New Albany Riverfront Development

A thesis inquiry into the reconnection of the city environment and the river environment using recreation as the means of integration to promote revitalization.

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Thesis Introduction

Historically, towns were built along rivers because of the commerce and transportation link they provided. Industry filled the riverfront areas separating the town centers from their rivers. Today, rivers are no longer the symbol for commerce, and gone with it is its industry. Left behind are vacant industrial facilities in some cases, and in others, new barriers such as railways, expressways and or floodwalls have filled their absence, which have caused riverfront areas to be fragmented and isolated from town centers.

The subject of this thesis looks at that connection between rivers and towns. It hypothesizes what the river symbolizes to people in this age, and how its development may enhance the connection between towns and waterways. It addresses the potentials of these elements to revitalize each other and the provision of a strong focus and strong sense of place, identity and pride that its citizens can be proud of. This theory will be tested by the completion of a project located in New Albany, Indiana which is situated on the banks of the Ohio River.

Summary of Contents

The thesis represented by this book explores the evolution of the connection between rivers and their cities and towns. This subject of study and its conclusions are presented in both text and or graphic diagrams and drawings. Thesis and project are presented separately in some cases and together in others to try to show the process used in exploring and researching this thesis. The book is comprised of three major sections representing the chronological order in which this thesis was executed. Each of these divisions represent a broad heading that contain several sub-headings. The sections are in order: Research & Conclusion, Schematic Design, and Design Development. The Appendix is added as the fourth section. It contains documentation of interviews, research, proposals, analysis and conclusions from the other three divisions. It also reveals insights into the true evolution of the thesis process and ideas that the preceding divisions generalized over.
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Preface

Thesis Introduction ........................................... 1
Summary of Content ........................................... 1
Acknowledgements............................................. 2

Chapter 1 Research & Conclusions

Thesis Positions and Implications ............................ 4
The Subject and its Context ................................... 5
Procedures and Processes ..................................... 6
Project Program .................................................. 8

Chapter 2 Schematic Design

Site Analysis ..................................................... 9
Site Selection Criteria ........................................ 13
Schematic Site Design Options ................................ 14
Contextual Design Influences ................................ 24
Initial Building Concepts ..................................... 32

Chapter 3 Design Development

Building/Site Relationship ................................... 34
Architectural Concepts ....................................... 37
Site Planning .................................................... 40
Final Design ..................................................... 45
Thesis Insights and Conclusions ............................. 57

Chapter 4 Appendix

Bibliography ..................................................... 60
Proposals ........................................................... 62
Interviews ......................................................... 70
Program .......................................................... 76
Building Analysis .............................................. 79

3
Chapter 1  Research & Conclusions

Thesis Position and Implications

Over the past decades, there has been a tendency for many river towns and cities to neglect one of the most important elements in their early growth: the river. Many towns and cities appear to have turned their backs to the river, denying it from being a major part of its identity and fabric. In recent years the potential of the river environment has been realized in its historical heritage, its natural character, and its aesthetic contribution to the urban landscape. This thesis addresses these issues in the following propositions:

1. The reclamation and development of riverfront areas adjacent to town centers will contribute to the revitalization of the downtown areas, first by having a zone of vitality in that area by providing aesthetic views, focal points and activities, and secondly by developing the river for what it can symbolize in the concept of recreation.

2. By selecting emerging programmatic options such as physical, social and health recreation that users of all ages have a growing interest in, and that is compatible to the site, the revitalization and expansion of the urban fabric is ensured.

The objectives of this thesis are mainly concerned with exploring principles and approaches in the integration of an element of the natural landscape, the river, with the built environment and urban fabric of a city. The goals are to: maximize the potential for recreation to occur, create a wider urban experience and diversification to attract people downtown, and potentialize the integration of the river environment and built environment.

In this thesis I want to make clear that my definition of 'recreation' is not 'sport' as it is typically defined, but it is the emerging definition which defines it as play or fun. This includes any passive activity such as the theater, shopping, swimming, or dancing. A person can either be a spectator or a participant. The importance is that people are participating for enjoyment and because they want to, not because they have to.
The Subject and Its Context

When the United States was being settled, the first towns were generally established along major rivers, such as the Ohio and Mississippi Rivers, because of the commerce and transportation link they provided. The riverfront areas became the nucleus of these towns from which everything revolved. It was the place people worked, traded, and socialized. This era peaked in the 19th century at the height of the steamboat period, and slowly diminished as the popularity of the railroad for transportation and commerce grew, causing the river to lose much of the importance it once had. By the beginning of the 20th century, the railroad had invaded the riverfront areas connecting to the industry already established by the rivers, and with the rise of the industrial revolution, the amount of industry grew until riverfront areas became dominated by industry. It was the place for people to work, trade, and socialize, but much of this activity had shifted farther into the town denying the river the focus it once had.

The 1930’s and 1940’s brought about some major changes. First were the advances in technology, such as the automobile. Its importance for the transportation of goods and people began to overshadow the railroad just as it had done to the river years before. Industry no longer totally depended on the river or the railroad and started to move away from riverfront areas and establish itself elsewhere. Left behind were abandoned factories, shipping docks, and railroad stations that started the demise of these riverfront areas.

