A Psychological Perspective on the New Design Concepts for William Head Institution (British Columbia)

In the spring of 1989, the Construction Policy and Services Division of the Correctional Service of Canada adopted a new set of design concepts for correctional facilities that would guide the rebuilding of the new housing units at William Head Institution in British Columbia.(1) The housing construction will begin during the summer of 1991 and will be completed in approximately one year. William Head will then stand as the first correctional institution of its type to be built in Canada. The new design concepts reflect prosocial values that are intended to be achieved through the "normalization" of the institutional environment and through the establishment of a more positive dynamic between offenders and correctional staff This article reviews the considerable psychological and social science literature on the impact of environments, which shows consistent empirical support for the design concepts embodied in the construction of the new housing units at William Head Institution. "Rebuilding" William Head Institution A poorly designed physical environment can frustrate human relationships and well-being. Conversely, a more "human" design can set the stage for positive interaction and improve well-being.

William Head will represent the first major correctional facility to be designed using, as guiding principles, the core values of the Correctional Service of Canada's Mission Document. The underlying concept is that the new institution should reflect a **residential** environment and eschew the more traditional features of a jail.

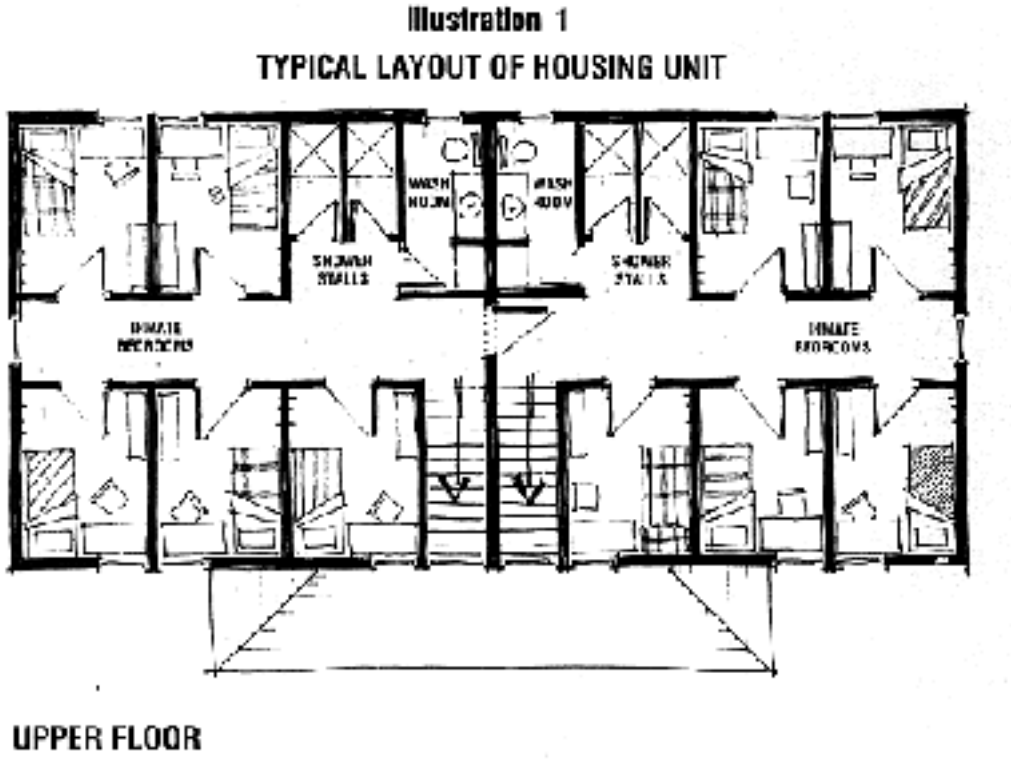
A residential hierarchy is planned, which begins with the inmate's **room** (most private, individual space) contained within a five- or six-person **house** (semi-private, family space) which exists in a **neighbourhood** (semipublic, small group interaction) of houses along with a multifaceted, multi-use (i.e., programming, laundry, staff offices, recreation) centre for each neighbourhood. The most public level is that of the institutional **community**, made up of the sum of the neighbourhoods.(2) In all, 240 inmates will be accommodated, with five per house and eight houses per neighbourhood within the community. The purpose of this layout is to foster a sense of community and provide more opportunities for personal growth and development.

