AN ARCHITECTURAL EXPRESSION OF INDIVIDUALITY:
AESTHETIC MANIPULATION AS A CATALYST FOR INDIVIDUAL EXPRESSION:
A Residential Complex in Pittsburgh, Pennsylvania:

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When "the common good" of a society is regarded as something apart from and superior to the individual good of its members, it means that the good of some men takes precedence over the good of others, with those others consigned to the status of sacrificial animals.

Ayn Rand, Capitalism: The Unknown Ideal

Abstract. Architecture today tends to focus on making a single statement for a building, rather than on expressing the varied occupant's building, when the building's image is more important than its users, this can be the correct decision. However, when the building is designed primarily for its occupants, such as an apartment building, it does not logically fit that the building should have one single expression.

This project examines the concept of creating an architectural expression of individuality within a building typology that typically has very little expression of its users. The project itself is a residential complex in downtown Pittsburgh, Pennsylvania consisting of five mixed use buildings on a full city block, but the project is concerned primarily with the concept of expressing individuality rather than on the actual buildings designed.
Individuality. Like snowflakes, no two men are created equal. Men cannot help but be individual, and yet many relinquish their individuality to others. When we give up our individuality, we give up our power to make decisions for ourselves, and we give that power to others who may not act in accordance with our own views.

Humans cannot act collectively. While we have systems that work collectively, every system of humans depends on each person within the system making the individual decision to act with the group. That person always has the choice to defy the group and to break away. Because of our advanced reasoning abilities we lack the instincts to act collectively. Collective behavior requires the relinquishment of individual decision, which is not possible in humans.

When people give up their individual right to choose, they have made a choice. Their choice is simply to defer thought to someone else, to make themselves a slave to someone else's decisions.

Animals such as fish and birds are able to act collectively as they school and flock because they rely on instinct to control their behavior. They are not making conscious decisions to be part of the flock, or to be part of the school. Rather, instinct tells them to be part of the group because this activity preserves the species as a whole rather than the individual.

Collectivist thought, although not usually stated so succinctly, holds that collections of men are physical things - that abstract ideas such as "crowd" and "group" are entities in and of themselves. We often think of large systems of people in the abstract - systems such as our government are so large and complicated that they are difficult to think about in terms of the individuals within the group. What we must realize, however, is that no matter the size of the system, it will still be composed of individual people making decisions. The system works because the individuals within the system are making decisions toward a common goal.

Collectivist thought can be destructive if we do not consider the fact that individuals make up all human systems. If we consider systems in the abstract as being entities themselves, we lose sight of the people within the system. We rely on the system rather than the individuals within it.
Design. Architectural design today often does not concern itself with the individuality, and rather looks at projects from a purely collective view. Buildings are designed without an expression or recognition of the needs of the individuals within the building. The outer shell, or look of the building, supercedes the individuals within the building, and the users must bear the identity of the building. This can be acceptable if the building is part of a larger identity, such as with a corporate office building. While the users certainly retain their own individuality, they are part of a larger corporate identity while they occupy the building.

Apartments buildings are also often designed as a single statement. The residents of apartment buildings must become part of a larger architectural statement that has nothing to do with their individual identity. Apartment building design takes on the same ideas of office building design with a unified façade, but unlike an office, there are many different identities behind the walls that should be shown. Instead of the building reflecting the people within its walls, it makes its own statement that has little to do with its users.

The façade is composed so that all of the windows line up in a nice, straight composition, rather than being designed to maximize their use for the resident of the space. The user's needs are secondary to those of the building as a whole.
Although a flexible set-up admittedly adapts itself to each change as it presents itself, it can never be the best and most suitable solution to any one problem; it can at any given moment provide any solution but the most appropriate one.

Herman Hertzberger, Lessons for Students in Architecture. (146)

THE POSITIONS

Positions. There are many different approaches to thinking about an architecture fit for the individual. The most basic concept is to simply leave the space totally open so that each user can fit-out the space with walls and materials as they choose. Open building planning allows the theoretical maximum amount of freedom within a space because the users make all of the choices about how the space will be designed. Another option is to design each apartment differently to make each one of the apartments individual within the building. The final approach is a concept called polyvalency in which spaces are designed in order to provide many different possible uses without dictating any specific use for any space.

Open Building. This is perhaps the most straightforward approach to designing a space that fits the individual. In theory, every user who moves into the space can reconfigure the apartment to suit his or her needs. When a resident moves out, the next resident can put up new walls in locations that better suit his or her needs. The main drawback to this approach is that there is a good possibility that the first user will arrange the space in a way that suits him or her, but the next user will, instead of taking down the walls and putting up new ones, simply live with the space as it is. Each user does not intrinsically have to change the space to fit his or her needs.

