

## Editors' Introduction to Chapter 13

Public restrooms are among the most under-studied and under-designed components of urban infrastructure. Perhaps it is due to the toilet's association with waste and dirt. Maybe it is considered unimportant because it is a culturally unpleasant subject. Consider an alternate point of view. The loo (an informal term for toilet) is essential to urban settings. The challenges of designing the loo make it one of the best opportunities for those interested in improving the public environment.

In large part because of concern about germs, public toilets often are used only as a last option. Loos challenge product designers, architects, and planners to consider criteria that are often overlooked in the design process: sensory experience, equity, identity, cultural appropriateness, psychological/behavioral issues, gender and age issues, timing, flexibility, safety, security, cleanliness, convenience, and comfort.

Public bathrooms are complex and often contradictory elements of cities. They are private spaces in public places. Their primary purposes are for the elimination of urine and feces as well as personal hygiene and grooming, but restrooms serve other functions as well. Sometimes we go there to talk with someone about a private matter or to check cell-phone messages. Some use the public toilet for clandestine sexual activity, and others for drug use. Often the restroom serves as a refuge—a place to hide, be alone, or gather one's bearings. Rather than denying the many uses for public facilities, designers could consider all the possibilities, especially those that do not fit with their own preconceptions.

Design anthropologist Jo-Anne Bichard's case study describes why this commonplace urban element does not work well for many people. Perhaps designers neglected to observe how people use loos or the circumstances requiring their use. Perhaps they didn't consider the wide range of possible users such as older people, women, and those with disabilities. She takes steps to ensure that everyone is considered in the design process, focusing on personal empowerment through multi-sensory and human-centered approaches.

In this chapter, Bichard describes an ethnographic approach to public toilet design in addition to inclusive design. Ethnography, the scientific study of people and cultures in context, incorporates the viewpoints of the people being observed. Typically, ethnographers work with people in their own environments rather than in laboratory settings. Design ethnographers use specific frameworks, processes, and tools to help them detect patterns of behavior that can contribute to improvements in the human-made world. This systematic and immersive way of working gives designers a deeper understanding of how people experience and make sense of their worlds, ultimately leading to more thoughtful solutions.

Bichard suggests several questions for us to consider. How do various groups affect the design of public places, specifically public toilets? How do conflicting interests of users affect the evolution of a design? How do we change attitudes about public facilities that resonate with the broader population? How do we reshape everyday places to transform human values into design?

# ExcLOOsion

## How Design is Failing Sanitary Provision

*Jo-Anne Bichard*

### **Are You Sitting Comfortably?**

Where are you reading this chapter? Are you in school, the office, on the bus or train? If you are reading this whilst away from the place you call home, are you settled and comfortable, perhaps with your favorite beverage? Did you use the toilet before settling down, or do you think you might need to use the "loo" soon?<sup>1</sup> At some point today, you will. Where will you go "to go"? Are you so familiar with the space that you instinctively know where the facilities are? Or are you traveling, and so begins the hunt for a facility that you can access? Is there signage? Is it easy to get to in the time you need to get there? Is the toilet itself in a fit state to use?

For some people, using the lavatory when away from the comfort of the familiar toilet is done without much thought or negotiation. One feels the need to use the toilet, one finds the toilet, one toilets. But for many people, especially when they are in an unfamiliar place, the most natural of acts, the necessity of excretion, becomes fraught with difficulty. For some, a visual impairment may make any signage to the toilet irrelevant, not only on the journey but also in identifying "correct" gender designations. For some, just a few raised steps to the toilet facility may make it inaccessible. For some, the space of the stall may be problematic for themselves, their caregiver, or their mobility aids. For some, there may be problems locking the door, and getting down to or up from the WC pan. There may be no toilet-paper roll, or the roll holder and flush mechanism may be inaccessible to a hand with arthritis. For some, washing hands after using the toilet is a challenge; the sink cannot be reached; the water is too hot or too cold; there is no soap; and the dryers scare children, young people with autism, and older people with dementia. For some, a combination of all these factors make a biologically natural act the equivalent of an endurance test, both physically and cognitively. As Gavin, who is visually impaired, commented:

I was standing in the middle of the station thinking, “I want to go to the loo,” hoping there would be a sign saying the loo is at least on the same level. ... Well, it wasn’t down one flight; it was down four flights of stairs. ... It wasn’t great. That may well have been the last time I used a public toilet, and I just remember thinking, “God I wish these stairs weren’t here,” it’s just a design thing really.

This chapter gives an overview of nearly a decade’s research into publicly accessible toilet provision that formed two United Kingdom Research Council-funded design-research projects and the author’s Ph.D. research.<sup>2</sup> The primary method of data collection was user-centered in practice, comprising interviews, focus groups, design participation workshops and letters written to the research groups. In total, 349 informants contributed to both projects’ ethnographic data collection.