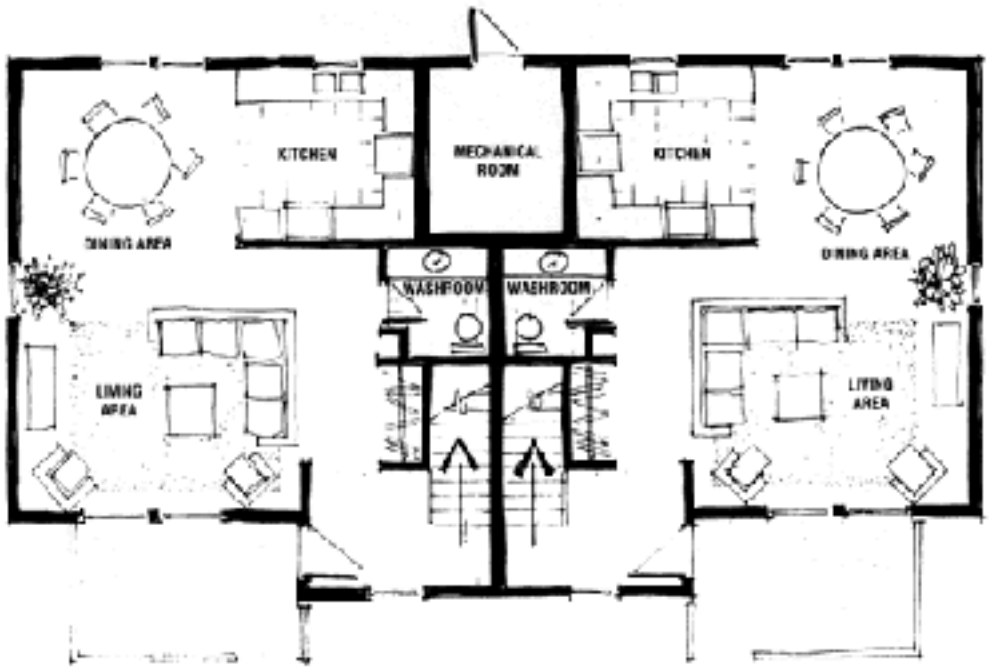
In keeping with this residential model, uniquely coloured neighbour-hoods with their own names or addresses will promote a sense of identity. Perhaps the most important feature of the new William Head, one that sets it apart from more traditionally designed institutions, is the level of personal responsibility afforded the offenders. Inmates in the new institution will take on more of the responsibilities (e.g., cooking, cleaning) associated with residential living. Building Design The design for inmate housing provides for two-storey duplex-type houses -each half of the duplex will house five inmates. The bedrooms will all be located on the second floor and are designed for private, single occupancy. Each room will contain a bed, a desk, a chair and a closet. Since these rooms will be the inmate's most private space, furniture arrangements and decoration will be left to the discretion of the individual. The rooms will not contain a washroom - one washroom will be shared by the five housemates, but it will be for single occupancy only.

The first floor of each house will include a common living/dining area, complete kitchen facilities, a washroom, a storage room and a deck outdoors. As mentioned previously, the inmates will be responsible for their own cooking and cleaning, in keeping with the residential living philosophy.

To maintain the residential character, there will be no bars on windows or doors and no dedicated guard post. In fact, the houses will have no containment capability. A connecting door will allow staff access from one half of the duplex to the other for bed checks and the like. For the most part, however, staff will not be present in the houses but will operate instead from the neighbourhood centre. The typical house design is shown in Illustration 1.

Illustration 1





GROUND FLOOR

WMCG AND HAMILTON ARCHITECTS, VICTORIA, BRITISH COLUMBIA

The six neighbourhoods (made up of eight houses each) will have a shared central neighbourhood building. These single-storey, multipurpose structures will provide a large recreation area (with television and card and pool tables), laundry facilities, meeting rooms, unit management offices and programming space. As in the residences, there will be no bars or heavy security. Furthermore, residential-style materials, finishes and street furnishings will be used throughout. Building Layout Each neighbourhood will use a slightly different arrangement of its eight houses and centre, giving it a visually distinct, "village" character. Each neighbourhood will have an open, central courtyard, and open walkways will join the neighbourhoods. Illustration 2 depicts the layout for the neighbourhood centre.