Open building systems can also utilize a kit of parts rather than requiring its users to construct their own pieces for the inside of the space. All of the elements of the interior can be constructed so that they can be dismounted and moved at a later time. This gives a greater degree of flexibility, and makes possible changes between subsequent generations of residents without the cost of fitting out the space each time. Although in theory this provides for a great deal of flexibility, often the elements that are flexible are never moved because of the inconvenience and effort involved in moving them.

Open building design assumes as its main tenet that we cannot know what the best design is, so we do not design. It assumes that there is no "best design," but rather that the design should be left nebulous so that the user can define the design.

Mies van der Rohe's Lakeshore Drive apartments give their residents "freedom." Three positions are possible for the blinds—up, down, and in the middle on the mullion.

Open building leaves the floorplan open so that the user can decide where the partitions go in the space.
Diversity encourages creativity, while repetition anaesthetizes it. Often architecture is too homogeneous, sometimes because the type is simply repeated, sometimes because of a self-centered desire to see buildings apart from their context, sometimes because of an exaggerated aesthetic commitment which tends to a precious 'architects' architecture.

Lucien Kroll. *An Architecture of Complexity* (29)

**Unique Designs.** This approach takes the stance that to give individuality to the users of a building, that each space should be different. Instead of having a small number of apartment types, each apartment is designed individually.

The primary drawback to this system is that it is an imposed individuality rather than being an expression of the user. The user of the space makes no decision about how the space will be configured. While he receives a space that is different than those of the other people in the building, it is not HIS space. He had no part in its design, and his own existence has nothing to do with the configuration of the space. He actually must subordinate to the design rather than have the design subordinate to him. This system gives the aesthetic illusion of individuality, and it can provide a sense of identity, but it does not let the individual have any control over the design.

This is overcome most commonly by a participatory design process that involves the users of the building in the design of each space. While this certainly tackles the problem for the first generation of users, it is not really the most appropriate solution for a building in which residents will be moving in and out frequently. The participatory process makes the space perfect for the first user, but the space is no longer perfect for the next resident.

While Lucien Kroll's Social Centre (Meme) gives the outward appearance of a huge diversity of users, the façade was designed independent of the users. The façade was designed using a randomizing system to create the greatest amount of diversity. "We sought the greatest possible differentiation, the avoidance of repetition, and the opportunity to preserve a sense of genius loci (Kroll, 39)." The interior of the building has an open plan, so users can set up partitions to make their own spaces. The façade provides unique experience to users rather than true individuality.
The only constructive approach to a situation that is subject to change is a form that starts out from this changefulness as a permanent - that is, essentially a static - given factor: a form which is polyvalent. In other words, a form that can be put to different uses without having to undergo change itself, so that a minimal flexibility can still produce an optimal solution.

Herman Hertzberger, Lessons for Students in Architecture. (147)

Polyvalency + Aesthetic Manipulation. Polyvalent space has no dictated use, but rather provides cues for different ways that a space could be used. A piano, for example has all of the notes in any western composition, but its form does not dictate any specific use. While you can play any song on a piano, the piano itself does not limit what can be played. There is no intrinsic song built into the piano.

A blank sheet of paper is a simple example of an everyday object that is polyvalent. It has no dictated use, but we use it constantly for all types of tasks. It can hold information from the most banal to the most complex, it can be used to create art, or it can be wrapped around a sandwich to keep it for later. Its only limits are its size and its shape - it has no functional limits.

Practical manipulation is most common because architects design primarily for the function of the building, rather than for the aesthetic concerns of each resident. We provide for the thermal or solar comfort of the users, but we do not concern ourselves with their aesthetic needs. While the building as a whole may look nice, the individual apartments cannot adjust to meet varied needs.

In each of the five diagrams, the outer box represents a single polyvalent space that can be divided, in this example, into three spaces. The five diagrams show different configurations of the same space. The different colors indicate three different functions that the space could take on. The functions can be fully separated or, as in the bottom two diagrams, the functions can begin to bleed into one another.
Aesthetic manipulation indicates a level of control beyond that of merely pragmatic manipulation. Rather than simply controlling the functional aspects of the space, such as the blinds on the windows, the users are able to change the aesthetic of the space, and the aesthetic of the entire building through their manipulation. While changing the disposition of the blinds can change the aesthetic of a building, it is done for reasons that are merely pragmatic, rather than aesthetic. The users change the blinds to adjust the amount of light coming into their space, and that change can be read on the skin of the building. Aesthetic manipulation implies that users can change elements for reasons other than practical necessity.

