introduction

We have seen, then, how the built environment, as a projection of our social structures, has contributed to alienation and anomie and how this environment marginalises and discriminates against the disabled. The call arising from both my examination of space and of disability is for a more holistic view of design that represents the diversity of users of the built environment and in this chapter I examine the role of legislation and practice in bringing this about.

the Disability Discrimination Act

The case for an inclusive environment has strong moral grounds. The spending power of groups such as the elderly and disabled offers significant enticement for business and there are also legal imperatives to provide such an environment. In October 2004 the third part of the Disability Discrimination Act (DDA) will come into force requiring service providers to provide reasonable access for disabled users. This completes legislation begun in 1996 making it unlawful to treat disabled people less favourably than others for reasons relating to their disability. Within the terms of the act it is the service provided that must be made available implying a consequent change in the physical environment and acknowledging the relationship between culture and the material world.

The act includes all areas of activity, paid for or free of charge, whether they be leisure and recreation or work, education and transport. It does not set standards for building design but requires that 'reasonable provision' be made for access to the service provided¹. By making the service the focus of

¹ Each case will be decided on its own grounds and reasonableness will take into account the nature of any existing building fabric, the activities that go on and more than anything will imply an attitude on the part of the service provider. Thus it would be considered discriminatory not to provide wheelchair access into a cinema or a large print version of a local authority document but it would not necessarily be considered necessary for a night-club to increase its levels of lighting to suit the visually impaired. However many disabled people are worried that the concept of reasonableness will not give the act the powers that the Race and Sex Discrimination Acts have.

provision the act does not just include the physical features of a building but will also relate to staff training and the accessibility of information. The scope of the act is broad and it extends to cover carers with pushchairs as well as those temporarilly impaired with heavy luggage².

New buildings will clearly need to anticipate the requirements of the disabled and although Building Regulations³ impose some minimum requirements they do not cover floor finishes, colour contrast, acoustics or door handle design (Bright & Sawer, p61). Moreover, as Goldsmith (2001) points out access is seen as synonymous with wheelchair use and even then the sizes given largely suit the independent wheelchair rather than the assisted wheelchair user or, say, the mother with a double buggy. Users, including the disabled, have different requirements - at what height do we place a urinal, a washbasin or a seat? Ramps may be difficult to negotiate for the ambulant disabled, textured floor finishes, which assist the visually impaired, may cause pain to others (Lee Harker 8.2) and physical changes to environments do not on their own make them more accessible to those with cognitive impairments.

universal and inclusive design

Definitive requirements, although clearly important in forcing a change in attitudes, tend to encourage the provision of only minimum standards (Goldsmith 2001) whilst making the designer feel resentment at being tied. In seeking to provide an environment that is suitable for all users it is necessary then to extend the parameters of the normal as far as possible to cater for

² This gives each of us a personal understanding of how access is restricted but at the same time the idea that 'we're all disabled' (Williams) suggests disability is a temporary difficulty and diverts attention from the imperative for change to underlying structures.

³ In England and Wales the Building Regulations Part M covers access and facilities for disabled people. The Building Regulations, which are legally enforceable requirements, are based upon Codes of Practice outlined in British Standards. Compliance with these regulations will not necessarily imply the 'reasonable provision' required by the DDA.

the broadest possible range of use. In this way provision for the disabled is not special or separate, highlighted by add on railings or denoted by signage but part of the overall design. Universal design and inclusive design seek to 'understand and respond to the needs of diverse users' (Coleman et al p10) and provide products, environments and services that are of use to the widest possible range of users⁴.

These ideas suggest that designers must both find new ways of expression and accept limits. Rather than walls, floor and fixtures merging together colour contrast may become an important part of a scheme, the significance of an entrance may be denoted in other ways than raising it on steps and toilets in public buildings may become friendly generous spaces welcoming to all including the wheelchair user and parent and child. Part of the difficulty in accepting these ideas lies in the modernist belief that creativity is fettered by limits but as Hagan (p73) argues if the designer is to accept their moral and environmental responsibilities then they must 'explore the possibilities of the new embedded within limits'.

creating an environment structured on diversity

The goal of inclusive design, conscious of difference and diversity, is more than simply access rather it is the creation of an environment that is not structured on the oppression of the disabled or other groups. To do so it must look at the underlying assumptions and theory that generate its form and aesthetic. In our urban environment where we understand place in terms of the social as well as physical environment turning circles for wheelchairs, disabled parking and induction loops are insufficient to provide a genuinely inclusive environment. Street activities like skateboarding, freerunning and flash-mobbing challenge the ability of the environment to dominate the individual. Sennett



automatic doors are of benfit to all not iust the disabled



⁴ All my interviews suggested this environment was both desirable and not beyond the reach of thoughtful design. Lee Harker's suggestion that 'You just need to be mindful' (8.2) summing it up. The mindfulness coming from thought, experience and listening to others.

acknowledges this as the potential reality of the city which rather than reflecting the perfect body, is contradictory and fragmented, 'dignifying different bodies' (1994 p23) and the natural home of diversity. Jacobs (p39-122) celebrates this diversity in her description of the safe streets of a thriving community which are filled with a variety of activities generated by a cultural mix and where each individual has their role and community significance.

new vibrant space

Diversity and inclusiveness might thus hold the key to the regeneration of bustling vibrant urban spaces which celebrate the transforming nature of bodies in space. As Tschumi (p123) proclaims 'the fluidity and erratic motion of bodies underpins the possibilities of new and unexpected spaces being constituted in ways never anticipated by the architect'. Echoing this



architect Will Alsop says 'calculated uncertainty is recognised by an increasing number of architects as a major function of architecture' (Gooding p77). Alsop develops the idea of activity as the generator of architecture and, remodelling the modernist axiom, suggests 'function follows behaviour' (Gooding p 20) acknowledging that function is not a given part of an artefact but is 'in itself part of society and culture'

