

THE PHYSICAL ENVIRONMENT OF THE MENTALLY HANDICAPPED

XIII—PERSONAL SPACE: ARCHITECTURAL MODIFICATION IN AN INSTITUTION FOR THE MENTALLY RETARDED*

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The thirteenth article in this series presents a proposal which has not been implemented yet. The client population being considered was composed of severely and profoundly retarded individuals.

The designer's background is unusual and may well help in opening up new perspectives in the field of mental handicap. Dr. Orleans obtained a Ph.D. in Sociology, taught as an Associate Professor in the School of Architecture and Urban Planning at UCLA, and subsequently qualified as an architect. The firm he has joined is engaged in assisting the Division for Developmental Disabilities of the Colorado State Department of Institutions in the development of a comprehensive short term plan, to de-institutionalise large numbers of mentally retarded persons as well as to normalise those institutional facilities that are retained. Dr. Orleans is now planner-coordinator for a senior citizens' group to attempt delivery supportive health services to elderly people in an inner city neighbourhood.—The Editor.

Professionals in the field seem increasingly to agree that the de-institutionalisation of as many of the mentally retarded as possible should be accomplished as soon as possible. This view is bolstered by the conviction that habilitation (Kushlick, 1975) of mentally retarded people can best be accomplished through the process of normalisation (Nirje, 1969). In its essentials this process of normalisation, based on the Scandinavian model, entails de-institutionalisation because it seems to require changes in daily life that are so drastic and so comprehensive as to be possible only in non-institutional settings. However, the reality of the situation is that the candidates for normalisation, in so far as it involves de-institutionalisation, are most often likely to be persons capable of functioning in and being accepted by the larger community, persons now classified as borderline or mildly retarded. Even if moderately retarded persons were to be included, this would still leave approximately half of the institutionalised population behind, namely those who are either severely or profoundly retarded (Butterfield, 1969).

An "Institutional Problem"

It is this latter population that was the focus of attention in this project. Recognising that even with the success of current efforts to de-institutionalise large numbers of clients, many would still remain in institutional settings, the Division for Developmental Disabilities of the State Department of Institutions sought to explore ways in which institutional residential environments could be altered to facilitate

*An earlier paper concerned with the architectural programming involved in this project, "Design for Normalisation in an Institution for the Mentally Retarded," was presented at the 7th annual meeting of the Environmental Design and Research Association, Vancouver, B.C., Canada, in May, 1976.

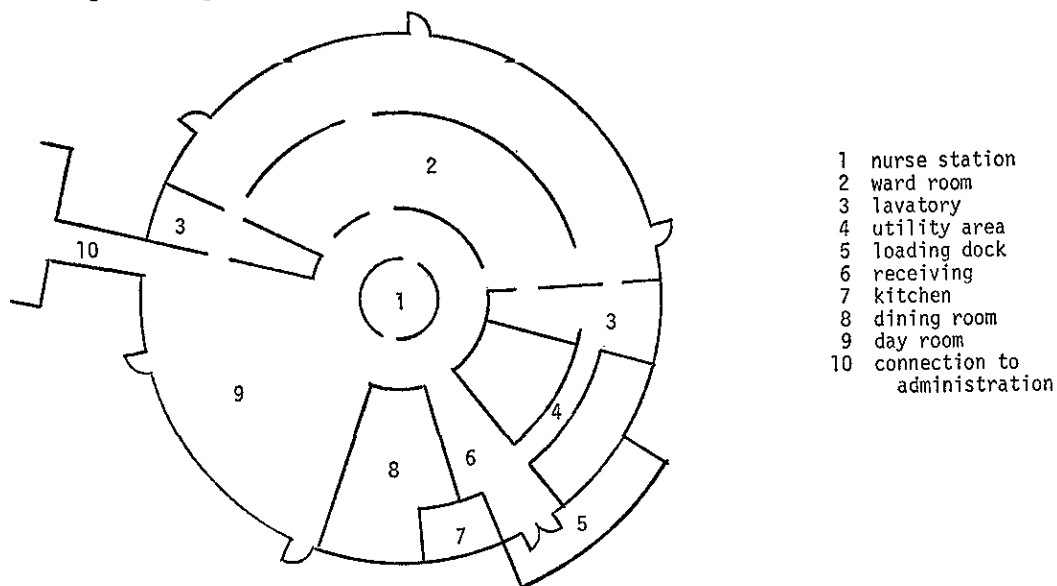
normalisation. The setting chosen for experimental revision was the residential environment of the Upper Rounds at the State Home and Training School in Wheatridge, Colorado. The six units involved house 214 clients, all of whom are classified as being either severely or profoundly retarded. They are the clients who are most in need of intensive attention and who at the same time are thought to be least likely to be responsive to such attention. All of them will probably live out their entire lives within the confines of the State Home and Training School.

