CONNECTIONS IN ARCHITECTURE

The environment is composed of many parts. Growth occurs through the incremental addition of new parts. During this process there is a desire on the part of the architect to establish order in the environment through a process of unification. Unity is a metaphysical concept. It is the essential quality needed to give man orientation to the human experience.

During the modern movement it was popular to articulate the various elements of a building. The walls were separated from the ceilings, structure was independent from elements of enclosure, and the buildings themselves were often separated from the ground. The result is an architecture consisting of various juxtaposed parts. In reaction to this attitude, I propose an architecture which celebrates connections rather than revealing them, resulting in a synthetic rather than analytic expression of the meeting of the architectonic elements.

Of course, not all built elements need to be or should be tangibly connected. Many elements are truly independent and need to be physically separated. For these cases, I propose the use of implied connections to accommodate both the physical needs of separation and the psychological needs of unity. Through the use of both celebrated and implied connections I intend to exploit both the dependent and independent systems in architecture.
INCLUSIVE UNITY

Unity is essential in the environment. Of course, there will always be differences and the differences must be accommodated. Differences are recognized and best perceived when observed against an orderly structure.

This can easily be understood through an analysis of rhyme. When we think of the familiar "Jack and Jill went up the hill...", Jill rhymes with hill. But, if Jill is replaced by hill "Jack and Jill went up the Jill...", the passage makes no sense. The parts become mimicry since they fail to recognize the internal meaning of the parts. Also, if we say "Jack and Jill went up the street...", we are still left with a less fulfilling result. Although the internal meaning of street is satisfactory to make sense of the passage, its lack of response to the external forces of rhyme allow it to fail in its context. Therefore, rhyme can be defined as a likeness tempered with difference. This article is concerned with the study of these likenesses which bind the different parts. The likeness is the underlying order, the connective tissue, needed to impart unity in the environment.

The type of unity which I am advocating must not be confused with simplification. Simplification can result in the Jill-Jill relationship mentioned previously. A unity based on inclusion must be used to acknowledge the differences inherent in a system. Robert Venturi refers to this
Phenomenon as the obligation to the difficult whole. He points out that Gestalt psychology considers a perceptual whole to be more than the sum of the various parts. It is dependent on the number, position, and inherent characteristics of the various parts.

Some connectors are easier to recognize than others. One of the simplest is the dominant binder. The dominant binder is a tangible connector which is so strong that differences in the system cannot overpower the bind of the connector. This is the basis of the spine type organization. On an urban scale, one of the finest examples of a dominant binder is in the plan for Paris by Haussman. The rows of trees form green strips which work together with the axiality to link the various monuments to tie the city together. This same principle of the green link was employed by Daniel Burnham in his plan for Chicago.

One architect whose work is abound with dominant binders is Frank Lloyd Wright. In the Unity Temple a trim piece on the ceiling will turn and run over a column capital linking the two separate entities but still acknowledging their discontinuity. The same trim piece will reappear on walls, window mullions, light fixtures, furniture, and even in the pattern in the carpet. This can be contrasted by the work of Eero Saarinen where in the TWA terminal, the surface of the floors, walls and ceilings become continuous
Frank Lloyd Wright, Unity Temple
the recognition of separate parts. It becomes an overly simplified diagram of the true condition.

If the dominant binder could be described as a two-dimensional link, joining points in plan or surfaces in elevation, its three-dimensional relative would be the device of interlocking. In the Security National Bank and Trust Company building Louis Sullivan employs the device heavily in the front facade. The large arch, which is the large scale door figure, is interlocked with the door frame which rises out of the rusticated base. Furthermore, the door frame is a separate but attached mass from the base. The interlocking of the large window and small door allow the simultaneous reading of big door-small door. This reading was necessary since the building sits on a dense urban block but is viewed through the trees in a central urban park. Also of note in this facade is the fact that the larger square window at the corner of the base can exist in asymmetry but not destroy the unity established by the dominant large arch.

In the plan of the Hotel de Beauvais the vestibule is partially inserted into the court, interlocking the two spaces together. This acknowledges the fact that this is the primary place of passage between the two zones. The wall articulates the boundary of inside and out, but there is that small zone of space which is ambiguous as to whether
Security National Bank and Trust, Louis Sullivan
it is an object in the courtyard or a fattening of the vestibule. This notion of ambiguity is related to the concept of inflections.

Gestalt psychology suggests that a degree of wholeness can vary. The various parts can refer to a larger whole: they can be fragmented wholes. The concept of a fragment referring to a larger entity is called an "inflection". Thus, inflections are implied connections. In the case of the vestibule at Beauvais the three rooms along the wall form a triptych, an easy unity. The center room inflects into the courtyard to suggest a change in direction of movement through the sequence of rooms. The vestibule inflects toward and interlocks the court. The room is whole unto itself but also a fragment of the greater whole in its external relationship.

The idea of inflections is an integral part of contextualism. An inflected part is by nature related to some larger picture. Inflections can be as small as a detail or as large as an entire building.

In the case of Blenheim Palace the side pavilions are slightly assymetrical, leaning inward. The pavilions are seperated but inflected toward the center. Their fragmented form allows them to take on a secondary role to the central pedimented mass. By contrast, Holkham Hall could exist as three seperate pavilions since each is a whole unto itself.
The final type of connection considered here is transformation. It has been said that the essence of architecture can be seen in the wall and the frame. All other barriers are transformations of the two. The diagram below illustrates this phenomenon.