(Latour p6). The street as Latour suggests will always find a use for things, which although it may not be that intended by designers, does potentially exist as affordances (Gibson) for the artefact. However designs which rely on such potential to provide a 'matrix of opportunity' (Gooding p54) do not in the case of Alsop's Cardiff Docks Visitor Centre with its minimalist metal steps which visually merge into one and its ramp that is too steep for wheelchairs (Imrie 1996 p22) do so for all.

adaptable spaces

The semi-sheltered space between office buildings and the street has given rise to a new urban space denoted by a pile of butt ends and a self-conscious lunchtime huddle. But other places and objects adapt more comfortably to changing use and retain a relevance whatever the function so that in Fred Baier's terms form might indeed 'swallow function' (Baier p8). Being so closely related to the human body and human activity furniture must necessarily accommodate a wide range of uses and Sarah Wigglesworth seizes on this adaptability to construct the dining table as a paradigm of domestic architecture. Alsop, similarly, suggests the empty table top is a 'plane of social discourse' (Gooding p21), its use determined by the relationships of those gathered around it and what they do at it, transformed, as Tschumi's space, by activity. Such ideas offer an analogy for those that I want my furniture to reflect but assumptions about the height of the table top, its colour, the narrowness of the area around it and the fact that people already gathered at it are sat on conventional chairs suggest the potential difficulty of such a model.

a democratic theory

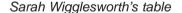
If the form of the table (and its environment) is predicated on the underlying (ablist) structures of society the idea of the domestic object, owned and understood by most members of society, which it embodies might be more useful in developing a theory. It removes the architect/designer from the position of

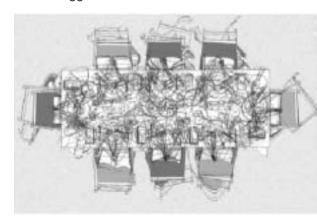


raised above the ground Alsop's Cardiff Docks Visitor Centre requires steps and a ramp for access



the 'smoking space' outside public buildings





expertise supported by scientific rationalism, the use of standard ergonomic data and the dominance of engineered form and empowers individuals, communities and groups. Truly inclusive design 'can only come about by engagement in discussion within and between discursive communities recognising, valuing, listening' (Imrie 1996 p171).

Consultation has become an integral part of many projects and is used not only to direct schemes and engender a sense of involvement and participation but also to build and empower communities. It can take many forms from questionnaire and public meeting to the designer living and working within the community. The difficulty of designing for communities that do not exist can be overcome by field research, consulting representative user groups and constructing possible uses by storytelling (Till and Wigglesworth).

The schemes of the art and architecture practice muf are characterised by research not just into the physical environment but its social make up and they document histories, stories and aspirations. The fragments of the oversized patterned dinner plates which make up their two benches in Stoke on Trent were made with the workforce of Armitage Shanks in order to reveal Stoke as 'the place where the hands of the person you sit next to on the bus or pass on the street are the hands of the person who shaped the plate from which you eat your dinner' (Shonfield et al, p92).





invitational space

Whilst many aspects of contemporary architecture and design demand specific environments and solutions to problems alongside this, and perhaps as a reaction to it, there has been a move to more flexible design⁵. Themes of adaptability and flexible use, which both reflect and project contemporary lifestyles, seem almost an essential characteristic of much contemporary architecture and design. The notion of flexibility has given rise to languages of approach and form and by embodying these typologies design is actively attempting to acknowledge and participate in the inevitability of uncertainty.

But further and more pragmatically this *provision* for uncertain use and participation in more open design might lead to greater access. The designer is no longer a co-ordinator of society and provider of solutions but seeking to 'create a catalyst around which activities can occur' (Lawson p224). The vernacular form which has not only evolved through but adapts to use is seen by many as a model for such a responsive environment⁶. It is this very process of

the typology of flexible (but not necessarily accessible) seating is developed from the freedom of use epitomised by the 'beanbag'

⁵ The 1997 Crafts Council Exhibition *Flexible Furniture* identified a self-conscious trend towards the design of flexible furniture which can be clearly seen in much craft and production furniture today. ⁶ The implications of variety, twisting streets and changing texture must be considered carefully for as my day out with Lee Harker (8.2) showed so poignantly broad, level and even surfaces, questioned in the last chapter, are much easier to navigate.



organic development, which contemporary design does not have the time to repeat, that it tries to mimic by designed flexibility⁷ and adaptability acknowledging that 'simple events can give rise to complex chaotic effects that have an indirect or non-linear relation to their source' (Hagan p169).

conclusion

The design of the built environment offers the opportunity to both respond to and change the context within which it exists. Universal design can be criticised as an ethos without a structured approach but if design is genuinely inclusive we might certainly expect a different environment - welcoming staff able to use sign language and assist users, gentle ramps rather than steps, colour contrast rather than minimalism. Encouraged by legislation a change may indeed come about in the social structure of our environment and form may cease to be regarded as more important than use⁸. Designers might then consider how environments feel to disabled people and how these feelings interconnect with their bodies and experience of mobility(Imrie 1999 p40).

⁷ Bustling street activities, stalls, cafés and temporary seating can make the environment difficult to navigate for the disabled and particularly the visually impaired (8.1).

⁸ Architects like Jeremy Till encourage us to move away from judging architecture by form and appearance suggesting that 'how architects and designers allow us to use their structures' (Moss 2003) is more meaningful than aesthetic judgements