GEORGETOWN WATERFRONT

A PROPOSAL FOR DEVELOPMENT
I would like to dedicate this book to my parents, who's constant encouragement, love and support have helped to make it possible.

Social thanks also to Donna, for helping to make this whole thing fun!
As one of the most dynamic waterfronts left undeveloped in the nation today, the Georgetown Waterfront demands resurrection from its currently blighted state. Stripped of its earlier identity and character, the river's edge awaits an entirely new form to signify its changed relationship to the Federal City and the Washington community, as well as to the historic district of Georgetown.

The proposed solution reclaims the waterfront for the public. While maintaining strong physical and visual connections with Georgetown proper, the waterfront development exploits dynamic building forms and organizations to create a needed sense of integrity at the river's edge. The building forms and massing lend definition to a riverscape along the Potomac, while at the same time enhancing and enveloping park areas along the river. The architecture defines a series of connected yet independent and separately oriented park spaces. These park areas take advantage of the broad vistas up and downstream to attain a maximum feeling of spaciousness within a minimum area. The open space represents a welcome visual relief from the tight urban fabric of Georgetown.

Due to the recent economic resurgence of Georgetown, the area has become an increasingly attractive location for private investment. Its role as the city's strongest and most vital tax base has also put Georgetown in a favorable position concerning municipal funds. Both these factors favor the development of the riverfront site. The proposed retail complexes, restaurants and hotel facilities are intended to reinforce the area's strong economic base and extend development to the river's edge. The functions were chosen to assure a steady influx of shoppers, visitors and area workers, keeping the site accessible to the public in every way.
Programming

1-10
Grace Protestant Episcopal Church, (Mis.
Canal Boatmen), 1041 Wisconsin Aven
1-C-20
Potomac Masonic Lodge No. 5, 1058 Thos.
II-D-1
Bank of Columbia (Bureau of Indian Trade;
Town Hall and Mayor's Office; Fire Comp
3210 M Street, N.W.
II-D-2
City Tavern, 3206 M Street, N.W.
II-D-3
Historic Georgetown Inc. and adjacent build
3001-3011 M Street, N.W.
II-D-6
Vigilant Fire House, 1066 Wisconsin Avenue,
II-D-8
Georgetown Market, 3276 M Street, N.W.
D-15
Bomford's Mill (Pioneer Flour Mills)
behind 3261 K Street, N.W.
Old Stone House*, 3051 M St., N.W.

Washington Canoe Club, West end
Georgetown Historic District
American Canal Historic District
The Georgetown Waterfront has enjoyed unprecedented economic growth in the last fifteen years. It has evolved from an industrial and warehouse district to a growing commercial and business center. The "waterfront" area itself is approximately a nine-by-four-block section of Georgetown proper, defined to the north by M Street, to the south by the Potomac River, and to the east and west by Rock Creek and the Key Bridge respectively. Although for the most part the waterfront area does not have the same residential character found in the Georgian row houses above M Street, city planners would like to extend this same feeling of "texture" into the waterfront district.

Georgetown enjoys an extremely lucrative retail trade largely along M Street and Wisconsin. The canal, located just south of M Street in the waterfront area, is also being developed as a retail strip. In addition to this, georgetown is the city's liveliest "night spot" due to its unique character and abundance of clubs and activities. The area is currently among the strongest tax bases for the city of Washington, and as such has become very attractive to investors.
The site for this project is an integral part of the community fabric. Occupying a prominent position on the Potomac River, the site must react both to its role in the context of Georgetown as well as its role as a landmark or focal point along the river. A number of elements have a pronounced influence on the development of the site. They are as follows:

1. The development must react to its prominent position along the river's edge. The project should begin to define the river and lend a sense of integrity to the waterfront, which is currently unused or blighted.

2. The project also needs to address the problem of segmentation caused by the Whitehurst Freeway, an elevated four-lane highway to the north of the site. I feel that while this segmentation allows a certain freedom of character, strong circulation ties must be established between the waterfront site and the existing Georgetown fabric.

3. The complex must integrate a large amount of open space and park area to provide a relief from the tightly knit urban fabric of Georgetown. In this sense the built environment could almost begin to act as an element designed to reinforce the open space along the river's edge.

4. Flood waters on the site can rise to a height of ten feet above grade. Although floods occur very seldom (about once every eighty years), this is a problem that must be addressed.
As the riverfront development is oriented toward the public as a whole, its facilities must appeal to a wide range of users. One characteristic that lends a unique flavor to the Georgetown area is the ever-present cross section of people. During the day, it is not at all uncommon to see a bag woman walking alongside hurrying white collar businessmen. At night, well-dressed social elite stare, bemused, at roving banks of Hare Krishna, or enjoy the subtle harmonies of young street musicians. Cyclists, joggers, roller skaters complete with sunglasses and blaring radios, all fight their way through the relentless streams of traffic. All these people are part of the richness of Georgetown and should be anticipated at the riverfront site.

Some principal user groups expected are as follows:

1. One main group of users would be the recently established white collar workers in the area. Development in the waterfront area over the past twenty years has established a tremendous amount of office space in the area, and with it, a sizable work force. Due to the tightly knit fabric of Georgetown, as well as the abundance of activities close at hand, most employees walk to do their errands and eat on their lunch hours. Due to the abundance of park space, beautiful views and wide range of dining and retail establishments, the waterfront development would provide a great attraction to this group. In the hot, humid summer months the cool breeze off the river and abundance of shade trees in the park would make this area still more pleasant for these area workers.

2. Visitors and tourists will also frequent the site. This group could include families on vacation and convention goers, as well as couples of all ages. A tourist information office is located at one of the main site entrances to help orient visitors. A tour boat dock, small maritime museum and a souvenir shop are other site features aimed at attracting tourists.

3. Area residents will also enjoy the riverfront development. As Georgetown residents tend to be working professionals, use by this group will be concentrated mainly in the evenings and on weekends. Residents should enjoy the complex for its abundance of dining facilities as well as the opportunity for a pleasant stroll along the river.

4. College students represent another user group. Students will filter into the site from Georgetown and George Washington Universities. Inexpensive lunch and dinner facilities, low-price retail and special events will all be attractions to this group.

5. Area shoppers from across the river in the Arlington/Roslyn area as well as some Maryland suburbs can be expected to use the site during weekends. One element that would make the site especially inviting to this group would be the provision for adequate parking, a luxury not often provided in the congested streets of Georgetown.
Kennedy Center as viewed from the Georgetown site
The southern exposure and spectacular views of the riverfront site provide, to a large extent, the ingredients necessary for a successful public development. Numerous natural elements combine to make the riverfront a great place to be. The architectural solution must respond to and enhance these natural assets, as well as screen and buffer negative features of the site.