Participants in the projects spanned a wide age range, with mothers describing the needs of their newborn babies to male and female nonagenarians who were independent or being cared for. Informants within these age ranges also identified as having a disability. These body differences included visible and invisible (dis)abilities, encompassing sensory, cognitive, and/or mobility impairments. In total, some 30 percent of participants identified as having an impairment that restricted their access to the built environment.

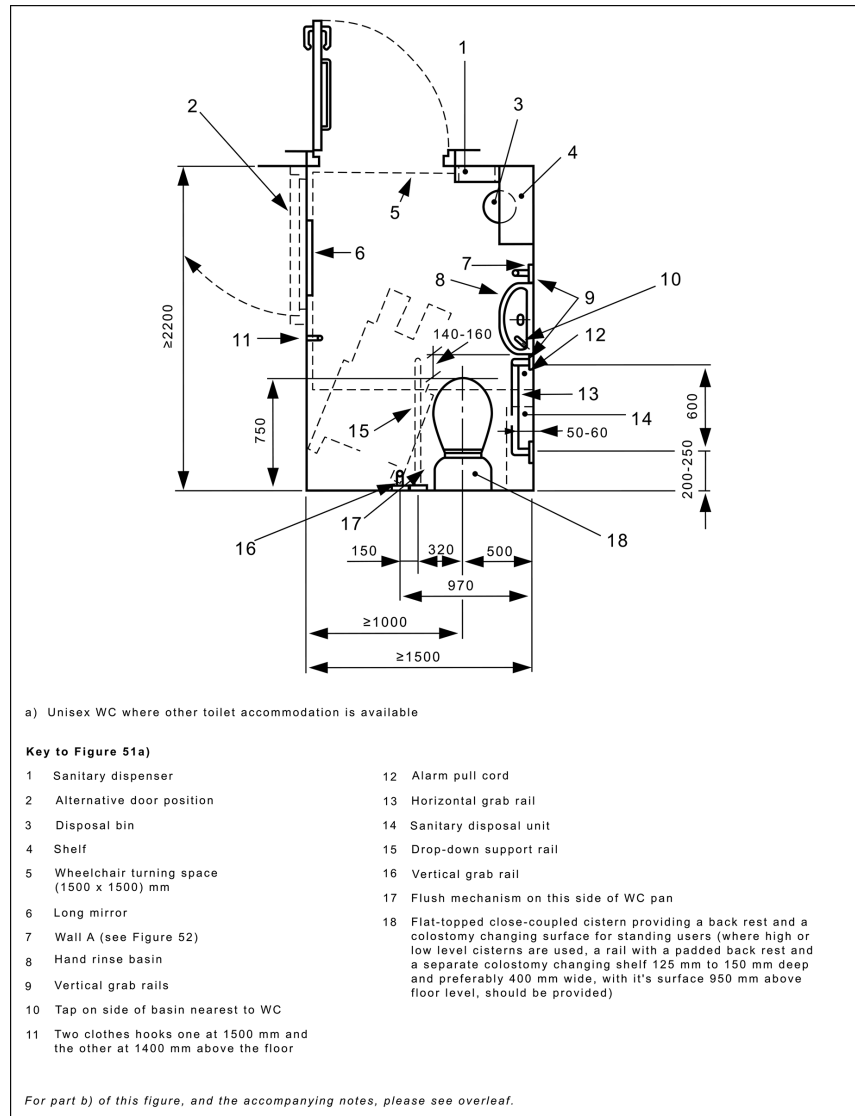
## Defining the Field

The term *built environment* is used to delineate our human-made environment from that which we designate *natural*. Toilets present a certain disjuncture within this concept, because they are human-made environments for a biological act of necessity. Many people are familiar with the term “public toilet” and, in the UK, these have been traditionally owned and operated by local authorities.<sup>3</sup> In current UK legislature, there is no statutory right for these authorities to offer provisions, and, over the last decade, the British Toilet Association has reported a dramatic decrease in the number of public toilets available.<sup>4</sup>

Whilst there is a decline in *public* provisions, there are many toilets within the private sector including those operated by train stations, motorway services, department stores, shopping malls, hotels, public houses and cafés, and supermarkets—open to customers, and, therefore, serving a measure of the public. To counter the decline in public toilets, many local authorities have partnered with local businesses to offer toilet provisions beyond customer-only use. These Community Toilet Schemes offer the business a payment to cover costs, such as cleaning and maintenance, in return for making their toilets publicly available. However, this further complicates counting and mapping how many toilets there are, since the businesses involved in these community schemes often opt in and out yearly. To ensure that all available toilets, both public (local authority provision) and private (commercial provision), are considered, these studies have incorporated the term “publicly accessible toilet” to denote provision that is both publicly and privately owned and operated and to which the public has access.

► Figure 13.1

Floor plan for BS 8300 Unisex Accessible Cubicle.



## Fragmented Provision Reflects Fragmented Design

With so many different providers and no central body overseeing this provision, the management of public toilets is described by Greed as "fragmented."<sup>5</sup> This disjointed approach to provision also is reflected in the design of the publicly accessible toilet despite many guidelines for the design and management of these facilities.

