched for any actions of harm. On the other hand, there is also a lack of privacy and a sense of always being watched, which can be problematic for those experiencing paranoia (this is also the case with the wrist bands) and may add to their distress. Of course, the observation is two-way. Patients are also able to observe staff as they go about their daily work, which, at times of stress caused by an encounter with another staff member or patient in the course of the day, can be distressing (Figure 17). This is a long-noted issue in psychiatric environments — the panoptic view of the well and unwell.¹⁹

In the old psychiatric precinct, the nurse's stations were shielded by glass and sliding glass doors (Figure 18). In the new facility there was a decision to create a greater sense of connection through a semi-open counter that has no glass, but a high bench partition (Figure 19). The aim of the new design is that nursing and clerical staff who are rostered on wards will have greater

connectivity to patients and the 'mood' of the ward, while still being protected behind a high and deep counter structure. This new design is a compromise between the traditional model of observational care and the contemporary application of a non-observational, embedded model.

Across both the material and sensorial technicities of care in the precinct, therapeutic practices of care and safety are always paramount. As discussed previously in the introduction, swipe locks for patient rooms was seen as a positive step in a patient's experiences of safety and autonomy, and like all procedures and practices, are subject to a patient's state of health and wellbeing. If a patient is displaying signs of self-harm, the locks to their rooms are opened and they will be observed by medical staff on a 15-minute rotation. All patients are observed throughout the night on an hourly basis. Locks provide independence and security, but they are always penetrable by the staff that are there to care.

Figure 18:
Enclosed nursing station at the old facility. Photo by S Sumartojo, 2016.

Figure 19:
Semi-open clerk desk at the nursing station from the new hospital. Photo by M Duque, 2018.

In designing this research study, the research team were cognisant that the transition from one place of work/care to another will likely be fraught with feelings of excitement for the new and nostalgia for the past. It was for this reason that year two was designed as a period of transition in the field work, a space for the participants to become familiar with the new facilities and for some of the defects, that inevitably come with any new build, to be noted and amended. It was apparent from consultation with the various stakeholders in the research that even at the end of year two of occupation, there were still amendments to be done, which is not uncommon with new builds. In this way, we can propose that there are also technicities of occupation that warrant further study and should be considered in any other such investigations.

conclusion

Through this research and this article's focus on the technicities of care: locks, keys, doors, and systems of care, and people's sensorial experience of them, we have endeavoured to identify some of the wider implications of infrastructures of care within an institutional context. This has included the ways in which the interior environments for a psychiatric precinct can impact the everyday lived experiences of privacy, autonomy, and security of staff and patients. Through this discussion, we have evidenced the implications that design has for practices and systems of care. This has implications for the design of infrastructures of psychiatric hospitals in particular, and healthcare architecture in general. The design of such interior environments and the associated material,

systems, and ambiance is complex, and, as we have shown, full of contrary interpretations and experiences by the various people who inhabit it.

acknowledgements

The Design for Wellbeing project was funded by an industry partnership between RMIT, Exemplar Health and Bendigo Health. The authors acknowledge the contributions by all the research participants in their findings.

We the authors of this article, acknowledge the traditional owners on whose unceded lands this research has been undertaken. These include the field work undertaken on the lands of the Dja Dja Wurrung and Taungurung peoples of the Kulin Nation, and the lands of the Woi wurrung and Boon wurrung language groups of the eastern Kulin Nation where we have undertaken the rest of our activity. We respectfully acknowledge their Ancestors and Elders past, present and emerging.

authors' biographies

Laurene Vaughan is Professor and Dean of the School of Design at RMIT University. She is a practising artist, designer and educator, who, through her research, explores and comments on the interactive and situated nature of human experience.

Melisa Duque is a Research Fellow of the Emerging Technologies Research Lab, and a full-time member based at the Department of Design MADA. As a design researcher, her work sits at the intersection of Design Anthropology, Participatory Design and Everyday Design.

Shanti Sumartojo is Associate Professor of Design Research at Monash Art, Design and Architecture and a member of the Emerging Technologies Research Lab at Monash University. Her recent books include *Atmospheres and the Experiential World: Theory and Methods* (with Sarah Pink).

Sarah Pink is Professor and Director of the Emerging Technologies Research Lab at Monash University. She is known internationally for her work in design anthropology, innovation in ethnographic and futures research methodologies, and bringing together academic scholarship, applied and video practice.

notes

- 01** Wendy Gunn, Ton Otto and Rachel Charlotte Smith, eds, *Design Anthropology: Theory and Practice* (London: Bloomsbury Publishing, 2013); Rachel Charlotte Smith, Kasper Tang Vangkilde, Mette Gislev Kjærsgaard, Ton Otto, Joachim Halse and Thomas Binder, *Design Anthropological Futures: Exploring Emergence, Intervention and Formation* (London; New York, NY: Bloomsbury Academic, an imprint of Bloomsbury Publishing, 2016).
- 02** Sarah Pink, *Doing Sensory Ethnography* (London: Sage, 2015).
- 03** Erving Goffman, *Asylums. Essays on the Social Situation of Mental Patients and other Inmates* (London: Penguin Books, 1961).
- 04** Deborah Schneiderman, 'Network/Infrastructure/Interior', *Interiors* 9, no. 1, (2018): 88-99, <https://doi.org/10.1080/20419112.2018.1485383>
- 05** Rory du Plessis, 'Constructing Patient–Psychiatrist Relations in Psychiatric Hospitals: The Role of Space and Personal Action,' *Social Semiotics* 23, no. 3, (2013): 424-443, <https://doi.org/10.1080/10350330.2012.739003>
- 06** Christina Buse, Daryl Martin, and Sarah Nettleton, 'Conceptualising "Materialities of Care": Making Visible Mundane Material Culture in Health and Social Care Contexts,' *Sociology of Health & Illness* 40, no. 2 (2018): 244, Wiley Online Journals, January 25, 2020. <https://doi.org/10.1111/1467-9566.12663>
- 07** Service manager, interview on 2018, with Sarah Pink and Melisa Duque, face-to-face on-site video and audio recorded.
- 08** Patient, interview on 2018, with Sarah Pink and Melisa Duque, face-to-face on-site audio recorded.
- 09** Nurse (a), interview on 2018, with Melisa Duque, face-to-face on-site audio recorded.
- 10** Nurse (b), interview on 2018, with Melisa Duque, face-to-face on-site audio recorded.
- 11** Medical staff, Interview on 2018, with Melisa Duque, face-to-face on-site audio recorded.
- 12** Administration staff, interview on 2018, with Melisa Duque, face-to-face on-site video and audio recorded.
- 13** Occupational therapist, interview on 2018, with Melisa Duque, face-to-face on-site audio recorded.
- 14** Nurse (c), interview on 2018, with Melisa Duque, face-to-face on-site audio recorded.
- 15** Service manager, interview on 2018.
- 16** Service manager, interview on 2018.
- 17** Occupational therapist, interview on 2018.
- 18** Nurse (d), interview on 2018, with Melisa Duque, face-to-face on-site audio recorded.
- 19** Martin Salzmänn-Erikson & Henrik Eriksson, 'Panoptic Power and Mental Health Nursing-space and Surveillance in Relation to Staff, Patients, and Neutral Places,' *Issues in Mental Health Nursing* 33, no. 8, (2012): 500-504.