The author was asked to suggest architectural modifications that could be made to the physical facilities in the Upper Rounds of the State Home and Training School that would contribute to normalisation. There is ample evidence that the original design of this facility, intentionally or not, was based on a custodial mode. What is so dehumanising about the Upper Rounds is precisely what has been designed into them to facilitate the ease of custodial care—that they are abuse-resistant, that inmate activity is under complete and constant surveillance, that inmate access to control of the environment has been minimised, that “keepers” are physically separated from the “kept,” that environmental stimuli and amenities are kept to a minimum (Wolfensberger, 1969).

As Figure 1 indicates, each unit is circular in physical form, with a glass enclosed nurse’s station at the centre. The unit is partitioned into a day room, ward room, service (i.e., laundry, kitchen, storage, etc.) and toilet areas. All exposed surfaces are made of structural glazed tile, light switches are keyed, and the floor is radiant heated with a supplementary perimeter heating system. Alter any of these conditions and the problem of aggregate custodial care is immediately and significantly complicated. Accordingly, appropriate institutional programmatic changes should ideally precede, anticipate and subsequently require, supportive architectural alteration. If this is not the case, then it inevitably follows that the conditions under which client care occurs will become more difficult, the level of care itself will decline, and the client will suffer.

FIGURE 1

Original floor plan, Upper Rounds, State Home and Training School, Wheatridge, Colorado.....



An "Operational Philosophy"

Given a commitment to making life for the institutionalised client as normal as possible, the definition of a normal way of life must be relevant to and supportive of the client, with due consideration being given to his handicap. A normal way of life should be constructed with attention to the benefits, the positive effects, it might have on the client. The architecture of most ordinary houses, with some exceptions, does not force a standard of living on the occupants. People introduce the standard with their choice and arrangement of furniture, their interests and activity preferences. Although some adaptation inevitably occurs, by and large it is people who make the dwellings fit their needs, and not the other way around (Gunzburg and Gunzburg, 1973). Institutionalised mentally retarded people are not often in a position to do this, and it is even more important therefore to create a residential environment for them which suggests, stimulates and encourages a way of life which is of benefit to them. Ultimately such an environment will benefit the institutional staff attendant as well.

This means that the environment to be created must contain a wealth of elements to help the client meet his emotional and physical needs and to support the aim of socialisation. In order to achieve this, however, the environment must be on a plane which can be understood by the client enough to encourage him to manipulate it.

There seem to be three demand areas for which the right elements, the right combination of elements, the right application and the right character of elements have to be found:

- a. For supporting the creation of a feeling of physical comfort, a sense of security and personal relationship to the surroundings.
- b. For inducing normal stimulation, awareness, normal action, simple normal reaction, normal choice and normal routine, thus making the person accessible to teaching and training.
- c. For teaching and training relevant to eventually leading a satisfying and useful life (Gunzburg and Gunzburg, 1973).

It follows then that an architectural programme based on the principle of normalisation should derive its design directives from these requirements.

If the design strategy is to be one of providing an environment within which normal behaviour can occur, and can therefore be learned through experience (through repetition and a little bit at a time under the aegis of a supportive institutional staff and programme), one must consider: What is normal? What is the community standard that is to be approximated? What are the special environmental requirements of the client that must be satisfied if normalisation is to be accomplished? Provision of a normal environment for the mentally retarded person does not automatically result in normal behaviour, because he is apparently constitutionally incapable of such behaviour independently. It is not as though the abnormal behaviour is itself a product of environmental deprivation (though such deprivation undoubtedly exaggerates the problem), and that therefore it can be modified simply through environmental enrichment.

A normal person lacking the opportunity to modify his environment—for example, an office worker who cannot control the lighting and ventilation in his office—if given the opportunity to do so will do so. Given a desk lamp, he can switch it on or off, or given an operable window, he is capable of opening and closing it. The mentally retarded person, however, lacking the opportunity to alter his en-

vironment in an institutional setting, when given that opportunity must first learn the **mechanics** involved in such manipulation (how to switch a light, how to operate a window) as well as its consequences, its costs and benefits with respect to his comfort—which is to say he must also learn the **motivation** necessary to consider such manipulation worth the effort (Gunzburg and Gunzburg, 1973).