The Georgetown Riverfront proudly boasts a number of spectacular views. Directly across the river is the serene view of Roosevelt Island, an undeveloped and heavily wooded park area. Views downstream (to the southeast of the site) include the impressive grandeur of the Watergate Hotel, as well as the Kennedy Center located slightly further downstream. The Watergate is located directly to the east of the site; its dynamic form and large mass create a strong visual impact. The presence of the Watergate would tend to discourage development of the southeast portion of the site, as a structure on this area may become dwarfed by the hotel.

Views upstream include the Key Bridge, a beautiful historic structure designated by the planning commission as having exceptional value. The skyline of Roslyn, Virginia is evident upstream as well, located on the far bank. This recently developed business district consists of a tightly knit group of buildings averaging around ten to fifteen stories in height. As viewed from the Georgetown site, the Roslyn development is by no means an eyesore, but rather it provides a pleasant contrast to the wooded riverbank below.

Besides providing a welcome visual release, the river itself offers many potential recreational activities. Although the swift current and river pollutants prevent swimming, many other activities can be enjoyed. There is currently a storage barn on the southern tip of the site for skulling crews and sail surfers, which generates a considerable amount of activity. The users of this facility are largely Georgetown University students, both team members and individuals.
A modest but noticeable amount of small boat traffic is also evident in the area. Foremost among this is the Potomac River Tour Boat, which currently docks at a shabby facility to the west of the site. The tour boat facility badly needs attention, and could be easily incorporated into a riverfront development.

The average tide of the Potomac poses little threat to development. The river has a modest crest; the water level normally does not fluctuate more than four feet. The problem, however, is the known flood cycle of the Potomac. Approximately every seventy to eighty years the river will reach a flood level of sixteen to eighteen feet above average, or approximately ten feet above site grade. This consideration proved to have a tremendous impact on the project design.

Area traffic patterns also have a great impact on the development of the site. Probably the most prominent feature is the Whitehurst Freeway, an elevated four-lane highway directly to the north of the site. The freeway is a noisy eyesore, which becomes a barrier between upper Georgetown and the waterfront site. Despite these negative aspects, the Whitehurst is a vital artery in the road network, heavily used as a Georgetown bypass by workers leaving the city. One strange feature of the freeway is the seemingly "dangling" off ramp, which ends mysteriously in midair around the base of Thirty-first Street. This was originally intended as another freeway to parallel the Whitehurst and continue up the river. As funding and enthusiasm ran out for this project, however, it was left unfinished and very abruptly cut off. Blessedly, due to current public opposition to another elevated freeway, it seems highly unlikely that this project will be continued in the foreseeable future.

Vehicular access to the site itself will come largely from the east via K Street, directly underneath the Whitehurst Freeway. Establishing this as a major site entrance gives users the opportunity to bypass the congested streets of upper Georgetown, as well as the heavily travelled Key Bridge bottleneck. Since the majority of westbound traffic on K normally uses the Whitehurst to bypass Georgetown, only a minimal amount of traffic actually filters into Georgetown along K. K Street at this point is not even used to one-third of its capacity, unlike most Georgetown

*Diagram courtesy of the Fine Arts Commission.*
streets which operate at or near 100% capacity (see fig. 12A). Through utilizing this "backdoor entrance" into Georgetown, as well as providing adequate and accessible parking, the site could become increasingly attractive to motorists.

There are strong pedestrian circulation patterns established in the area as well. A recreational trail currently runs from downtown all the way up the river, ending at the base of the Watergate hotel. This trail could easily be continued into the riverfront development and would ideally extend out along the river.

M Street, Wisconsin and the canal zone represent the major pedestrian routes within Georgetown itself. As most of the shops and activities are concentrated along these spines, they naturally become the major thoroughfares. The design of the riverfront should recognize these established routes, and react accordingly.

The nearest subway stop is located approximately seven blocks to the east of the site at George Washington University. A small to modest amount of pedestrian traffic can be expected from this direction as well.
The following are proposed functions to be incorporated into the development. The choices were made as a response to perceived needs after a careful analysis of the site. A short justification and rationale is given for each choice.

1. **PARK:**

   The site should incorporate a large amount of park area for the use of Georgetown workers, residents and wanderers. The site should not be developed to the maximum of 75% allowed by the zoning codes.
   
   - National Planning Commission: "the overloading of the waterfront would be damaging to the waterfront itself."

   - Wisconsin Waterfront renewal: "The natural open space provided by expanses of water provides a visual and emotional release from the city with a minimum of land"... There is a large demand for open space in Georgetown; especially during the lunch hour.

2. **RETAIL:**

   Retail complexes should also be incorporated to extend the character of upper Georgetown, as well as attract users to the site. The retail area would generate activity in the open spaces of the site. A looser "city market" type of retail will be developed, designed to enhance rather than compete with the existing retail trade above the river.

3. **RESTAURANTS:**

   Since one of the main attractions of the site will be the lunch hour workers of the area, it is natural that the development should incorporate eating establishments. Fast food stands should be utilized in the design, catering to the needs of lunch hour employees. Higher quality restaurants should also be present in order to attract evening diners.

4. **HOTEL:**

   A hotel should be located on the site to assure a constant presence of tourists. The hotel would also keep a twenty-four hour population on the site, thus enhancing safety and encouraging nighttime use of the promenade. According to studies by the National Planning Commission, there is a present demand for 1200 hotel rooms in the waterfront area. This scheme would call for a smaller hotel of 75 - 100 luxury rooms.

5. **BOATING FACILITIES**

   The sailing facilities currently located on the southeast corner of the site will be moved and incorporated as a more integral component. Provisions should also be made for the Potomac River tour boat to dock at the site.

6. **MUSEUM**

   A small maritime museum should be included to attract visitors and document Georgetown's rich history as a river port.

   All of the preceding elements should be successfully integrated to enhance one another, as well as reinforce the open spaces on the site and their interaction with the river.
PROGRAM SUMMARY

It was the initial intent of the project to establish a unique character in the waterfront development, sympathetic to yet distinct from the existing shopping developments. A looser, almost unfinished type of market atmosphere was desired, accenting rather than competing with the more formal shopping mall located near the canal. Exposed structural elements, careful choice of materials and articulation, as well as an emphasis on less formal and inexpensive retail and specialty shops were all ideas incorporated to help achieve this character.