Polyvalent space design is the most appropriate choice for this design because it provides true individuality to the users, and also provides for constant change. Unlike designing each apartment uniquely, polyvalent design lets the user influence the design to make it his or her own. While open building can provide this level of freedom, the scale of the change is large enough that many people will not want to adjust elements at all, effectively taking away their individuality. Polyvalency provides quick change, and it requires that users make decisions when they occupy the space. While polyvalent space provides cues for usage, people must make their own, individual decisions about how space will be used. This makes people aware of their own individuality because they cannot rely on others to make decisions for them.

Two photos of an elderly housing project by Herman Hertzberger. Both pictures illustrate how simple elements such as concrete blocks can create cues for use. The concrete blocks are filled with dirt and used as planters outside (top) or they are used as small shelves to hold anything from a newspaper to a glass of water (bottom).
THE SITE

Site. The building is located in the heart of the Cultural District of Pittsburgh, PA. This is one of the areas in the downtown that is being actively redeveloped by the Pittsburgh Cultural Trust, and it contains many of the city's theaters and art galleries.

The building typology of Pittsburgh is widely varied. Unlike many cities, there is no true prevailing style in Pittsburgh. Although many of the buildings in the downtown are fairly typical brick mid-rise buildings, the city is also home to many innovative buildings such as the USX Tower (1970) which uses Corten steel as its outer skin and PPG Place (1984) which showcases PPG glass.

Pittsburgh developed in the early 1900's as a center of industrial production, which attracted to the city a huge population of unskilled workers, many of them first generation immigrants to the country. In the 1970's, the steel industry, the largest of Pittsburgh's industries, began to wane and the city began to shift over to an economy based on information technology. This shift has turned Pittsburgh from a predominately blue-collar city to a white-collar city. While the industry has changed quickly, the population base has not changed as much, leaving Pittsburgh as a highly ethnic city with a high tech industry base. In addition to the great diversity in the general population of Pittsburgh, the city is also home to two large universities - The University of Pittsburgh, and Carnegie Mellon University - which introduce into the city a large number of young, highly educated people.

The city is home to a great number of cultural attractions, most notably the Andy Warhol Museum, the Mattress Factory (a museum of modern installation art pieces), and the Wood Street Gallery (a museum of modern art above the wood street T station). Pittsburgh is also home to three professional sports teams - hockey, football, and baseball - that bring a great number of visitors to the city.
architecture should offer an incentive to its users to influence it whenever possible, not merely to reinforce its identity, but more especially to enhance and affirm the identity of its users.

Herman Hertzberger, Lessons for Students in Architecture. (148)
PHOTO MONTAGE

The complex lies on the block bordered by Penn Avenue to the south, 7th Street to the west, 8th Street to the east, and Duquesne Boulevard to the north. The site has five buildings on it currently, but for the purposes of this project, the site is assumed to be clear for development. Penn Avenue is the principle pedestrian avenue on the north side of the city. Duquesne Boulevard is a larger, less pedestrian friendly road. The site is approximately 250 feet along Penn Avenue by 500 feet along 7th Street.
Complex. The project consists of five residential apartment buildings on a full city block in downtown Pittsburgh, Pennsylvania. The entire complex is comprised of approximately 200 living units and is 445,000 square feet. The primary focus of the project was on the easternmost building, which was fully designed. The other four buildings were partially developed, but remain principally conceptual. The other four buildings would be developed in different styles and using different technologies each suited to the users of the building. By having multiple different styles of buildings, each one becomes an individual within the site.
MASSING DEVELOPMENT

Version 1

Version 2

Version 3

Version 4

Version 5

Version 6

Version 7

Version 8
Site Plan. The basic massing strategy of the complex derives from five nodal points outside of the site. As these nodal points connect together, they begin to form paths through the site. The three main paths begin to indicate a large courtyard space in the center of the site. Each of the paths requires an entrance to the site, so the buildings were formed to frame these entrances.
**SITE COMPOSITION**

Site Composition. The complex is mainly residential above the first floor. The first floor of four of the five buildings is retail, with the final building having mechanical space in the first floor. This building is located along 8th street, which is a smaller, less pedestrian oriented street. The two tower buildings are located on opposite corners to help define the complex within the city. A longer apartment building lies along 8th street, and townhouses lie along 7th street. All of the parking for the complex lies underground in a garage. The garage is divided into three sections that each serve different buildings.
Section. This section illustrates how the complex is broken down vertically. The main apartment building examined in this study lies on the east of the complex. The building is designed with a skip-stop system so that horizontal circulation only happens on the second, fourth, and sixth floors. All of the apartments in this building are two levels so that they will meet up with the circulation. The center of the building is a wide corridor with a central circulation spine that serves all of the units. Each unit has a small bridge off of the spine to get to the door of the apartment.