The principle guidelines to the design of the publicly accessible toilet are the British Standard BS 6465 (2006, 2009), for the design of standard toilet provisions predominately catering to the able body, and the British Standard BS

8300 (2009, 2010), which focuses on the needs of the (dis)abled body. BS 8300 is described as a unisex accessible cubicle and is considerably larger than the standard cubicle in order to accommodate a user who requires a wheelchair or a caregiver (who may be of the opposite gender), as well as supporting furnishings such as hand-washing equipment and grab rails. The design template for BS8300 is also used for the design legislation of Approved Document M (2013) of the building regulations, and therefore has a legislative requirement.

The approved guidelines stipulate minimum design requirements and allow for expansion. This has resulted in many disability groups presenting design recommendations and alternative templates for designers to use. For designers, this abundance of alternative solutions has created a wealth of information and, when implemented, has created a variance in the designs of accessible toilet provision. The resulting variety of toilet design has created a sense of confusion for users, who see a need for more standardization. For many users the inability to access suitable public toilets, including an accessible design, can place people on “the bladder’s leash,” preventing their access to more distant city spaces, as well as leisure and work opportunities.<sup>6</sup>

## **A Toilet Audit Tool**

To assess the current design of accessible toilet provisions, Hanson designed a Toilet Audit Tool to quantify the design elements of existing toilet cubicles.<sup>7</sup> Analysis of the BS 8300 and ADM templates outlined 50 design features of the unisex accessible cubicle. These included the dimensions of the cubicle and the inclusion and placement of the recommended fixtures and fittings. Using the audit tool, the researchers reviewed 101 toilets in nine English cities and found that none had included the 50 design features as recommended in the design guidance. This highlighted the need to understand how the toilet cubicle was used and showed that incorrectly locating or excluding one of the design features could result in a space not suitable for use. The most commonly observed design feature within the cubicle was the inclusion of lever taps. These were found in 98 percent of accessible toilets. Yet, the researchers noted that, while the guidance recommended taps to be placed on the side of the washbasin closest to the toilet pan for access by seated users, many had the taps installed in the middle or the opposite of the recommended side. Here we see that, although the guidance had been followed with the installation of the correct design of tap, the placement of the tap had not followed the recommendations.

Another common feature of the accessible toilet cubicle is the grab rail to support users whilst transferring on and off the toilet as well as for support whilst toileting. Of the audited cubicles, 95 percent were considered to have sturdy grab rails. Yet only 78 percent of the cubicles had grab rails of the recommended length (600mm), and less than half (from 16 percent to 40 percent) of cubicles had the configuration of grab rails at the correct heights.<sup>8</sup> The misalignment of grab rails makes transferring on and off the toilet difficult for users, especially those who require a wheelchair for mobility. This was particularly problematic for informants who had experienced spinal injury, as the grab-rail configuration

► **Figure 13.2**

Lever tap in correct position of basin closest to the WC pan.



◀ **Figure 13.3**

Lever tap positioned incorrectly furthest from the WC pan requiring user to reach further if still seated on toilet.



determined how they might use the toilet. For users with spinal injury, transfer options for getting onto and off the WC pan are determined during the rehabilitation process, and an incorrect configuration can complicate toileting. It also suggests that the very design intervention installed to aid access can, if not implemented correctly, impede the actions it was meant to assist.

The extended size of the accessible cubicle allows not only for the space of the wheelchair but also assistance from a caregiver. Some 91 percent of cubicles had the correct door width allowing a wheelchair user to enter the cubicle; 71 percent had the correct floor plan width of 1,500mm. However, only 36 percent had the correct depth of 2,200mm. This effectively results in 64 percent of cubicles not following the guidance for the architectural template of the cubicle. Miles, who uses a power chair, illustrates the problem well:

[In] some [public toilets] you can't turn around to shut the door—might be able to get in head on and use the loo, but can't close the door. Sometimes I can twist round and close the door, but then often I can't open it again. Lots of toilets call themselves disabled, but there's not enough room to turn around.

The design feature found to be lacking in most cubicles was the colostomy shelf. This fixture provides a flat surface for those who use colostomy bags to place the

▲ **Figure 13.4**

Grab rails in the unisex accessible cubicle.



▲ **Figure 13.5**

A shelf in the cubicle is set in the guidelines to aid users with stomas in the management of their (dis)ability. It is recommended that the shelf is close to the WC pan (see details in Figure 13.1). This shelf does not follow guidance.

equipment they need (new bags, cleaning wipes, medical lotions, etc.). The inclusion of the colostomy shelf was found in only 3 percent of cubicles, and it was noted that the placement of the shelf was not in line with the guidelines.