In other words, the client must be socialised to appropriate normal behaviour that is within his potential capability, and this socialisation ought to occur within a supportive context, with sympathetic attendant assistance, and within a physical environment so constructed as to maximise opportunities for learning not only to manipulate the environment, but the mechanics that make it possible for him to do so.

A Possible Solution

Through discussions with the staff of the Upper Rounds, through observations in the setting itself, as well as through a review of the available literature on the subject of normalisation, this writer was able to translate the programme requirements into an appropriate design. Emphasis in the design was placed more on creating individuated and small scale spaces within the existing ward room and day room than on overall revision of the facility. Emphasis also was placed on creating an environment that could be altered by the residents themselves. This amounted to a substantial departure from the existing, largely custodial character, of the environment.

FIGURE 2

Cutaway view of a model showing bed and storage units for the proposed wall panel and frame system designed to normalise the Upper Rounds wards at the State Home and Training School, Wheatridge, Colorado.

Note window panel at far right; storage under the bed.

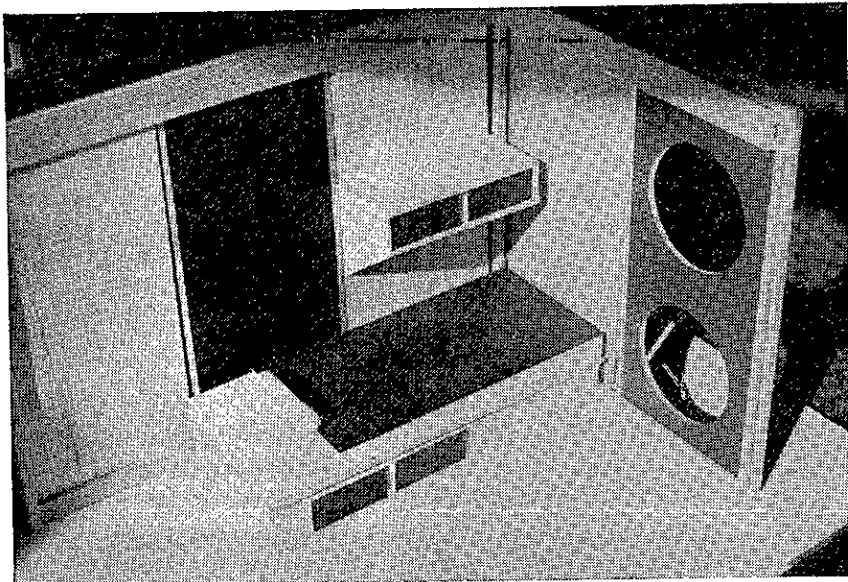
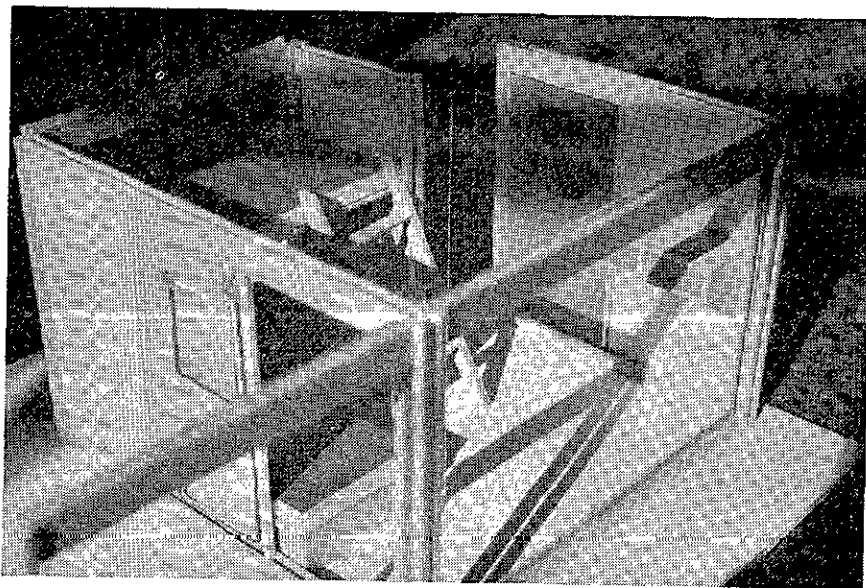


FIGURE 3

Model of one of several options for an individualised two-person room constructed from components of the proposed wall panel and frame system designed to normalise the Upper Rounds wards at the State Home and Training School, Wheatridge, Colorado. Note framing and cutaway of electrical panel at the far left; optional bunk bed arrangement.