This reinforces the concept of individuality by creating a specific entry and circulation for each apartment.

The central plaza space for the site is raised half a level off of the ground to help define that space as being a more private space for the users of the building. It is still open to the city, but by virtue of being raised off of street level, it becomes more private.
Courtyard. The main plaza space creates a shared open space for the complex. Within that open space, a series of planters helps to bring the concept of individuality into the open space. The planters are divided into small strips that can be purchased by the residents of the buildings in the complex. The residents can choose how to develop their section of the planter. The residents can also purchase several sections if they are available to create a larger planting area.
ELEVATION

Elevation. The elevation illustrates how the individuality inherent in the building can be read at the city scale. The units of the apartments are framed by the structure of the building, making it possible to read the different types of apartments in the building. The service sections of the building — elevators, wet cores, and stair towers are articulated separately from the apartments to let the apartment units take on a greater importance. They are not grouped in with any part of the building. The lowest floor of the seven-story apartment building is mechanical space, so a colonnade is created along the road to articulate the building at the street level.
**PERSPECTIVE**

**Montage.** This image shows how the buildings mass and articulation begin to match up with the context in the city. The buildings in the complex are of comparable size and mass to the neighboring buildings. The articulation is different than the buildings around, but it still blends with the context. By creating a different articulation, the complex becomes more of an individual within the city as a whole. The complex makes a statement about individuality without denying the context completely.
Building. The primary focus of the project is the apartment building located at the northeast corner of the site. The building is comprised of 59 living units ranging in size from a single bedroom to a three bedroom apartment. The apartments are laid out along a wide central circulation spine, creating a naturally lit atrium space in the center of the building. Each apartment has a small bridge off the spine, creating a greater sense of individuality within the building.
APARTMENT LAYOUTS

Single

Double

Double (Larger)

Triple
Atrium. The central circulation spine creates an atrium space for the building. The central hallway lies in the center of the space with small bridges to connect each apartment to the spine. This creates a greater sense of individuality because each apartment has its own section of walkway. By pulling the walkway away from the apartments along the sides, the users can see the apartments above and below them, which creates a better understanding of all of the individuals that make up the building.

Each apartment has a space for 2 dimensional artwork for display, and a small window box to display small objects to create a "jewel" for each apartment. These two devices allow the users to easily display those things that are important to them, and thus to individualize the space. By showing others the things that are important to them, the users begin to develop an identity within the building.
Dining. This space can be configured as a dining room for the apartment. The adjacency to the kitchen helps this configuration. The wall cabinets can be used as shelves for plates and other items that would go on the table.
PERSPECTIVE

Living. The apartment can be configured with the first floor as a living space rather than as a dining space. The wall cabinets can be arranged to act as bookshelves or to hold entertainment equipment.
PERSPECTIVE

Studio. In this configuration the apartment is used as a studio with the bedroom on the main floor. The second floor of the apartment can be used as an office or a living space.
Furniture. This conceptual closet design exemplifies the ideas of polyvalency. While the base unit can be used in many different ways, it has no dictated use. Each apartment would have several of these units to be used in various ways. It can easily be used as a pantry for the kitchen, an entertainment center, a closet, or many other uses. It can easily and quickly be converted from one use to another by simply adjusting the heights of the shelves.
Reflections. This was one of the most successful projects that I have worked on, but, like all projects, certain portions of it could have gone better. I got stuck on certain sections of the design when I should have focused my resources on other pieces.

Initially, my design goals were much too expansive to be completed in one semester. I wanted to design each of the five buildings in the complex, but quickly realized that it was an unreasonably large task, and that I would be better off working on only one building. I feel that I should have chosen a smaller site and project so that I could have explored the spaces in more depth. A large portion of my time was devoted to figuring out infrastructure issues that could have been avoided in a project with a smaller scope. I feel that I gained a lot by trying to tackle a large project, but that the spaces could have been more developed in a smaller project.

I explored the concept of polyvalent space in depth, but I think that the project could have been more successful if I had blended aspects of the unique design approach with polyvalent design. This would have made the project significantly more complex, but I feel that it would have made the spaces richer and more individual. By taking two of the initial design approaches and fusing them, I could have created a stronger sense of individuality.
WORKS CITED