## Non-Toileting Behaviors

The inclusion of the colostomy shelf also highlighted a conflict in the design guidance. Providers had been urged not to include shelves, as this offered a flat surface for the use of illegal drugs. Greed, Hanson et al., and Knight and Bichard have identified how the needs of access are often superseded by the concerns of criminal behavior, a conflict Greed has termed “access versus fortress” and that Bichard has identified as emerging through “secured by design” predominating over inclusive design approaches.<sup>9</sup>

The predominance of the secured-by-design approach, an initiative of the UK police service that focuses on crime prevention in the design outcome, aims to reduce the opportunity for criminal behavior by reducing, in the design, opportunities for the behavior to take place. In many ways, this emphasis focuses on a minority population (those intent on criminal activity) and does not consider the use of public space and facilities by the majority. In the instance of publicly accessible toilets, a secured-by-design approach that seeks to exclude some forms of behavior has often taken precedence over an inclusive design philosophy in which access by the user is one of the primary motivations.



A security approach has been particularly prevalent in the design of publicly accessible toilet facilities, due to their specific cultural association with spaces of anti-social activity, namely the taking of illegal substances and the opportunity of consensual and non-consensual sexual contact. Such an approach has provoked a number of recommendations, such as the removal of the colostomy shelf to prevent drug use and the removal of mirrors to prevent eye contact, an initiative to sexual liaisons, as well as the development of new products, such as the ultra-violet (UV) blue light.

UV blue lights have been installed in toilets to prevent intravenous drug use, by making veins undetectable in the blue light. Hanson found that such lighting also prevented people with visual impairments from identifying contrasting elements of the environment.<sup>10</sup> Caregivers of people with autism reported that those they cared for became distressed in such environments. People with stomas reported the inability to clean their stoma under these lighting conditions.<sup>11</sup> Fred, a wheelchair user who, like many people with disabilities, has other mobility concerns, described his encounter with a toilet illuminated by blue light:

I have a problem with those blue lights. I have a syndrome where my eyes react to light and where my pupils don't change from dark to bright light rapidly. I'm not visually impaired, but I do find blue lights very disorientating. It would be difficult to transfer and feel comfortable.

Moreover, Cockfield and Moss found that the inclusion of such lights, whilst briefly deterring the use of the facilities by drug users, also created a degree of erotic ambience, resulting in increased opportunities for those seeking sexual contact within facilities.<sup>12, 13</sup> Not only did the light cause exclusion but it also acted to facilitate another form of behavior that these kinds of products aim to design out. Thus the blue UV light has shown that such product development can effectively backfire.

## The Experience of Users

Within design, one of the main principles of involving users in the process has been through inclusive design. Extending the process, Knight and Richard described inclusive design as a philosophy in which end users actively contribute to the design research process, which gives their needs and voices a central role.<sup>14</sup> In 2005, the management of the inclusive design process was documented in the British Standard BS 7000-6: 2005 as "the design of mainstream products and/or services that are accessible to and useable by as many people as is reasonably possible ... without the need for special adaptation or specialized design."<sup>15</sup> It has



▲ Figure 13.6  
A UV 'blue light' toilet.

become a popular method to develop design innovations for public amenities, but can especially meet the needs of older people and people with disabilities. A central tenet of inclusive design is that, by working with 'extreme users', namely older and disabled people, the needs of the most challenged members of society are met, and the resulting solutions better serve the majority.<sup>16</sup>

Richard suggested that it is not only the needs of users that designers can draw upon, but also their experiences.<sup>17</sup> Whilst inclusive design may offer solutions based on users' involvement in the design process, it can still result in design outputs that are tailored to a specific user's needs. In opening up the design focus to the experience of the user, needs can be considered in a comprehensive and holistic way. Experience design has become a popular approach in Human-Computer Interaction (HCI), but has yet to be fully explored by wider design practices, especially architecture, urban design, and the design of products and services that inhabit these spaces. The findings of the Toilet Audit Tool highlighted how a needs-based approach has not met people's requirements and, hence, an approach in design research of toilets may offer more satisfying solutions for users.

One way to incorporate user experiences is to consider the work of environmental psychologist J.J. Gibson on "affordances."<sup>18</sup> Gibson's notion of affordance has proved popular in design research disciplines, including spatial planning, interface and product design, and architecture.

## Affordance

Gibson spoke about affordances in the context of not just people but animals in general, proposing that the affordance of an environment is what it offers the animal, what it provides or furnishes—with either positive or negative results. "A surface that is flat, rigid, and horizontal will afford being stood and walked on. Yet, this affordance is only complementary to the animal so that whilst a flat, horizontal and rigid surface affords walkability, it does not afford swim-ability for a fish. The affordance of these surfaces can also afford falling off and bumping into as 'different layouts afford different behaviors and different mechanical encounters.'"<sup>19</sup> Here, we see that the environment can be beneficial for some, yet hazardous for others. Gibson stressed that there is only one environment, and this has been altered by humans. He contended that this has been done "selfishly, wastefully, and thoughtlessly."<sup>20</sup>

Gaver has extended Gibson's concept and suggests that "affordances can provide a useful tool for user-centered analysis."<sup>21</sup> Gaver introduced the concept of the nested affordance. For example, a door handle on its own is merely an independent artifact, yet when attached to the door, it affords the action of opening. Affordances are predominately applied to functional aspects of design resulting in:

- Door handle > door > open
- Flush handle > cistern > flush
- But what affordances are invoked should these designed functions fail?