ABOVE:

View of the riverfront site as it appeared in 1980. The site has recently been cleared.
Selected photographs of the waterfront area
<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>DESCRIPTION</th>
<th>AREA ALLOTMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>RETAIL</td>
<td>- Flexible retail space to accommodate small to medium sized specialty shops. Organisation to reflect the open, festive atmosphere of the riverfront site.</td>
<td>approximately 45 @ 1,000 square feet ea. = 50,000 sq. ft. ‡</td>
</tr>
<tr>
<td>EATING</td>
<td>- A series of small fast food restaurants situated near outdoor terraces or major public spaces in the retail complex.</td>
<td>9 @ approx. 900 sq. ft. each with 40% added for kitchen space = 11,500 sq. ft. ‡ Two @ 2,000 sq. ft. each, with 800 sq. ft. for kitchen. = 5,600 sq. ft. ‡</td>
</tr>
<tr>
<td></td>
<td>- An open air food market featuring specialty food shops, meat and fish counters, etc. One large, open space with outdoor access for eating.</td>
<td>One space @ 9,500 sq. ft. ‡</td>
</tr>
<tr>
<td></td>
<td>- Two small full menu restaurants to accommodate dinner patrons. One should be located in the hotel, and the other in the retail complex. The facilities should each have independent access.</td>
<td>Two @ 2,000 sq. ft. each, with 800 sq. ft. for kitchen. = 5,600 sq. ft. ‡</td>
</tr>
<tr>
<td>RECREATION</td>
<td>- Boat storage facilities for small sailboats and skiffs, with access to a river launch area. Locker facilities and a small lounge area are also to be incorporated into the design.</td>
<td>Storage area @ 3300 sq. ft. Locker room / Lounge @ 6,600 = 10,000 sq. ft. ‡ One space @ 6,500 sq. ft. ‡</td>
</tr>
<tr>
<td></td>
<td>- A small maritime museum to attract visitors to the site.</td>
<td></td>
</tr>
<tr>
<td>CIRCULATION</td>
<td>- Circulation and open space in the retail complexes should be spacious and enhance the atmosphere of the shopping environment as a whole. Much of this open space can be utilized as floor market area or eating space.</td>
<td>Circulation @ 30% of the total = 27,900 ‡</td>
</tr>
</tbody>
</table>

**TOTAL COMMERCIAL ...............93,000 sq. ft.**
Procedure
My initial approach to project development was one of compilation and analysis of information and research related to my thesis. This process was intended to help me familiarize myself with the basic problems facing the development of an urban waterfront, as well as gaining knowledge of many established solutions. Special emphasis was placed on the analysis of successful solutions in an effort to define the factors which contributed to their vitality. I felt that such positive features, once understood, could then be incorporated in the Georgetown solution where applicable.

Some of the major precedents studied include New York's Battery Park, Boston Harbour, Baltimore's Harbourplace, San Antonio's river walk and the moon walk in the French Quarter, New Orleans. The Baltimore solution proved the strongest influence on my design, through the character of the development as well as its role as a strong interface between the city and the waterfront. For a more detailed summary of research, type studies, and conclusions, refer to Appendix A.

The next step in the development of a structured design process was a familiarization with the Georgetown area as well as the riverfront site itself. As I had previously worked for an architect in the area, I already possessed a familiarity with the area, its character, its activities, and to some extent, its needs. An initial visit to the site in August, '83 helped me to enhance this sensitivity.

During this visit I was able to meet with Jeff Carson of the Fine Arts Commission. Jeff took the time to personally explain many issues facing the area as a whole, as well as my site specifically. In addi-
tion to this, I was able to obtain two studies concerning the waterfront area. Published by the Fine Arts Commission and the National Planning Commission, these reports greatly increased my knowledge of the site. The reports helped to define circulation patterns, zoning codes and projected development trends, and provided examples of proposed development solutions.

Through these initial contacts, as well as interaction with studio critics, professors, and fellow students at the university, I began to build up a network of sources from which to gather information. It was my intention to use this information base to establish basic parameters for site development within which a design solution could be successfully expressed.

In order to establish this "framework" for development, it was necessary to prompt my critics with various solutions to which they could respond. With the basic information that had already been gathered, I went about preparing conceptual solutions and intent sketches designed to provide an easy means of communicating ideas. Although these were by no means intended as finished solutions, they were presented as design options in an effort to evoke reactions from my critics.

The early conceptual schemes consisted of little more than basic building massing on the site with an indication of building function and a rough circulation layout. This approach proved successful in providing an effective means for instructors and critics to respond constructively to my ideas. By means of photographic and photocopy techniques, this process also allowed for easy reproduction of information. This enabled me to stay in contact with critics in Washington, who through their familiarity with the site provided valuable insight throughout the development of the project. (For a more detailed explanation of this communication process, refer to Appendix B.)

Three general massing schemes were put forth at an early stage in the design. From each of these came concepts and notions of organization and articulation eventually incorporated into the final solution. Each massing study worked with an established building area of 500,000 square feet, and organized this area in various ways. This figure was arrived at through an initial assumption to leave 50% of the site open for park space, and build to the maximum density allowed by zoning codes on the remaining half of the site. Although this figure was helpful in providing a rough tool for initial studies, the final solution ended up being designed at a considerably lesser density.
1. The first massing study investigated the idea of buffered park zones along the river. The retail/eating zones were located to the west of the site, for easy accessibility and optimum exposure. The complexes enveloped outward oriented parks, and buffered the noisy Whitehurst. The idea of a pavilion on the river acting as an extension of these complexes also appears in this scheme.

The hotel was located to the eastern, more secluded part of the site for reasons of privacy. The arms of the hotel wrap around to envelop a park area, defined to the north by the underside of the Whitehurst off ramp. The off ramp is utilized as a canopy over an open air market zone. The market would allow vendors to pull their trucks or cars on from K Street and quickly set up shop under the overpass. Using the existing off ramp in a constructive way became a controversial issue throughout the development of a final solution.
2. The second proposed solution exploited the idea of an "elevated ground plane" in response to the flood threat on the site. The entire complex was lifted off the ground 12 feet, and pushed back against the Whitehurst Freeway. The riverbank was left intact, buffered from the Whitehurst by the building mass. All along the southern edge of the complex, the twelve-foot elevation was broken down and integrated into the actual site through a series of leveled tiers. In this way the complex seemed to almost grow from the site, making the differentiation between natural and built virtually indistinguishable.

The functional organization of the second scheme was similar to solution One, the hotel being located to the east, retail to the west. Parking and service were organized underneath the elevated ground plane and were thus isolated from the river park spaces.

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Massing Study 2

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CONCEPTUAL STUDY 2
3. The third solution placed special emphasis on pedestrian sequence through the site. In this example an inlet was introduced which turned the pedestrian promenade back into the site. This helped to establish a focal point or node along the river, as well as to introduce a certain amount of diversity into what might otherwise have become an almost monotonous sequence. By pushing the pedestrians back inland, it also gave the opportunity for increased retail frontage, good economics for a commercial development.

The hotel proposed was a two-wing scheme similar to solution one, but this time with an outward orientation. The hotel envelopes a park space opening to the river and the rest of the complex. Hotel service and access in this solution were confined to the north sides of the building.
The tower marking the end of the riverfront promenade was a common element to all three schemes. The tower was intended to serve a number of purposes. First, it serves to mark the beginning of the promenade and establish a sense of place and arrival. Secondly, the tower acts as a beacon to the site as it is located on axis with Wisconsin Avenue, a major pedestrian thoroughfare. Third, it lends a sense of identity and balance to the Georgetown waterscape. This concept was directly integrated into the final solution.