The perimeter security fence that already surrounds one part of William Read will be left in place - the other sides are surrounded by water. In accordance with the new residential philosophy, a strong perimeter will be maintained while internally easing restrictions on inmate movement and activity. Perceptual Factors Thermal Comfort Inmates and correctional staff commonly complain of thermal discomfort - too hot, too cold, stuffy, drafty - in their facilities. Because the proposed design of William Head is less sealed up than other institutional designs, thermal discomfort should be alleviated. Also, the separate living facilities will probably have separate climate controls. If this is the case, it is suggested that inmates be allowed to control their own thermostat as in a normal, residential environment. Colour and Light Colour schemes for the new William Head have not yet been chosen, although there are relevant data available. Wener and Clark,(3) for example, report that inmates tend to prefer bright colours and murals, and Goldblatt(4) noted positive effects when inmates were allowed to paint their own murals.

Different colour schemes will be used to distinguish neighbourhoods at William Head. From a psychological perspective, this is a positive step that should enhance the inmates' sense of identity or belonging to a certain neighbourhood.

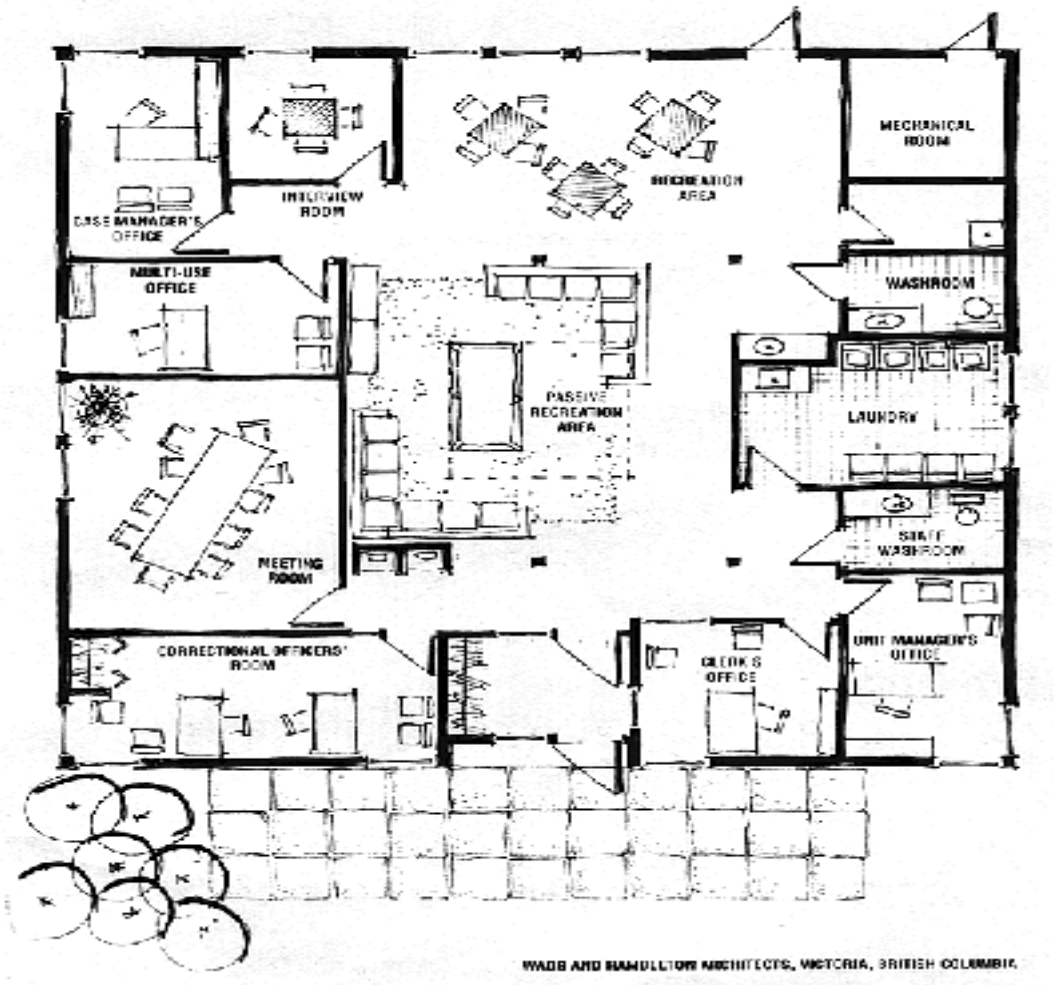
Since there will be neither bars nor security screens over the windows, inmates will have plenty of natural light and an unobstructed view out-of-doors. Although no empirical research has been done on windows and natural lighting in a correctional environment, studies on settings such as schools and hospitals indicate that windowless environments are not perceived to be as pleasant as those with windows.(5) In some cases (e.g., hospital rooms), lack of natural light has been correlated with increased stress and even depression.(6) These findings would probably hold true in correctional settings, as almost anyone who has ever seen a windowless cell might conclude. Indeed, as early as the 1920s, the Pennsylvania-style (windows in cells) prison design was gaining favour over the Auburn-style designs (windows in outer corridors opposite cell doors) largely because of the pleasant and more humane atmosphere created by windows.(7) Noise, Texture and Fixtures These seemingly disparate features will be considered jointly because, as shall be seen, the texture of surfaces within an institution and the nature of the hardware or fixtures used have a bearing on the extent and type of noise present. For this discussion, noise is simply defined as unwanted sound.