## Affording Experience

Sally, who uses a wheelchair to aid her mobility, described her experience of not being able to flush a toilet after use.

In one place I had to go and tell someone I hadn't flushed it. I had to queue at customer services and tell the sales person and everyone not to use the toilet because I hadn't flushed. It was so humiliating—a loss of dignity. I had a choice of humiliating myself or leaving the toilet unflushed.

Susan's experience illustrates that there is more to the product and its context, than the "form-follows-function" ethos of design. For Susan, the inability to use the flush handle prevented her from completing her toileting and resulted in a loss of dignity. This suggests that affordance can be extended to wider experiential concerns.

Another aspect of dignity comes through ritual practice associated with toileting. Zahaa described her preference for the unisex accessible toilet when toileting: "It's embarrassing trying to do ablution in public toilets. That's why the disabled cubicle is so good, as it's spacious and not embarrassing ... not in full view of everyone." For Zahaa, the privacy of a fully enclosed cubicle offered dignity away from others for toileting and hygiene observance that may encompass performative aspects not recognized by other users of the space.

Mothers who participated in the research also shared their experiences of the failure of toilet design to consider the dignity of the user. One mother, sensitive to the dignity of others, described her son:

▲ Figure 13.7

The flush handle should be situated on the 'transfer' side of the cistern (not on the wall side as pictured here) so that wheelchair users can flush the toilet after transferring back to their chair.

[He is] fascinated by gaps underneath the door. He tries to crawl underneath especially when I'm on the loo, or he peers under the gap and upsets the person next door. It's an issue at crawling age. I can't put him on the floor; he'll just head for the gap, so I have to go with him on my lap.

For this mother, current partition design infringes on the dignity of others in comparison to a fully enclosed cubicle.

These examples highlight how design needs to consider conceptual themes beyond the mere function of the artifact. Within the design of the publicly accessible toilet, the design brief focuses merely on minimal privacy and the disposal of bodily wastes. The failure to incorporate the correct products, such as the flush handle (on the correct side of the cistern), in the recommended configuration, and the actual experiences of the users, as mentioned by Sally above, highlight that these artifacts serve more than functional aspects. The failure to be able to flush the toilet after use, have somewhere private to conduct personal and cultural observances, and respect the dignity of other users of these facilities highlight a more complex relationship between the users and this space.

## A Design Trinity

The broader services within which the products are part are often disregarded as well. In considering the design of the publicly accessible toilet, the architect will have arranged the spatial dimensions, including aspects such as the toilet paper dispenser, within the design template. In turn, the product designer, following guidelines for a toilet paper dispenser that is accessible, will assure the design meets the single-sheet recommendation. Yet, if the toilet paper dispenser is empty and not serviced, the provision of the publicly accessible toilet fails. This suggests that service requirements need to be considered within the design of the whole.

These trinities of design practice highlight how inclusive design must encompass not only the physical projects but also the systems that keep them functional. There is a need for designers to engage with each other *and* the users to understand how their environment, product, and service will work together, in co-design processes with those who will use the space. Bichard and Gheerawoo question if such collaboration is possible given time frames and client expectations within the design brief.<sup>22</sup>

## Design Anthropology

Design can be considered an activity comprising many disciplines—architecture, engineering, product design, services, human–computer interaction, and ethnographic research. Within this myriad of activities, there are a parallel variety of frameworks within which the activity is set; it may be sustainable, inclusive, rehabilitative, secure, participatory, empathic, and/or experiential.<sup>23</sup> Given the complexity of these design activities and frameworks, a new theoretical

understanding is emerging around what designers do, how they do it, and how their practice fits amongst this multidimensional landscape.

Gunn and Donovan proposed design anthropology as an emergent discipline that “aims towards instigating different ways of designing across different scales, for example products, services, policies, but also working relationships.”<sup>24</sup> Their proposition asserted that design anthropology offers a shift from the “problem-driven design question” to one in which the problem may not be there, or at least not obvious on initial investigation. Arguing that the world is “versatile,” they suggested the need to move away from one situated context of use, and to consider many contexts and practices that might also consider the unintended consequences of design. Equally, Ingold called for a shift in design’s perception of the user from passive recipient of the designed artifact to *user-cum-producer*.<sup>25</sup>

The research and theoretical underpinnings in this field have predominantly taken place under the SPIRE program, and defined design anthropology as a field “not owned by any one discipline or sub-group within a discipline.”<sup>26</sup> <sup>27</sup> To help in delineating the possibilities of design anthropology, the program has identified discrete ways of understanding and practice, and suggests a framework composed of three models— *dA*, *Da*, and *DA*—to accentuate the position and influence of anthropology and design in practice.<sup>28</sup>