The design of the tower recalls common elements from the Georgetown urban fabric. The design incorporates standard structural elements in a symbolic way, adding a layer of complexity to the composition. The metal panel cladding which wraps around the center of the structure is intended to limit outward views until the user rises above, heightening the impact of the broad vista.

The verticality of the tower contrasts with the horizontal expression of the retail facade. The vertical expression helps to mark the tower as a "starting point" to the promenade as well as to establish a relationship with the Watergate and Kennedy Center located downstream.
After considerable analysis and review, various points from each of these initial solutions were integrated into a design framework. The framework addressed itself to key issues concerning the development and organization of the site, allowing for individual expression of design without the danger of pure self-indulgence. Once a responsible framework was established, a number of various aesthetic and formal solutions could be successfully expressed.

I will now briefly summarize conclusions drawn from each proposal, then explain the established criteria for design.

The first solution received the greatest amount of criticism for the hotel's isolation of the park space to the east of the site. The hotel acts as a barrier between the park and the river, blocking views and sunlight.

Ideas met with enthusiasm in the first scheme included the extension of the retail complex into the river, as well as the utilization of the overpass for an open air market. Despite the enthusiasm for the open market concept, its location to the north of the site as well as its adverse effect on the hotel orientation left me with reservations concerning its successful implementation.

The second scheme's notion of an "elevated ground plane" to address the flood threat was deemed an acceptable solution to the problem. The connection between levels was seen as a crucial point in the success or failure of this approach.

Negative criticism of this solution was focused at the scheme's apparent disregard for Georgetown itself. The building organization does not recognize the extension of existing visual or circulation links into the site. Although successful in buffering the Whitehurst, the building mass fails to acknowledge Georgetown as a whole.

The ideas of the river inlet and focal hub were seen as the most positive features of the third scheme. While it was agreed that the inlet worked well conceptually, it was also pointed out that the practical considerations of stagnation and the buildup of debris would have to be addressed.
Think the siting of buildings are fine... would investigate built plaza rather than building extending to moat... then you wouldn't violate your original intent of preserving public promenade.

Club needs stronger connection with un-interrupted promenade.

Extension of grid into water?

Retail organization.

Preliminary master scheme retail.
Wisconsin street level entry
Traffic circulation
Should be below?
Improving if continuous level
Makes pedestrian to entry
Fluorescent of gloal
Plant allows
Law to penetrate
Sunny and
Enjoy the river
View as well as the
Play at end and
S/v.

The more line is too
Prior to the graphics
Environment
The criteria established was a synthesis of these positive features. Some of the basic parameters established were as follows:

- development of an uninterrupted promenade along the river. The promenade should interact with various functions along its path, yet retain its integrity as an individual element.

- establishment of Wisconsin Avenue as the dominant site entrance with Thomas Jefferson, 31st and the east side of the promenade as secondary entrance points.

- elevation of building ground plane above the flood level, providing for lobbies and atriums, as well as elevator and stair shafts down to ground level.

- establishment of pedestrian entry nodes at the base of Wisconsin and 31st Streets.

- development of a river inlet/focal hub.

Many basic parameters deal with site organization and massing. These are best explained in the graphic presentation on page 31.
Solution
This leads us to an explanation of the finished solution. While at this point I still had a long road to follow in order to arrive at a final proposal, working within the established framework greatly limited my choices and simplified the process. Not to say that this in any way impeded or limited creativity; rather, it gave a direction to various unrelated ideas.

My ideas were easily formulated into various conceptual schemes. As is often the case in a design process, however, the translation of these criteria into a physical design proved an extremely arduous task.

After considerable anxiety and frustration, an occasional curse and a few late hours at the studio, rough solutions began to appear. Let it suffice to say that these initial schemes, although often awkward, were attempts to satisfy the established goals. A slow process of refinement of these schemes led to the finished proposal. I will concentrate on an explanation of the final solution in an effort to clearly communicate and justify my decision-making process.
I will first address the general organization in my explanation of the design. To simplify references to particular features throughout this explanation, a site key has been prepared and is located on page . Please refer to this as necessary.

The building organization, of course, reflects the functional parameters laid down early in the design. The retail/eating complexes are located at the western end of the site, near the main site access points. (Entrance E1 as primary and E2 as secondary entry) The complexes work together in a dynamic way to define a central hub, creating a sense of place along the river.

A circular plaza forms a strong point between the two structures. The elevated plaza becomes an important focal point at the pedestrian level and helps to give visitors a sense of orientation. The plaza serves as a bridge between various open spaces on the site as well as an entrance into either retail complex.

The building complexes themselves are each set back in a series of tiers, allowing a number of exterior decks to open onto the plaza. This stepping of the forms helps to emphasize the centrality of the plaza in elevation, as well as to break down the mass of the buildings themselves.
A fountain is also introduced to emphasize the plaza as a focal point. Water is allowed to flow freely under the "elevated ground plane", and cascades down a series of dynamic forms which follow the slope of the surrounding stairs. The water continues to flow through the central hub area, and appears to continue into the harbour. The water actually is screened and pumped back up into the fountain, forming a continuous cycle.

The chasm created by the water running through the site reflects the break between the two retail complexes. Block forms and seating areas extending into the fountain allow the more adventurous a direct interaction with the water. The ambient sound created also provides a soothing background to the potentially noisy area, and again serves to reinforce the central plaza as a main focus.

The hotel is isolated to the west of the site for reasons of privacy. Its two singly loaded corridors reach out to envelop a large open expanse of park, as well as provide tremendous views for its guests. Support and vehicular circulation are largely oriented to the north of the hotel underneath the freeway. The south side is left open for a pool area and outdoor facilities. Privacy is achieved through a gentle berm which rises back up to the elevated ground plane, as well as through various landscaping features.
Despite the richness and diversity of choices provided, the circulation patterns on the site have been made clear and recognizable. The riverfront promenade, along with patterns developed in and around the retail complexes, forms the main pedestrian circulation spines on the site. Pedestrians entering the site from Wisconsin Avenue may choose to enter the retail complex directly or to continue down to the river promenade. The beginning of the promenade is marked by an open air tower, which is sited on axis with the Wisconsin Street entry. The tower serves as a beacon as well as a point of orientation.

Visitors entering the site at the base of 31st St. have direct access to the central plaza by means of ramp or stair. From this point they are clearly oriented and presented with numerous options from which to choose. Motorists utilizing the site will be directly oriented to the central plaza as well, whether they park across K Street or in the facilities provided behind the hotel.

