## CHAPTER IV: INTERPRETATIONS AND IMPLICATIONS

The observations of the occupants in the entry hall, yielded three general principles about spatial perception and human behavior. The first dealt with 'constricted space' and 'open space' and the perceived functions imposed on them by the occupants. The 'Existing Condition' produced behavior that would collect in the center of the entry hall, obstructing the movement of passing occupants (Fig. 19); this behavior became the focus of this thesis study. The layering of Form-A and Form-C in the front half of the entry hall created a new ceiling plane (at seven feet off the floor plane), constricting the space in relation to the remaining entry hall space. The rear space, primarily defined by the vertical surface of Form-A, but also by the absence of forms, created an open space adjacent to the elevator (Fig. 1). The design intention of these two forms was to create a perceived threshold defining a pocket of space enveloping the elevator core. By doing this, it was anticipated that the occupants would detect this open space and be drawn to it when waiting for the arrival of the elevator. This would pull the waiting occupants away from the center of the entry hall, and

allow for the circulating occupants to pass by them without obstruction. However, the observations found a differing behavior resulting from the installation of these two forms. The difference in design expectations and resulting behavior occurred first in the time period following the installation of the four gestured forms. There was a shift in the stationary points for the 'Installed Condition', from the previous 'Existing Condition' (Fig. 19 and 21). The occupants tended to stand closer to the front of the entry hall, under the canopy defined by Form-A and Form-C. These two forms appeared to be drawing the stationary occupants away from the open space and into the constricted space (Wollheim p.38-39 App.F; Rapoport, History p.246-247 App.I); the direct opposite of what the forms were intended to do. After observing this behavior, it was believed to be a result of the occupant's subconscious spatial conditioning that is learned over one's lifetime. The stationary occupants would move toward the constricting perimeter spaces, away from the open space which was viewed by the stationary occupants to be 'more for heavy traffic and the movements of passing occupants' (Wilson p.65-69 App.B; Hall, Handbook p.16-18 App.D). It is only natural for the occupants to have spatial conditioning that realizes the need for more space where there is more movement of people. As recorded in Figure 21, the stationary occupants located quite a bit around the forward projection of Form-C, believed to be drawing the occupants away from the nearby space directly in front of the elevator door, defined by Form-B. An attempt was made to re-direct the behavior patterns of these stationary occupants, to the original design intention; using the observations to guide and inform the adjustments to be made. Adjustments were made to Form-B and Form-C (Fig. 4). The first adjustment, to Form-B, was to have the form lowered to increase the definition of the envelope of space adjacent to the elevator door. By lowering it, a constriction of the space was intended to draw the occupants into this space, similar to what had occurred in the front space with Form-A and Form-C. The second adjustment was intended to aid the first adjustment by lowering the forward projection of Form-C to an 'imposing' height at six and a half feet off the floor. This was believed to repel the stationary occupants away from the larger constricting space under Form-A and Form-C, thereby encouraging the occupants to re-locate in a new position (preferably the newly adjusted space adjacent to the elevator door). It was learned with the independent study of gestured form and activated space (Schlueb, Independent p.2-34 App. M), that there are limits of extreme polarities in the defining of a space's thresholds and envelopes. Therefore, the adjustment of Form-C was intended to push the forward projecting portion of that form beyond the 'comfortable' threshold of constricting space, and into the more severe position, 'imposing' on the occupied space. Figure 23 records a significant shift in the stationary occupant's behavior patterns towards the desired design intention, resulting from the adjustments that were made.

The second of the three general principles observed from the entry hall, was related to the types of paths that were resulting from the occupant's movements. The movement paths were found to be of a specific nature as a result of the tight dimensions in the entry hall (12'-8" width by 10'-4" depth). The paths tended to be smooth curves, connecting the occupant's destination point with their origination point (Fig. 9 thru 11). This seems to be a result that would contradict the implications made by the physical proportions and arrangements within the entry hall. It would be anticipated that a tight space with projecting corners and recessed doorways, would create more linear paths or combinations of linear paths with an angular transition point as occupants 'turned' corners. However, this was not observed to be the case; rather, the paths tended to curve as a result of the short distances between the start and end points, making a smooth transition point as occupants 'rounded' the corners. The hurried movements of the occupants through the entry hall, did not allow for precise changes in directions when confronted with the rapidly unfolding tight context; and therefore resulted in curved transitions of the movement paths.