For work undertaken from a *dA* position, design follows the anthropological lead; design is the object of anthropological study or adopts a theoretical understanding from anthropology. *Da*, in some ways, reverses the relationship between the disciplines and finds fieldwork, a central anthropological activity, placed in the service of design. This positioning tends to follow a more traditional design-as-problem-solving approach rather than an exploration involving a deeper level of engagement with people. Both *dA* and *Da* approaches are well established within university departments of anthropology and design.<sup>29, 30</sup> In contrast, the *DA* approach converges both disciplines, in which design and anthropology inform each other to a position of achieving a mutual knowledge exchange. This shifts anthropology as merely the informant for design, to active re-framing of the wider “social, cultural and environmental relations in both design and anthropology.”<sup>31</sup> *DA* can offer a critique not only to the disciplines, but also “towards rethinking what design and innovation could be.”<sup>32</sup>

## ***Da dA DA* in the Toilet: A Personal Reflection**

Situating the work outlined above within the framework of design anthropology presents an opportunity to highlight how the collaboration between social anthropology and design can evolve. Julianne Hanson, architect and professor, first conceived this toilet research, which was informed by my role as research fellow with training in social anthropology and ethnographic studies with people with cognitive impairments. In these early stages of the research, my anthropological training and experience helped frame the questions to be asked and the theoretical underpinnings of the project. These included the recognition of the “body” as a socio-cultural product, socially molded and shaped according to society’s norms and goals. This perspective places the body in the environment, which, at

this stage of the research, prior to any informant contact, was the object of the study, and, therefore, set the foundations of the project within the *dA* framework in which anthropology informed the initial design research.

As the project progressed and my knowledge of architectural design grew, the project shifted to a *Da* position in which the fieldwork of design audits, observational studies, and in-depth interviews were very much in the service of design. By this stage, there was a clear problem definition that identified the difficulties users were having with the design and layout of the accessible toilet. By highlighting these issues, designers have evidence that helps to avoid current mistakes. Whilst the environment remained the object of the study, the details emerging from informants with a variety of (dis)abilities helped classify how the design had failed to meet their needs.

The *Da* position was also adopted in the second research project that focused on the standard toilet cubicle. This phase included an industrial designer and a now-design-aware social anthropologist. The development of a participatory design game that involved informants in the creative research process, as well as the information gathered from interviews with those responsible for toilet provision, produced a clearer problem definition for the research team. This concerned the difficulty faced by toilet providers in communicating information about toilet availability—such as location, opening times, temporary or permanent closures, and accessibility options—for users to plan their journeys.

Analysis of the research data was completed in collaboration between the designer and anthropologist, and resulted in the development of The Great British Public Toilet Map, a web-based resource that identifies where a toilet is and its features (accessible cubicle, baby changing, etc.).<sup>33, 34</sup> This resource allows people who may have concerns on finding a toilet, to not only plan in advance for future use but also to identify provisions near their current locations. Using open data provided by local authorities to populate the map ensures that information will be updated more frequently.

The project secured secondary funding and the map's development moved onto a stage in which the collaboration has been extended to involve the designer (Ramster), the anthropologist (Bichard), web developers (Neon Tribe), and members of the public. In this phase of the research, all parties have informed each other. The designer has made creative decisions about the map's direction and future possibilities, and these, in turn, were informed by the social anthropologist's evaluation of affordance, along with user engagement that focused on how the resulting design could and would be used. The web developers brought further prototyping tools to the development process to witness how users, specifically older people, would engage with digital technologies and the functions the map would provide. Testing these prototypes with the people who would ultimately use them revealed a resistance amongst some users to such digital applications and the need for the project team to provide opportunities for the map to be printed. This balanced collaboration between design, anthropology, web developers, and users helped improve the design and can be considered to echo the *DA* ethos Gunn and Donovan suggested.<sup>35</sup>

## Where to Go 'To Go'

Did you find the toilet? How was it? Did it meet your needs or was there nowhere to hang your coat or place your bag? Perhaps you hesitated when operating the door lock—it is, after all, considered one of the more dirty features of public loos. Did you use toilet tissue to open it? For many people, there is an inherent hesitation when using these facilities, especially the unfamiliar ones en route to our destinations—the toilets of the train station, the unfamiliar café, or one of the remaining public lavatories. The apprehension of the unknown can cause hesitation. Will it be safe? Will it be clean? Will there be others in there? These are complex considerations for design to sensitively consider if we are to move away from the access-vs.-fortress paradigm as demonstrated by the Automatic Public Convenience (APC).<sup>36</sup> Contenance advisors suggest that good bladder and bowel health is maintained if we are relaxed when toileting. This is hard to achieve if one is fearful of sitting down because of hygienic conditions.