Although walkways and plazas have been located throughout the site in anticipation of the major circulation patterns, the site has been largely left open to allow visitors to wander freely. These open areas will allow groups of friends and workers to gather at lunch hour as well as just general recreation. It was thought that lawn chairs could be provided in the daytime to encourage use, a practice common to park areas in England. The open areas could also be utilized as a "stage" for small concerts on the river, which could be an effective and enjoyable technique to draw weekend shoppers to the area.
CENTRAL PLAZA
The riverfront promenade is the most dominant circulation feature on the site. As it is intended to connect with existing recreation paths which currently lead both down to the mall and out along the canal, a good amount of recreational "through traffic" can be expected along the trail. It is the intention of the promenade design to give these users and others an uninterrupted path along the river, while at the same time giving ample opportunity and in fact encouraging the use of the commercial facilities.

The beginning of the promenade presents a crisp, linear edge to the river, reflecting the geometry of the central hub. Lampposts at 20' on center draped with string courses of white lights further accentuate this edge and lend a sense of rhythm to the progression. At night, these lampposts would cast a subtle glow along the promenade itself, and mark the river's edge with a crisp band of white light. Deep shadows and reflections off the water would transform the mood of the promenade, giving it a very different character from that of a daytime thoroughfare.
The linearity of the promenade is interrupted by the introduction of a small semi-circular harbour. The small sail and motor boats anticipated in the harbour should create an exciting visual focus to the commercial development. In addition to this, the harbour re-directs the promenade back into the site, funnelling pedestrians toward the retail complexes and giving them every opportunity to use the facilities. This break in the promenade progression helps to lend identity to the central hub and establish the area as a "place" or an "event" on the site. In addition, it encourages use of the commercial facilities, thus enhancing the economic vitality of the development.

As the promenade continues past the commercial area, it takes on a different character. The path turns slightly inland, and the tight geometry and crisp edge are abandoned in favor of a more naturalistic expression. The promenade here reflects the gentle, flowing character of the park space through which it travels.

The final "point" along the promenade is a pavilion located to the south of the hotel. Here the path splits, one route leading off the site and connecting with an existing trail, the other extending down the peninsula defined by the Potomac River and Rock Creek. The peninsula has been heavily wooded and left virtually undeveloped in an effort to create a "quiet back" to the site, for those people who enjoy the tranquility of an isolated area or one looking for a quiet nap in the shade. The large mass of the Watergate within immediate proximity of this area also discouraged its development.
The pavilion itself would be an open air structure providing seating and public fountains for joggers and hikers along the trail. At other points along the promenade seating areas would be provided, as well as stair steps and grading which would actually lead down into the water, allowing the user a direct interaction with the river's edge.

Users are also given the opportunity to actually get out over the water by means of a pavilion which is "thrust" outward from the central plaza. The extended pavilion would create a dynamic silhouette from the shore, as it is viewed set against the wooded backdrop of Roosevelt Island. Functionally, the pavilion serves as a dock area for the Potomac River tour boat. A souvenir shop and tour boat ticket office are also housed within the structure itself.

Concerning vehicular traffic, a concerted attempt was made to achieve a total segregation of vehicular and service access to the site. A screen facade which cuts across and buffers the noisy eyesore of the Whitehurst basically divides the site into two distinct areas, these being a park zone and a zone for facilities service and support, located to the south and to the north of the screen, respectively. In addition to this segregation, the facade reclaims an unused corner of the freeway and utilizes it as an enclosed tourist information center.

The screen is punctured at one point by a service street leading to complex B. The service street is required by functional necessity, and is downplayed in the actual design. The road will only support a minimal amount of vehicular traffic, and will impose no formidable barrier to pedestrian circulation.
At this point I will attempt to address the planning considerations of the building complexes themselves. The main emphasis here was placed on the refinement of the commercial complexes. The hotel, although comprehensively master planned, was not developed beyond a schematic level.

Retail complex A, located to the west of the site along K Street, organizes its shops and circulation network around two atrium spaces. The largest of these two atriums is defined by a skew between the river's edge and the city grid. This area acts as a strong ground level connection between interior and exterior, and gives users the option to continue out into the park or to explore the various shops and restaurants within the complex.

To assure activity at the ground level, a flea market is proposed at the atrium floor. Cars and trucks would have easy access to this area, as they would have the ability to actually drive out into the atrium through a series of decorative rolling doors which connect the atrium to the adjacent ground level parking facilities.
A transparent facade defines the south edge of this atrium space. The facade accentuates the dynamic views to the river, and acts as a "screen" separating interior from exterior. The wall itself is constructed of a sheet glass curtain system hung off of exposed structural members. These two components are played against one another to give a sense of three dimensionality and articulation to the wall itself. Structural elements are played against each other in a simple yet elegant manner. The minimalist expression lessens the impact of the wall itself and heightens the notion of spatial continuity. A solar blind system would need to be installed as well, for the purposes of sunlight control and efficient energy management.

Another possibility for the treatment of this facade would be to continue the space frame, which currently spans the atrium ceiling, down through the wall. This option was considered, but it was thought that the continued space frame would detract from the integrity of the facade as an individual element or free-standing screen. The utilization of the space frame would, however, lend perhaps a necessary sense of unity to the atrium space as a whole. Either solution could most likely have been effectively implemented.

The second atrium is basically a twenty-foot square shaft that penetrates the building, connecting all four levels. In addition to admitting natural light, it acts basically as an organizational element. Retail shop circulation and access are organized around the atrium on all three retail levels. In addition, escalators are hung in the atrium to provide clear and easily distinguishable vertical circulation. The escalators connect all four levels, including the parking level at grade.

The various floor levels tier back to expose balconies, circulatory and eating areas to the atrium. Where possible, floor spans have been punctured as well, opening various views and lending to a feeling of spaciousness in the shopping areas. Bright canopies, dynamic forms, natural light and exceptional views all add to the vitality of the shopping areas within the complex.
The building is organized on a thirty-foot bay grid. A waffle beam system spans between reinforced concrete column supports. Mechanical systems are incorporated within the waffle grid, while primary air movement ducts are left exposed in the atrium.

The design of the second retail complex, complex "B", differed from the first complex in some fundamental respects. One of the greatest differences lay in the fact that complex "B" needed to be responsive to park space and circulation patterns on all four of its sides. Unlike complex A, which backs up into the Whitehurst, complex B is surrounded by activity. Outdoor decks, stair connections and building arteries were designed in recognition of this fact.

Despite this basic difference, which resulted to some extent in a certain disparity of form, common elements are carried through to unify the two structures. The skewed angle which defines the main atrium space of complex A is extended through to complex B in the form of an entry penetration. Similarly, the building tiers back from the central plaza, directly reflecting the form of complex A. The treatment of details, materials and basic articulation of space all help to create a common vocabulary, reinforcing the unity between the two structures.