Richard Wener of the United States Bureau of Prisons has noted that noise is a persistent problem within correctional settings, especially the older, or more institutional-like designs. In general, it has been found that noise invades privacy, deters concentration, disturbs sleep and induces stress.(8) Moore(9) has even reported that the level of noise in an institution correlates with inmate health complaints. For anyone who has ever visited or worked in an older institution, these findings will not come as a surprise. The metal-on-metal din (gates opening and closing, lock bolts snapping and metal doors shutting) along with inmate-produced noise (walking, talking, yelling, radios and televisions) is virtually incessant. Hard surfaces, such as tiled floors which are commonplace among correctional institutions, contribute to the problem in that they reflect rather than absorb noise.

Illustration 2

Illustration 2

TYPICAL LAYOUT OF NEIGHBOURHOOD CENTRE



WADE AND BANDLUTOW ARCHITECTS, VICTORIA, BRITISH COLUMBIA

Fortunately, the recent trend has been to "soften" correctional environments. There is greater use of sound-deadening materials like carpet and acoustic tiles. Metal-on-metal contacts have also been avoided or limited, and television and radio noise has been reduced by isolating or dispersing audio sources. The plans for the new William Head will incorporate these and other features to reduce the bothersome noise of correctional environments.

The use of softer material and furnishings may have a positive impact on other areas than just noise reduction. For example, a study by Chaiken, Derlega and Miller[10] found that people discussed private matters more openly in "soft" settings (with rugs, wall decorations, cushioned chairs) than in "hard" ones (with bare floors and walls, hard chairs). This suggests that the non-institutional environment planned for William Head will enhance social relationships in line with the purpose of the proposed rebuilding.

The most salient characteristic of the rebuilt William Head may be its residential design which will help circumvent the noise so characteristic of correctional environments. The problems associated with clanging cell doors or the hubbub of 40 or 50 inmates in a living unit will simply disappear because there will be no cell doors to slam, and only five or six inmates will live in any one housing unit. Thus, the noise level at William Head will be much less noxious and stress-inducing, and likely closer to the level of a normal residential environment. Social and Psychological Factors Crowding Crowding in correctional facilities has increasingly become a serious issue. Any modifications made to William Head will have to address this issue.

Perhaps the most relevant impact of crowding on an institution is the impact on social relations and interaction. Empirical findings indicate that high-density situations generally result in negative social outcomes. For example, in crowded (high density) situations, there is more aggression and competition for resources, less cooperation and more social withdrawal. Other individuals in a crowded situation are perceived as less attractive or interesting, and the social milieu itself becomes unpleasant.[11]

It has been demonstrated that social withdrawal in response to high density (or crowding) manifests itself in various ways. Adopting a defensive or guarded attitude[12] is one method of withdrawing, which by its nature decreases the quality of social interaction. Similarly, topics that dominate conversation in crowded settings are less personal or self-relevant, even among well-acquainted people.[13]

Although research that directly compares social relations in high- and low-density correctional institutions has yet to be done, a parallel may be found in a study by Reichner,[14] comparing two types of university dormitories. Students in a corridor-design (high density) and in a suite-type dormitory (low density) were compared in their reactions to being ignored in a social conversation. Reichner found that the students who lived in the low-density suites were more adverse to being ignored, while those in the corridor-type high-density setting were less bothered. These findings indicate that the high-density corridor housing existing in many traditional institutions does little to foster positive social relationships, while the proposed design for William Head's rebuilding should enhance positive interaction among and between offenders and staff.