These concerns are equaled, if not magnified, for those who manage sensory, cognitive, and mobility concerns. It is important to recognize that (dis)ability is as equally complex as the context of use and the supporting environment.<sup>37</sup> People may have visual impairments *and* use wheelchairs. To design for (dis)ability from a singular perspective risks excluding others.<sup>38</sup>

Kitchin and Law found that many people tether themselves to areas of familiarity based on their knowledge and experience of the toilet provision in that area.<sup>39</sup> One of the respondents in the research described herself as being like “a little animal,” always returning to the same place to use the toilet for fear of not being able to use an unfamiliar provision. For others, the known/unknown becomes the barrier that will not be crossed and they limit the time they are away from home, preferring the safety and sanctity of the toilet in the home. Such active withdrawal from public space can be accentuated as the body ages and becomes frailer. A report by a U.K. Ageing charity found that 52 percent of respondents cited the lack of suitable toilets prevented them from leaving the home as often as they liked. This often leads to a sense of isolation and loneliness, and has been reported to be a bigger health concern than obesity.<sup>40</sup>

Despite these contextual complexities, the one thing all bodies have in common is the need to excrete. What other factors are coming to the fore in preventing satisfactory design solutions for this universal need? Toilets are not necessarily a pleasant subject to talk about—but people do talk about them. Could it also be the toilets' wider cultural association with waste and dirt that thwarts design attention? Is it considered unimportant because it is not pleasant subject matter?

Consider an alternative point of view. The loo is an essential requirement of a public environment. It is used by a wide variety of people. The many challenges of this environment make it one of the best design opportunities for those who are interested in improving the public

▼ Figure 13.8

The Automatic Public Convenience (APC) is illustrative of a 'secure' design response to provision.



environment. But, do designers want to be associated with the best toilet roll dispenser, the best grab rail, the best wash basin, or are they avoiding these less glamorous components of everyday life? Perhaps one of the biggest challenges for design is the image of the publicly accessible toilet, its association with dirt and unpleasantness, the associated undervaluing of the usefulness of the facility, and the design within that aids dignified and comfortable excretion for all.

## Discussion Questions and Explorations

### *Descriptive*

1. Describe ten features that make a public restroom accessible.
2. What non-toileting behaviors typically take place in public bathrooms? Cite an example of a non-toileting behavior that interferes with the accessibility of the facility.
3. Describe the concept of *affordance* and explain Jo-Anne Richard's examples of the application of affordance.

### *Analytical*

1. Use the facility yourself, and note the following: Did you have to wait in line to use the toilet? What was the condition of the restroom? How clean was it? Did it have a pleasant smell? Was there enough toilet paper? Were you able to wash and dry your hands? How comfortable did you feel using the toilet? Did people talk inside the loo? List three positive and three negative aspects of the experience.
2. Use the toilet again, this time with a closed fist, and opening, closing, and operating the facility with just your elbow. What could you use? What could you not use? Again, list three positive and three negative aspects of the experience.
3. Spend an hour observing people using a publicly accessible toilet facility. Compare the similarities and differences in behaviors between various groups (parents with children, young men, elderly women, a group of teenagers, etc.)? Consider some of the following: amount of time using facilities, hygiene behaviors, grooming behaviors, conversation, and consideration of others.

### *Speculative*

1. Imagine that you are a design anthropologist who is interested in finding out the levels of social comfort of older people who need to use unisex public restrooms. What methods would you use to gather information?
2. How would you redesign the public accessible toilet to be a more socially acceptable and valued space?



3. Design a public toilet of the future to be sited in London in 2040. Keep in mind the increasing diversity of urban users and the changing nature of the city when you develop your proposal.

## Notes

- 1 Loo is an English colloquium for lavatory. The word's origins are not clearly ascertained and believed to come from the French 'regardez l'eau' meaning 'mind the water,' a warning to passers-by in the era prior to sewage systems when the contents of chamber pots were thrown out of windows or as a euphemism for the 'le lieu' the French for 'the place' or a shortening of the word 'Waterloo' which was imprinted on many iron cisterns in the toilets of early twentieth-century Britain. WC is an abbreviation of water closet.
- 2 VivaCity 2020 funded by the Engineering and Physical Sciences Research Council (EPSRC) 2003–2008, [www.vivacity2020.co.uk/](http://www.vivacity2020.co.uk/). TACT3 funded by the New Dynamics of Ageing programme overseen by the Economic and Social Research Council (ESRC) 2009–2012, [www.newdynamics.group.shef.ac.uk/tact3.html](http://www.newdynamics.group.shef.ac.uk/tact3.html). Jo-Anne Bichard (2014) "Extending Architectural Affordance: The Case of the Publicly Accessible Toilet" (University College London, 2014).
- 3 In the United States, 'public restroom' might be more common, whilst in some parts of the UK 'public lavatory' is the preferred term.
- 4 Currently, no one knows how many public toilets there are for the UK population of 63 million.
- 5 Clara Greed, *Inclusive Urban Design: Public Toilets* (London: Routledge, 2003).
- 6 Rob Kitchin and Robin Law, "The Socio-Spatial Construction of (in) Accessible Public Toilets," *Urban Studies* 38, no. 2 (2001).
- 7 Julianne Hanson, Jo-Anne Bichard, and Clara Greed, *The Accessible Toilet Design Resource* (London: University College London (UCL), 2007).
- 8 There are six recommended grab rails in the accessible cubicle, whose height recommendations range from 680mm to 800mm dependent on their position. Height measurements allowed for a discrepancy of 10mm under or over the recommended height.
- 9 Bichard, "Extending Architectural Affordance"; Greed, *Inclusive Urban Design: Public Toilets*; Hanson et al., *The Accessible Toilet Design Resource*; Gail Knight and Jo-Anne Bichard, "Publicly Accessible Toilets: An Inclusive Design Guide," (2011).
- 10 Hanson et al., *The Accessible Toilet Design Resource*.
- 11 The stoma is a surgical opening used to support the colostomy, urostomy, ileostomy technologies.
- 12 See Parkin and Coomber for a detailed discussion on how such measures were not only temporary but also had their own health and safety concerns. Parkin, S. and Coomber, R. "Fluorescent blue lights, injecting drug use and related health risk in public conveniences: Findings from a qualitative study of micro-injecting environments," *Health & Place* (16) (2010), 629–637.
- 13 Colin Cockfield and Kate Moss, "Sex, Drugs and Broken Bowls: Dealing with Problems of Crime Reduction in Public Conveniences," *Safer Communities* 1, no. 2 (2002).
- 14 Knight and Bichard, "Publicly Accessible Toilets: An Inclusive Design Guide".
- 15 British Standard, "7000-6: 2005," *Design Management Systems—Managing Inclusive Design—Guide* (2005).