The last general principle observed, involves the transparent nature of the entry hall's spatial thresholds and perimeter envelope. As referred to earlier in the introductory chapter, the 'Existing Condition' of the entry hall is perceptually transparent at the perimeter surface level. This transparency effects the occupant's foreconscious awareness of the environmental context, however the occupant's subconscious awareness continues to sense the environment's context and responds to it without the occupant's knowledge. The existence of this phenomena became apparent with the observation of the occupant's behavioral responses to the installed forms. The curved paths of movement that the occupants make as they 'round' the corners (referred to in the above paragraph), were recorded to be of a 'safe' proxemic distance from the entry hall's corners in the 'Existing Condition'. However, once the forms were installed in the space, that 'safe' distance narrowed to a 'tighter' distance rounding the corners. Figures 16 and 17 illustrate how Form-B becomes an example of this response, when the occupants pass by the corner on which the form is located. In the 'Installed Condition' the paths are at their 'tightest' distance from the corner, then backing away from the corner in the 'Adjusted Condition'. This response to Form-B is believed to result from the newly installed visual object drawing foreconscious attention to itself. Since the occupant's senses became aware of Form-B, the occupant is able to round the corner 'tighter', with more accuracy and less chance of bumping into the corner as they pass it. In contrast, in the earlier condition without the presence of Form-B, the occupant's foreconscious senses are not stimulated by the transparent nature of the corner's surface perimeter; thereby leaving the occupant's subconscious awareness to judge the proxemic distance of clearance as they pass the corner. Since the occupant's senses are relying on their subconscious awareness,

there is a tendency for the occupants to make a 'safe' clearance of the corner; rather than taking the time to assess the distance with their foreconscious awareness (Crick p.205-210 App.B). In the 'Adjusted Condition' the paths backed away from the corner, resulting from Form-B physically obstructing the previous 'Installed' position's paths. By adjusting the form to become a physical obstruction on the occupant's movement (as opposed to a conceptual obstruction in the 'Installed Condition'), there was an interesting development between the two types of movement patterns in Figures 16 and 17. The movement pattern in Figure 16 shows the occupant's paths as they circle down the staircase. When Form-B was lowered in the 'Adjusted Condition', the median line of movement shifted outside of the original 'Existing Condition'. This demonstrates that the latest position as a physical obstruction, has 'more' influence of repelling the occupant away from the corner, than when there was no form there at all and the influence was solely from the subconscious awareness of the corner's surface perimeter. A different development occurred with the movement pattern in Figure 17, which shows the occupant's paths as they climb up the staircase. In this case, when Form-B was adjusted lower, the median line of movement shifted outward from the 'Installed Condition', but not far enough out to meet with the original 'Existing Condition'. This demonstrates that the latest position as a physical obstruction, has 'less' influence of repelling the occupant away from the corner, than when there was no form there at all. By comparing these two patterns, 'circling down' and 'climbing up'; it is evident that these similar patterns yield differing results from the same form in the same position. The occupant circling down the staircase, perceives more spatial influence from Form-B than the occupant climbing up the staircase. This may also account for the significant shift in the median lines in Figure 16 and a marginal, almost negligible shift in the median lines in Figure 17.

From these three general principles, based on the observations made of the relationships existing between the enhanced gestured forms and the engaged human occupants in the entry hall space; several interpretations can be made of the connections between behavioral patterns and gestured forms or the occupant's perceptual awareness of proxemics in activated and detached spaces. The first principle established that proxemic research reveals the degree of influence 'spatial configuration and delineation' can have on human behavior, in addition to the ability to measure the location and extremes of spatial thresholds and envelopes. While the second and third principles established that this type of research reveals the degree of influence 'form positioning and articulation' can have on human behavior, in addition to the ability to study human subconscious and foreconscious perceptions. From this research comes a strong argument for the study and adjustment of architectural forms after they have been installed into a

space, in order to measure and respond to the occupant's perceptions and behavior patterns. This study could possibly take on a similar critical nature and scientific accuracy as found in such trades as the installation and 'fine tuning' of acoustical tiles in auditoriums; provided that proxemic relationships between body and form are studied with the same degree of intensity and sophistication.