Additional data indicate that pro-social behaviour occurs more frequently within moderate- to low-density situations. Latane and Darley[15] conducted a classic series of experiments, generally referred to as "bystander-effects studies," wherein an experimental confederate acts as if he or she needed help of some kind - for example, by faking a heart attack or appearing to need help fixing a flat tire. Using the "lost letter" technique (wherein "lost" letters are actually dropped by the researcher and addressed to his/her lab), Bickman and his colleagues[16] found that "lost" letters were mailed more often when found in low-density dorms than in crowded ones. And Jorgensen and Dukes[17] reported that people in a cafeteria followed posted instructions to return their trays to a pick-up point, and in general cleaned up after themselves more, when the cafeteria had few people in it, compared to when the cafeteria was crowded. A uniform finding from "bystander" studies is that people are much more likely to help others in low-density situations.

Aggression and violence are another area of study that relates to crowding, one that is a constant concern in correctional institutions. Not surprisingly, the general finding from social and environmental psychology research is that conditions of high population density tend to bring about aggression and violent acts; this holds true for inmates, non-inmates and even children.[18] While males tend to cope well enough with short-term exposure to crowded situations, the same cannot be said of longer-term exposure to high density. This notion is particularly salient in the context of corrections because long-term high-density living is precisely the situation in which many offenders are placed.

The researchers Cox, Paulus and McCain[19] have, in fact, closely tracked fluctuations in population

density and rates of violence in several prisons in the United States. Even when such non-density factors as time of year and temperature are accounted for, significant correlations are found between increases in density and incidence of violent acts, such as assaults. These findings strongly suggest that if prison violence is to be reduced, limitations on population density should be given serious attention in the design of any new institution.

A further point, one which relates both to crowding and aggression, is a simple economic fact of high-density situations: there is stiffer competition for limited resources. In the correctional context, resources may include any number of things, such as washroom availability, library books, television-lounge seating, recreational materials -virtually anything an inmate might conceivably need to use. The pinch that crowding creates on the availability of resources has twofold consequences. One is the frustration or unpleasantness of being limited or denied a resource, and the other is the fact that competition and conflict over limited resources often lead to aggression and violence. Coping with Crowding Tying all the social effects of crowding together are the related notions of coping and control. High-density incarceration is stressful and generally negative, and can bring about a sense of helplessness among inmates.(20) Inmates spontaneously seek out or enact various coping behaviours, some of which may be more positive than others. Social withdrawal, for example, may be one way of coping with the stress of crowding - one that is completely at odds with the prosocial objectives of the Mission Document. Escape is another strategy typical of individuals subjected to high density. When the stress associated with high density becomes intense enough, an individual will simply leave. Obviously, escape as a coping strategy is unacceptable in a correctional situation.

Inmate surveillance and external control issues have been the foremost concerns in traditional institutional designs. New design concepts, such as those being implemented at William Head Institution, emphasize inmate responsibility and internal or social spheres of control. The new correctional environments will afford inmates a freer range of behaviours, including "escape," and greater perceived control. Unlike previous and more traditional designs, the new institutional concepts will stress the importance of social relations but also allow a degree of privacy unavailable in earlier designs. In line with the philosophy behind new institutional designs, the inmate will now be afforded commonplace controls and coping behaviours (e.g., "escaping" to the privacy of one's own space) that are typical of normal residential environments. Privacy Privacy, generally defined as the control of access to self, is typically lacking in older-style institutions. Seeking privacy serves an important psychological function and is something taken for granted by those who are not incarcerated. Much social scientific research has focused on privacy, and some of this is relevant to the new ideas in institutional design.

An important feature of the William Head design is the private bedroom for each inmate. Inmates will be allowed to decorate and arrange their rooms and furthermore, they will have keys to their rooms allowing control over access to their private space, as in a residential environment. Of course, correctional staff will have a master key, but this will not allow staff to lock inmates in their rooms.