- 16 R. Coleman, "The Case for Inclusive Design: An Overview" (paper presented at the Proceedings of the 12th Triennial Congress, International Ergonomics Association and the Human Factors Association, Canada, 1994).
- 17 Bichard, "Extending Architectural Affordance."
- 18 J.J. Gibson, *The Ecological Approach to Visual Perception* (Boston, MA: Houghton Mifflin Company, 1979).
- 19 Ibid.
- 20 Ibid.
- 21 William W. Gaver, "Technology Affordances" (paper presented at the Proceedings of the SIGCHI Conference on Human Factors in computing Systems, 1991).
- 22 J. Bichard and R. Gheerawo, "The Designer as Ethnographer: Practical Projects from Industry," *Design Anthropology: Object Culture in the 21st Century* (New York: Springer, 2010).
- 23 This list is by no means exhaustive and does not suggest a frame of one or other but of the possibility of many working together.
- 24 Wendy Gunn and Jared Donovan, "Design Anthropology: An Introduction," in Gunn, W. and Donovan, J. (eds) *Design and Anthropology* (Farnham: Ashgate, 2012), 5.
- 25 T. Ingold, "Introduction: The Perception of the User-Producer," in Gunn, W. and Donovan, J. (eds) *Design and Anthropology* (Farnham: Ashgate, 2012).
- 26 Aberdeen University, Swinburne University of Technology, University College London, University of North Texas, Harvard Graduate School of Design.
- 27 Gunn and Donovan, "Design Anthropology: An Introduction."
- 28 Ibid.
- 29 This consideration includes the anthropology of art, which often focuses on the artifact that maybe considered more 'designed.'
- 30 The working with users within the design process is highly encouraged within design education that incorporates a number of ethnographic-based methods.
- 31 Gunn and Donovan, "Design Anthropology: An Introduction."
- 32 Ibid.
- 33 <http://greatbritishpublictoiletmap.rca.ac.uk/>
- 34 Jo-Anne Bichard and Gail Ramster, "Improving Public Services through Open Data: The Great British Public Toilet Map" (paper presented at the Municipal Engineer Proceedings of the Institute of Civil Engineers 165(ME3), 2012).
- 35 Gunn and Donovan, "Design Anthropology: An Introduction."
- 36 Alexander Kira did draw on these issues in his groundbreaking work *The Bathroom* but his ergonomic work in this area has been more considered then his wider analysis of the contextual considerations for public bathroom design. Kira, A., *The Bathroom: Criteria for Design* (Center for Housing and Environmental Studies at Cornell University, Ithaca, New York, 1976 [1966]).
- 37 Rob Imrie and Peter Hall, *Inclusive Design: Designing and Developing Accessible Environments* (Abingdon: Taylor & Francis, 2003).
- 38 The case of textured paving is one illustration of this. Laid to aid navigation for people with visual impairments, its countenance is that it can make surfaces uneven and difficult to navigate for some users in wheelchairs, and others who use walking aids (IDGO, 2010: Tactile paving design, siting and laying available from [www.idgo.ac.uk/useful\\_resources/publications.htm](http://www.idgo.ac.uk/useful_resources/publications.htm)).
- 39 Kitchin and Law, "The Socio-Spatial Construction of (in) Accessible Public Toilets."
- 40 [www.theguardian.com/commentisfree/2014/feb/17/loneliness-report-bigger-killer-obesity-lonely-people](http://www.theguardian.com/commentisfree/2014/feb/17/loneliness-report-bigger-killer-obesity-lonely-people)