The basic organization of complex B again differed from complex A in that its primary thrust was toward eating rather than retail facilities. The central space of complex B consists of two levels of retail and eating shops, arranged such that they overlook a two-story mar-
ket area where a diversity of food stands are located. A circulation spine along the second level overlooks this food market. The spine is easily accessible from the ground level as it is connected at the north and south ends by escalators and stairs, respectively, in addition to a ramped connection with the central plaza.

The food market in this complex is anticipated to generate a tremendous amount of lunchtime activity. As only limited seating will be provided indoors, it is anticipated that the majority of users will enjoy their lunches at the various parks and plaza spaces provided throughout the site. Numerous outdoor decks, as well as a continuous strip of "stair seating" along the river side of the complex, are designed to meet this demand.

The ground level in complex B is used for boat storage as well as for provision for parking and service. Since the flood plane poses little or no threat to a temporary storage facility, this function was one of the few allowed to occur on the ground plane. It allows for secure storage of boating equipment, and easy access to the launching area. The facility will be used to store small sailboats and skulls. Private elevators connect the storage area with a locker room facility on the third level.
Also on the top level, a small maritime museum provides an additional attraction. The museum is serviced by a clearly exposed elevator shaft and is easily accessible to the public. A 16' diameter glazed skylight is centered over the entrance lobby, where the most striking exhibits would be displayed. The museum occupies the building's third level in order to take full advantage of the exceptional views.

An elevated restaurant is located at the southeast corner of complex B. The restaurant was designed almost as an appendage to the rest of the complex, and was intended to invite use by the hotel guests. In this respect, the restaurant would serve as an interface between the public facilities of the commercial development and the semi-private facilities of the hotel. The restaurant is raised on its piers to allow a continuation of views at the pedestrian level and to lessen the building's bulk.

The organization of the hotel centers around the extension of two main wings of rooms, which generate from a central knuckle defined by the hotel lobby. The hotel wings reach out and envelop a large park space, which is gently defined by the subtle geometry of the wings. The hotel opens to the southwest, enjoying the sunlight and views, and at the same time recognizing the commercial complex at the center of the site.

Circulation, service and vehicular access occur on the north side of the hotel. The hotel is basically closed to this side, as it serves to buffer the obtrusive freeway immediately to its north. Hotel parking and vehicular circulation are organized underneath the freeway. Additional parking is provided in a structure at the corner of 31st and K. (see site plan).

Employee service and guest access to the hotel are segregated by means of a level change. Hotel guest traffic is ramped up to the "elevated ground plant", where they enter the lobby space at the first level. Service access and employee parking are allowed to happen underneath the building at the ground level.

The rooms are organized in a linear fashion, and are singly loaded in order to exploit only the best views. Each room has a balcony with a view of the river and the rest of the complex. The rooms are spacious and would contain all the amenities.

A certain amount of variety was introduced into the hotel room wings in order to break up the progression through the corridor. Each linear extension of rooms is broken at one point by a ten-foot shift in the corridor. The shift creates a break in the rooms, allowing for outward views as well as an outdoor deck/lounge area to the south and fire stairs to the north. Carefully placed fenestration along the north wall as well as privacy alcoves at each room entrance further help to break up the corridor.
Throughout the design of the riverfront site an attempt was made to create spaces for people. Massing, organization and detailing were all aimed at creating a diversity of experiences which would work together to enhance the interaction between people on the site. The entire complex was designed to be dynamic yet precise, introducing diversity while at the same time presenting it in a clear and straightforward manner.
View of retail from south
View of retail from north
Recent years have witnessed a growing awareness of the important role waterfronts play in an urban community. Rivers and lakes provide a soothing release from the noise and congestion inherent in a tight urban community. Proper exploitation and development of such natural amenities as lakes and rivers can provide an added attraction to any downtown area.

In the first half of this century urban waterfronts were viewed largely as an eyesore to be hidden where possible. Docks, warehouses and cranes cluttered the shorelines. Although the movement of goods is still a necessary function in most areas, the opportunity for recreational use in addition to shipping is now being recognized. Many waterfronts largely ignored throughout the 40's and 50's have recently been developed. Some of the more successful of these examples are documented on the following pages.
"Harbourplace" in Baltimore was another successful development by Thompson and Associates. Mr. Thompson claims that the development is not an attempt at any particular style; rather it is a direct reflection of solid thought.

One of the major assets of this development is the sense of aquatic market, a unique atmosphere created through the use of exposed materials and the almost unfinished feeling of the interior. The lacy, transparent quality of the entry porticos enhances this atmosphere.

The organization of the buildings themselves helps to define a central plaza area along the river. Extensions out into the river, as well as a floating museum, help to add vitality to the plaza itself.

Benjamin Thompson cites one important component behind the success of the Baltimore Harbour as being the proximity of other attractions near the development. Strong circulation connections were established with the surrounding community, a notion which is certainly applicable to the Georgetown site.
Unfinished quality of the interior

Context
San Antonio's river walk provided a working model of a successful river promenade. Although the scale of the river and the surrounding buildings is considerably less than that of the Georgetown site, numerous similarities exist.

The success of this promenade reinforces the notion that people are attracted to water in an urban environment. The subtle intricacies of the walk, as well as the lush vegetation present, also help to attract people to the walk. Small shops, restaurants and offices are located tastefully along the path.

The San Antonio walk is very similar to the existing canal which cuts through Georgetown. The San Antonio walk is subtle and self-contained with limited views and well-defined circulation. All these characteristics add to a natural intimate quality, providing a relief from the urban downtown area.
Character and scale

Steps as level connection and seating

Proposed River Corridor Plan
1. Flood Control
2. Open Space/Recreation
3. Access
4. CBD Retail
5. CBD Offices
6. Visitor Services
7. Internal Circulation
8. Housing
The design for Battery Park, New York City, presented a precedent for the Georgetown development not as much through its character as through its methodology and approach toward problem analysis. Through a complete visual analysis and a circulation study, development parameters were established for the site. Individual contractors were then freely allowed to proceed while working within these parameters.
The Boston Harbour market is a unique mixed use renovation designed by Benjamin Thompson and Associates. The complex consists of a linear arrangement of shops and offices which terminate in a portico form. A central dome breaks this linear arrangement and creates an activity node within the complex itself.

The layout of the facility is very similar to Covent Garden in London, also a successful market. In each of these schemes, the arcaded facades, along with the abundance of commercial complexes and activities, lend a sense of vitality to the exterior plazas. Temporary and removable awnings, as well as the abundance of street vendors, add to this vitality.

The use of temporary awnings and movable retail "booths" was an idea borrowed from this scheme and incorporated into the Georgetown complex. This allowed temporary retail to fall below the flood plane and greatly enhance the vitality of the ground level.
The idea of vertical space as an activity node was also incorporated into my final solution.