The empirical basis for this type of inmate housing is straightforward, with the general finding that control and privacy are important to most inmates. For example, Smith(21) studied groups of prisoners who were moved from a four-person-to-a-cell facility to a new facility where each had his or her own cell. A significant relationship was found between privacy and the amount of control inmates felt they

had in their lives. The inmates at the old facility who most valued privacy felt that they had had the least control over their lives when there. At the newer, more private facility, the more the inmates valued privacy, the more control they felt they had.

McCain, Cox and Paulus[22] compared all the various types of inmate housing - single, double, multiple-occupant, open dormitory, segmented dormitory - using a number of measures of well-being, such as reported stress and acts of aggression. Their results showed a linear relationship between the level of privacy afforded (i.e., number of inmates housed together) and the number of positive effects: less negative effects were noted for the most private (single-bed) situations. This study, as well as a study by Wener and Olsen,[23] also found increased health complaints among inmates in multiple-housing when compared to those in single-occupancy accommodation. Similarly, d'Atri[24] found higher reported stress levels and higher recorded blood pressure among inmates housed collectively.

The effects of crowding and privacy do not appear to be attributable to the amount of space afforded each inmate. Interestingly, there appears to be no correlation between the amount of space (i.e., spatial density) given an inmate and increases in any measure of well-being. Moreover, inmates housed singly tend to fare the best in spite of the fact that they typically have the least space in square feet. From a design perspective, this finding is quite useful in that it suggests a need not for more and more room for inmates, but rather for small or moderate amounts of room with some degree of privacy.

While in many cases it may be experimentally difficult to tease apart the independent effects of crowding and privacy on well-being, the overall picture is clear: increased crowding and lack of privacy act, sometimes together and sometimes independently, to create an unpleasant, stressful and potentially dangerous environment. The recently proposed plans for the new William Head Institution, with their focus on housing designed to encourage positive social interaction while respecting the need for privacy, show considerable empirical precedent. Territoriality Although territorial behaviour is frequently observed in correctional settings - for example, bikers or some ethnic or racial group habitually occupying a certain area of a cafeteria -several problems arise in relating this to the new institutional designs. First, relatively little empirical research has been done in the field, and what has been done tends to focus on such general theoretical issues as territorial control or dominance, marking or personalization behaviours and so forth. Questions typically addressed are "Why do humans mark off territory and how do they do it?" or "What are the evolutionary antecedents of human territoriality?" Aside from research concerned with making neighbourhoods "defensible" against crime, little of this work has been guided by potentially practical applications.

We have already noted that territorial behaviours are commonplace in correctional settings. In fact, territorial behaviour is universal and occurs on the street, in the neighbourhood and basically anywhere that groups of people are found.[25] So if the aim of the new institutional design is to create a "normalized" or residential environment, then it is likely that normal, or residential, territoriality will result. Here, it is argued that it is probably inappropriate to ask such questions as "How can we increase/decrease territoriality?" in the same manner that crowding was approached, but rather "How might we foster the positive or normal aspects of territoriality?" Despite the lack of data, it would be reasonable to suggest that the construction of a more normal environment such as the one envisioned for

William Head Institution might achieve this end. Concluding Remarks Perhaps the best way to judge a human environment is by the well-being of the users of that environment. In the case of a correctional institution where an inmate must live 24 hours a day, often for several years or more, creating a humane environment becomes especially important. This, of course, is not to suggest that older institutional designs (or even the more recent popular designs) are necessarily inhumane, but rather, to note that they had different principles guiding how they were to be built and operated. For instance, surveillance and control were the foremost concerns in earlier designs, while today the prosocial values of the Mission Document provide the guiding principles for institutional design. Given the data, all evidence seems to point to the conclusion that an institution possessing the features planned for William Head will provide inmates with a more normal environment where basic needs and human social relations are emphasized. It can also be concluded that this new design is in accordance with many empirically established requisites for human well-being.

Joseph Johnston is a research officer in the Research and Statistics Branch of the Correctional Service of Canada. He is currently working on his Ph.D. in psychology at Carleton University.

(1)*The buildings at William Head will embody only part of the new design concept developed by the Construction Policy and Services Division. A substantial portion of William Head Institution was already in existence, and so only part of the design concept - that dealing with housing units - could be used to guide new construction.*

(2)*The existing layout of William Head precludes the structuring of the institution according to the "community" proposed in the original design concept.*

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