Room-sized modules built up out of a prefabricated and flexible wall panel and frame system were designed. A model of a typical unit is illustrated in Figures 2 and 3. This design facilitates the provision of spaces of varying sizes to accommodate single, double and four-person occupancy. In addition individualised room layout and decor is possible through individually determined combinations and arrangements of the wall panels. In this manner bunk beds can be provided for residents who can negotiate and who prefer them. The inclusion and location of a variety of amenities (e.g., windows, clothing storage, shelving, tackboard and mirror) can be individually determined.

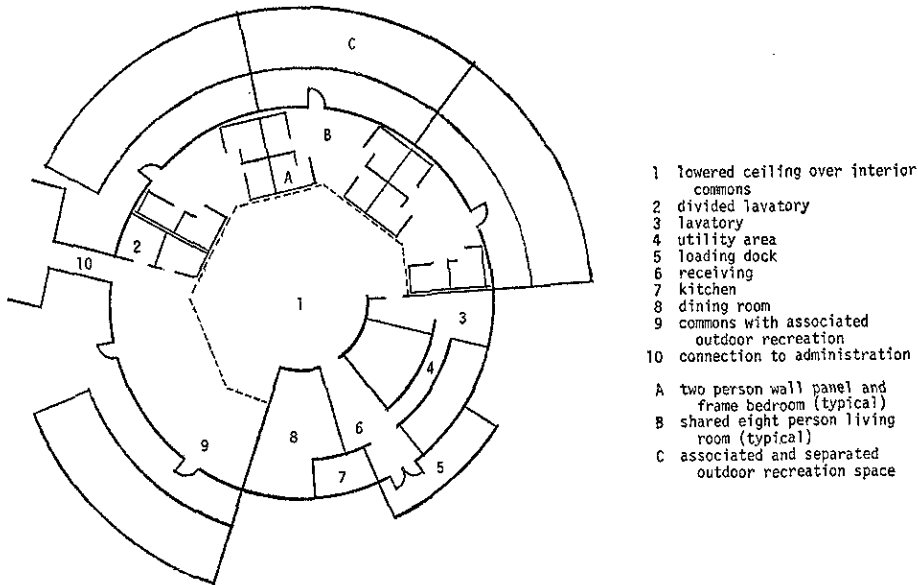
The possibility of having individually manipulable environmental controls is provided through the use of an electrical wall panel. The panel includes a built-in light and switch along with an electrical outlet to accommodate a clock, perhaps a radio, or any of a number of small electrical appliances. All of the critical height, reach and clearance dimensions of the wall panel amenities were designed to accommodate the anthropometric requirements of semi-ambulant wheelchair users (Goldsmith, 1967).

These room-sized modules were designed so that they could be arranged in configurations which would: (a) create graduated scale spaces—one, two or four person “bedrooms” adjacent to eight person “living rooms” associated with a larger, but separated, unit “day room,” and (b) immediate access to an outside space definable as the domain of a group of eight residents. These relationships are illustrated in Figure 4.

Other aspects of the suggested modifications involved programme-related changes, including: (a) 24-hour supervised access to the unit kitchen, and (b) resident participation in the weekly distribution and storage of laundered clothing and linen. In addition, architectural alteration of the existing gang toileting facilities (e.g., breaking them up into smaller and more distributed washrooms with partition separated toilets to enable toileting privacy) was proposed.

FIGURE 4

Modified floor plan, Upper Rounds, State Home and Training School, Wheatridge, Colorado.



Conclusion

This particular project involved the re-design of a specific institutional facility. The assumption from the outset was that the Upper Rounds, designed and built some ten years earlier as residences, albeit as residences cast in the custodial mode, could be retained as residences and modified to meet contemporary standards *vis á vis* normalisation. It is apparent that recommended alterations are both possible and relatively inexpensive, and that they would substantially alter the quality of the residents' lives as well as their opportunities for development. This is especially the case if changes in the physical surround are supported in institutional programme changes.

What is less clear is whether these buildings are most appropriately used, even now, as client residences, or whether they might more reasonably be considered as sites for one or another of the vocational training or physical therapy programmes offered by the Division for Developmental Disabilities in its use of the State Home and Training School as a regional centre. The Upper Rounds are, in their physical organisation, similar to public school buildings of the period. As such they strongly suggest an appropriate re-cycled use as settings in which such programmes could be housed. In as much as the charge to the writer was to consider ways in which they could be modified inexpensively to provide improved housing, and particularly normalisation within an institutional setting, this alternative was not addressed.

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