Temporary awnings above market

aerial perspective
Appendix B

COMMUNICATION
TECHNIQUES
The following is a documentation of a research project developed in conjunction with my thesis. The project was entitled "Structured Communication as a Design Tool", and was aimed at establishing a systematic process for the communication of ideas.
Problem Statement

A tremendous number of structures currently being built in our cities and towns ignore key issues and ideas essential to the creation of a valid architecture. Intolerable social and deficient psychological environments are springing up throughout the country, due largely to the poor quality of communication between architect and user. Good communication, along with a logical system to receive, organize and analyze information, is essential to a successful design process. All too often, however, the factors of time, economy and inconvenience prevent the assemblage of the necessary experts required to develop and implement a strong design scheme. As a result, information often becomes disorganized and the designer ends up with an array of incomplete and conflicting input from a number of different sources. Needless to say, this situation can lead to wasted time and money. Perhaps less obvious, however, is the detrimental effect this has on the architect's decision-making process, often leading to insensitive and sterile responses to a community fabric.

This proposal addresses the inherent complexities involved in establishing strong and economically viable lines of communication between designer and client in cases where a physical separation between the two exists.

Objectives

My objective in this study is to establish a system whereby design concepts and proposals can be quickly communicated to a number of persons of varying backgrounds. The system will incorporate a method of standardized feedback from the individuals, allowing them to constructively communicate their ideas and impressions upon analyzing these proposals. The designer would then be able to easily digest and draw conclusions from this information.

The process will draw from and expand on the ideas laid down by William Pena in his book "Problem Seeking". The design process would develop as follows:

1. The designer would make a preliminary visit to the site to gather essential information. In addition to this, through an initial series of interviews and research, the designer would gather information on building function, desired size, zoning codes and utility requirements.

2. The designer would then assemble a team of individuals who would collectively possess an intimate knowledge of building, site, and community requirements.

3. Based on the rough information received during his preliminary visit, the designer would begin to develop various schemes and proposals in sketch and model form. These concepts could then be reduced to a quick, reproducible graphic presentation to be distributed to the assembled team.

4. The designer would next develop a questionnaire to accompany this graphic presentation. The items would be designed to address key factors such as physical, environmental, social and contextual considerations. The questionnaire would allow the team members to record their ideas in a well-organized manner.
5. The final step would consist of an analysis of the information accumulated through these questionnaires. Points where strong consensus lay would become a "criteria for design". Through this process a series of criteria (essentially a list of do's and dont's) could be built up, thus establishing a solid framework for a strong design proposal.

This approach differs from Pena's problem seeking method in that it does not demand that all problems and considerations be defined prior to the beginning of the design process. Rather, it uses design proposals as a vehicle for discovering problems and site considerations. With a small amount of design information, a series of very general design proposals and conceptual sketches can be made. Through a close analysis of reaction to these proposals, the designer can gain an understanding of what is "right" and "wrong" for the site, and thus develop a strong and economically vital design.

Procedure

I would like to implement the described process in my architectural thesis project, which is located in Washington, D.C. I propose to assemble a "team" consisting of various architects and residents of Washington, as well as professors and students here at the university. Due to personal time constraints, I will limit the team to no more than eight persons. Proposed team members from Washington, D.C. include:

1. Mr. Jeffry Carson, review board member
   Fine Arts Commission
   Washington, D.C.

2. Mr. Joe Prefontaine, designer
   Environmental Planning & Research (architects)
   Washington, D.C.

Concerning a finished product, I intend to produce a spiral-bound pamphlet documenting the process as applied to my thesis. The pamphlet would include:

1. A detailed description and outline of the process itself.
2. A documentation of the process as applied to my architectural thesis.
3. A summary/analysis of what I found to be the advantages and the disadvantages of the process as applied to my thesis design.
4. A forecast of the possible implementations of the process along with a brief estimation of the economic benefits to firms employing this methodology.
The third step, a review of the process as applied to my thesis, will be the most difficult to attain. To insure an objective analysis, I propose the following:

1. I will first develop a series of design proposals and conceptual sketches, sending these off to the assembled team (as described previously).

2. Prior to analyzing any feedback from the team members, I will individually synthesize my ideas and concepts, developing the overall design accordingly. I will then go through the analysis process on input I have received back from team members. Through ideas and parameters set up by this additional input, a second design scheme will be developed. Through personal analysis and outside criticism of these two schemes, I will be able to draw conclusions as to how the team process has altered, enriched or detracted from my design and why.
GEORGETOWN WATERFRONT

A PROCESS ANALYSIS TO AID PROJECT DEVELOPMENT

Prepared by Timothy Gray
Architectural Thesis
March 13, 1984
The following is a summation of research done in the field of "structured communication as a design tool". As this process was developed and applied with respect to my architectural thesis, I will document it as such.

The process, that of maintaining a structured correspondence with experts in various locations, proved to be a valuable asset to my project development in many respects. As I was receiving feedback from numerous persons, I was able to accumulate a wide range of ideas and opinions. This helped me to develop a more objective view of the project. I also found that in the majority of cases, "team members" agreed with a strong degree of consensus on given points. In the few cases where the group consensus was at odds with my personal opinions, it caused me to re-evaluate my own thoughts. Fortunately, however, in most cases group consensus reinforced my own opinions.

Although in the preceding respects, the process proved an asset to project development, there were negative points concerning its implementation. One of the greatest drawbacks was the time lapse between sending material and receiving feedback. At best, due to the limitations of the mail, this would take six days. Often, however, inaction on the part of the questionnaire recipients would increase this time lapse up to two or more weeks.

A second problem with this communication process lay in the difficulty of clearly communicating design intent. I found myself at times spending more time documenting the project than developing it. Without the benefit of direct verbal communication it proved difficult to clearly express design intent. Recognizing this fact, I tried to gear questions to address broad rather than specific issues.

The development of an effective questionnaire was also a concern. The final questionnaire format was established through an evolutionary process. Initially, "checklist" sheets were sent along with various proposals. The proposals were in the form of intent sketches and photographs of massing studies at an early schematic level. Due to the unspecific nature of the proposals, as well as the generality of the evaluation categories themselves, I found critics more apt to write out impressions rather than fill out the checklist. Although this feedback was helpful, it did not allow me any means of correlating the results. This led to the development of the final format, which consisted of a single "package of information". The package consisted of a quick one-page explanation of design criteria as well as a graphic documentation of the proposed solution. The design solution, although still schematic, was far more developed than previous solutions. The questions were generally specific and direct, and space was allotted for written comments as well as a numerical response. This format proved a far more successful means of gathering information.
The following pages contain a preliminary as well as a finished questionnaire along with a sample response sheet. The final page contains a tabulation of the mean results of the eight persons polled. Of course, this process could be applied to a much broader range of people for even better results.