In Michael Graves' Hanselman House the sequence of entry is through a series of two planes. One defines the frontal plane of the mass of the house and the other defines a void of equal size to the house. There is an implied interlocking of the first plane and the house. The first wall is more frame than wall and the second is more wall than frame. By setting up this series of passages an axial order (an implied dominant binder) is established allowing the programmatic particulars to happen off of the order and not be bound by it.  

It is the goal to free the binding nature of certain architectural conventions which come about by being exclusive in origin that I propose the necessity of both
the tangible and implied connections when assembling the various architectural parts.

The following examples of buildings and groups of buildings rely on many of the types of connections described in the previous section.

One of the most unified group of buildings ever assembled is the University of Virginia rotunda and pavilions. Each pavilion is unique, each based on a different classical order. This was done to help students of architecture study the classical orders first hand. The lawn is stepped in response to the sloping site. Unity is achieved primarily through the use of several dominant binders working in conjunction. The lawn sets the horizontal plane. The arcades define the edges and the tree rows reinforce the edges. The two sides of the lawn, incomplete in themselves, inflect inward toward the rotunda. The position of the pavilions and the arcades work together to link the arcades. The rotunda in turn with its white porch and pediment and red brick mass refers back to the same vocabulary as the individual pavilions. The increase in size establish the monumentality but the consistency of the form and vocabulary insures its connection to the arcades. All of the buildings employ the principles of transformation to connect inside with outside. The portico forms a screen which is pene-
PLATE XXXIII. University of Virginia: Rotunda as seen from the Lawn. (See Plate LVI)
trated before puncturing the perforated wall.

In Louis Sullivan's Farmers and Merchants Union Bank the connection extend down to minute details. The facade is composed of four basic discrete parts: an arched window, a terra cotta and stone lintel, a rectangular window and a door. The base condition is split into two parts, the window and the door, to express the interior organization. One side is the tellers' station and the door side is the customers' waiting area. The two are joined by the lintel which interlocks the three columns. The three are then held together by the large arch which springs from the center of the bays and acts as a dominant binder to hold the entire group together. There is a curious inflection in one of the ornamental details. Two lions stand over the two openings holding shields. Their position reflects the duality of the facade. The lions paws are at different heights. Rather than opposing the two in mirrored symmetry which would favor the center, they are identical, inflecting toward the right (door) side. The entire composition shows an overall centrality but a slight justification to the entry.

This facade is a microcosm exhibiting the independence and interdependence possible through the implementation of diverse connection types.


Forster, Kurt. "Monument/ Memory". Oppositions 25. Fall 1982


FOOTNOTES

1. Perez de Arce, Rodrigo. "Urban Transformations"

2. Bell, David. "Unity and the Architecture of Incompletion".

3. Humphries, Nikolaus, "Natural Aesthetics".


5. Ibid.

6. Ibid

7. Bell, David

PROGRAM

GOALS
- Provide a town center composed of multiple parts.
- Establish order which can allow for growth
- Integrate ensemble with water and town.
- Investigate potential of pre-engineered building systems.

FACTS
- see attached data
- hilly site outside Austin, Texas
- stable soil
- hot, dry summers/ cool to temperate winters

CONCEPTS
- establish narrative for activity
- arrange buildings to take advantage of activity
- make a responsible address to the solar issues

NEEDS
- see attached data

PROBLEM
- Establish the permanence necessary for a town center utilizing a system which is currently recognized as being temporary.
- Address issues of monumentality, growth and ability for transformation.
- Manipulate architectural connections so that the composition does not become closed, but still is whole.
PRECEDENTS
VIEW FROM RIVER LOOKING SOUTH
VIEW FROM MARINA LOOKING NORTH
VIEW FROM GRAND STAIR LOOKING EAST
TOWN CENTER
POSTSCRIPT

The year began with two fundamental intentions. One was to develop a more critical attitude towards architecture. The other was to make the thesis experience a beginning of a professional career rather than the culmination of an education. On this basis, I feel the project was a great success.

The study of connections involved all levels of scale in the design of the new town center. The study: 1. helped resolve the placement of institutions in a town and in the society, 2. brought a Gestaltian unity to diverse parts, 3. helped in the making of rooms and places through the meeting of the various systems and parts, 4. resolved the meeting of the building to the ground, 5. made implications for growth while retaining a sense of wholeness about the present condition, and 6. demonstrated a method to attach or separate parts in an architecture of assembly.

The design demonstration also made an attempt to dignify a modest and often berrated building system. The jury revealed the need for additional development in order to achieve a primary goal; to make architecture out of systems building.

The manner in which the metal buildings were connected to the base was good in intention, but the proportion of the connection to the building was not large enough and thus the proper reading of the intention could not be made. The entire issue of proportion in both surfaces and volumes deserved greater development. This issue is my
Another objection of the jury was the attitude towards color. The entire project took on a neutral appearance. This was due to my reaction against the coding of parts. In retrospect, I feel I underestimated the value of seeing the various pieces both in their singular readings and their dependent states. The interiors were more successful in this manner and this attitude needed to be taken with the exteriors as well.

Due to the demonstration I have a greater understanding of building in an additive manner and I have the direction to correct the weaknesses uncovered in the demonstration.