**CHECKLIST**

<table>
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<th>RATING</th>
<th>COMMENTS</th>
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<td>Good</td>
</tr>
<tr>
<td>Parking</td>
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<td></td>
</tr>
<tr>
<td>Reaction to sunshine</td>
<td>Excellent</td>
<td>Good</td>
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<tr>
<td>Reaction to freeway</td>
<td>Excellent</td>
<td>Good</td>
</tr>
<tr>
<td>Climate response</td>
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Preliminary questionnaire.
Over the past several months many factors have been considered and many avenues explored in the design of the Georgetown Waterfront. Through this process has come the architectural proposal enclosed within. In an effort to provide the reader with basic background information on the history of the project, I will briefly list the overriding criteria which have helped to shape this particular solution.

One main criteria established early in the design was the development of a series of connected yet independent and separately oriented park spaces along the river. In this sense the design of the built environment became almost a secondary element, used to help define positive outdoor space along the river. At the same time, for obvious economic reasons, it was important to maintain a strong link between the pedestrian park spaces and the retail complexes.

A second criteria which directly affected the form of the entire complex was a reaction to a ten foot flood plane across the site. All rentable area has been raised twelve feet off the ground. This creates an "elevated ground plane" on which the building complexes sit, allowing parking, service and limited storage to fall in underneath. A series of atriums and stair steps fall down to the ground level encouraging access into the buildings.

A third criteria of major importance was the desire to create a strong riverscape along the Potomac. A bold and exciting play of forms and spaces along the river is intended to give the currently drab and decaying riverscape a sense of integrity and strong identity.

One final element which exercised a great amount of control in shaping the solution was the Whitehurst freeway, an elevated four lane highway forming the north boundary of the site. While attempting to reinforce and strengthen existing pedestrian ties to Georgetown proper, the solution must also attempt to screen off the noisy eyesore of the Whitehurst.

These criteria have all been addressed (with varying degrees of success) in the attached proposal. Your cooperation in filling out the questionnaire provided along with any additional comments you may wish to include is greatly appreciated. Your input will be used to further develop and refine the solution.

I thank you for your time and interest.
Key

- a RETAIL COMPLEX A
- b RETAIL COMPLEX B
- c OBSERVATION TOWER
- d HOTEL
- e WHITEBURST FREEWAY

E1 INDICATES SITE ENTRANCE
p1 INDICATES PARK AREA

 north
View from west

View from south
Please mark a response to the following questions ranging from one to five, one indicating strong agreement, five indicating strong disagreement. N.O. indicates no opinion.

1. I feel that this scheme is appropriate to the riverfront site.
   1 2 3 4 5 N.O.
   Comments: ITS GOING IN AN APPROPRIATE DIRECTION.

2. I feel that this scheme offers a variety of positive public outdoor spaces along the river and exploits the river to its fullest.
   1 2 3 4 5 N.O.
   Comments: 0 - IT PROMISES TO OFFER THIS 1 - THIS STILL NEEDS TO BE SHOWN. TOWPATH, MOORINGS RIVER, AUDIENCE SPACES.

3. I feel this scheme would lend a sense of strength and integrity to the Potomac riverscape.
   1 2 3 4 5 N.O.
   Comments: WITH RESOLUTION OF COMPLEX IN PANORAMA OF RIVERSCAPE.

4. I feel that the glazed atrium in retail complex A (see site key) would be successful in encouraging visitors to enter the complex.
   1 2 3 4 5 N.O.
   Comments: THERE MAY BE A DILEMMA HERE - PEOPLE MIGHT WANT TO ENTER THE RIVER AREA FIRST THEN THE COMPLEX.

5. The circulation patterns on the site seem well organized and clear.
   1 2 3 4 5 N.O.
   Comments: FROM WHAT I REMEMBER (THESE NOT SHOWN IN BROCURE) THE CIRCULATION DOES NEED SOME DEVELOPMENT AND RESOLUTION PEDESTRIAN/VEHICLES.

6. I feel the hotel complex would be well patronized.
   1 2 3 4 5 N.O.
   Comments: ARE YOU TAKING BOOKINGS?

86
7. I feel that the retail/eating complexes would be well patronized.

   1 2 3 4 5 N.O.

   Comments:
   You might see the Slide Tray in the Library on Ghirardelli Square, San Francisco (L. Halperin).

8. I feel that park space P2 would be most heavily used. (Refer to site key)

   p1 p2 p3 p4 p5 N.O.

   Comments:
   Access & Express to and from Wis Ave.

9. I feel that park space P4 would be least heavily used. (Refer to site key)

   p1 p2 p3 p4 p5 N.O.

   Comments:
   Semi private area of Hotel. (layout should incorporate hierarchy of spaces from public - semi private)

10. I feel that most people will enter the site from E1. (See site key)

    E1 E2 E3 E4 E5 N.O.

    Comments:
    Main connection

11. I feel that retail complex ___ would attract more customers. (See site key)

    A

    Comments:
    They would attract the same between these N.O.

    B

    General Comments:
    The combination of pre-coded and open ended questions is suitable. Avoid questions that are too general: you want to illicit constructive reaction to illicit constructive reaction and specific insights for the development of your project.
## QUESTIONNAIRE RESULTS

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<td>7</td>
<td>2.06</td>
<td>1</td>
<td>4</td>
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</table>

8. P2 was cited as the favorite park space by a strong majority. Reasons given were orientation toward sunlight and the river as well as proximity to activity nodes.

9. P5 was chosen to be the least used park space by a majority of those questioned. Its isolated location was the reason given. P3 ran a close second, due to its shaded location and limited view.

10. Entrances E1 and E2 were chosen as the most heavily used. Entrance E1 was picked first, due to its location along Wisconsin.

11. This was the lone question which failed to establish a consensus. The responses were evenly distributed between the four answer choices.
conclusions
SUMMARY

The preceding project represents one academic year of work, and is the culmination of five years of architectural study. Although it is sometimes frustrating to think that this amount of work has been purely academic, I feel that the rewards have been great and that it was well worth the time and effort spent. Working with this project has helped me to better realize both my abilities and my limitations as an architect and designer. It has also helped me to gain a certain amount of confidence and personal respect, as well as a better understanding of my goals as a professional.

Most importantly, rather than mark the end of an education, the completion of this thesis marks only an intermediary point in the continued pursuit of further understanding.
CREDITS

I would like to thank my studio critics Stan Mendelson and Dan Woodfin for their insights throughout the development of this project. Their ideas and encouragement have helped me greatly.

I would also like to thank Jeff Carson and Charles Atherton of the Fine Arts Commission for the time and effort they spent helping to orient me to the needs of the site. Their enthusiasm and support was greatly appreciated.

Thanks also to outside critics Tony Costello and Joe Prefontaine.

Finally, thanks to all my studio pals for making the whole thing a zoomer of an experience!