The other major change of this era was a result of the 1937 flood that devastated areas along the Mississippi and Ohio Rivers. The United States Government took preventative measures to try to eliminate the chances of this occurring again by changing the responsibilities of the U.S. Army Corp of Engineers to include flood control in addition to the navigation of rivers. They in response constructed earth levees and concrete floodwall along these rivers to protect low lying areas especially around cities. These flood control devices in many cases became barriers that served to separate rivers from towns both physically and visually.

Towns, from that time on until the present, grew with their backs toward the river. The two became almost totally disconnected from one another. The vitality of town centers declined as its retail stores and businesses established themselves on commercial strips on the outskirts of the towns. Riverfront areas became dead end zones where very few activities occurred. The main use of the river was by large traffic. It became only a visual element for people and not a physical one.

Today, the impacts of the industrial boom of the first half of the 20th century have begun to wear off. People are holding a higher regard for the historic traditions and aesthetic aspects of the environment. They have more free time and are enjoying life more in recreational and leisure activities. Water activities are included in this group and their popularity have increased to include a large portion of the population. It has given the river a wider meaning. It is now more of a symbol for recreation. Everything around it has the potential to take on this expanded meaning too, especially the riverfront areas.
The technological and engineering concerns of flooding that served to separate the riverfront areas from the urban areas do not have to dominate the relationship between towns and rivers. The approaches of the technological and engineering disciplines can be combined and integrated with planning and architectural disciplines to explore ways of meeting the needs of environmental design to bring the town and river environments together while at the same time anticipating and providing protection from flooding emergencies.

Several cities and town have or are in the process of developing their riverfront areas. Some good examples are San Antonio, Texas; Baltimore, Maryland; and Boston, Massachusetts. They are three cities that have successfully integrated the natural and built environments. Their programs have mostly included mixed use leisure activities that try to incorporate both indoor and outdoor use. In most cases they are very expensive ventures that require the full support of the community. Normally they are developed in several phases to reduce the initial cost, and to allow the town (or developers) more time to acquire revenue. In any case they are a extremely difficult task both economically and politically to accomplish.

Procedures and Processes

The process employed in this thesis has been related to two categories of study; inquiry and resolution. Inquiry was applied separately to the two distinct parts of the thesis, the thesis statement and the project used to prove or disprove it. In the next step, resolution, the two parts were brought together to synthesize the conclusions of ideas and issue established from each side before proceeding to the next phase of development.

Inquiry was accomplished through; interviews with experts in the fields of Architecture, Landscape Architecture, Urban Planning, and Engineering, and with community officials and citizens; research of publications; and experimentation in design. It included the following topics:

- The historical evolution of the context of river towns
- The existing context of the river site at New Albany, Indiana
- Trends in recreational development
- Recreational needs and desires of New Albany
- Building Analysis
Conclusions were drawn from the inventory and collection of data and its analysis in order to develop programmatic needs, site analysis and conceptual approaches.

Resolution included identifying criteria, and a finalized program and translating this into design scenarios for response at the preliminary, development and final design stages.

Inputs on design were from Thesis Critic Stan Mendlesohn, Landscape Critic Les Smith, Outside Thesis Critic Harry Eggink, and Landscape Architect Eric Ernstburger of Rundell Ernstburger & Associates of Muncie, who is originally from New Albany.

The procedure of design followed to develop the project after the initial analysis and program were established was to first look at different site development options in connecting the river and town fabrics, select one of these and develop a master site plan for it including views, focuses, vehicular and pedestrian circulation and interior/exterior programmatic organization. The next step was to develop a conceptual site approach and then take and develop a portion of it in greater detail to express the connection in architectural form.
Project Program

The program of this project was established through interviews and information obtained in the city of New Albany. These interviews included the offices of the Mayor, City Planner, and Superintendent of Parks and Recreation. They provided a mixture of information that expressed their different offices and viewpoints which is necessary for a mixed use project of this type. Their interviews along with other are documented in the appendix section of this book.

Programmatic functions are either interior or exterior and represent one or more of the following aspects of recreation: social, physical, leisure, educational and therapeutic. Major exterior activities defined included a marina, ice skating rink, market area, amphitheater, and a variety of small and large group spaces. Buildings defined in the program were: a community recreational center featuring a sports hall, leisure swimming pool, racquetball courts and a variety of community-oriented service and activity spaces for people of all ages; a retail center containing specialty shops, a food court, temporary spaces for artist and craftsmen, an indoor market and exhibition area; a meeting and information center for the Chamber of Commerce with spaces for meetings, banquets, exhibitions, and offices; and restaurant, night club and cinema facilities.

These functions reflect the latest trends in recreation that have been growing faster than the population rate. They also represent all of the fundamental aspects of recreation which provides a well-rounded program that will benefit and interest children, families, adults, and senior citizens. These types of recreational components, just as importantly, establish a balance of day and night-time use, and develop strong interior/exterior spatial relationships which is a definite key to promoting use and vitality.
Site Analysis

Location
The site for this project is in New Albany, Indiana. It is a small city located in Southern Indiana. The city was founded in 1812 as a riverport on the north bank of the Ohio River just below the falls of the Ohio River. Today, New Albany has a population of 38,000 people. The west end of Louisville, Kentucky is directly across the river from New Albany making it a part of the Louisville metropolitan area. The exact site is the riverfront area situated between the Central Business District and the Ohio River.

Context
The site consists mainly of old warehouses and industrial buildings. Most are abandoned or used for some other purpose, and are two to three stories in height. There also is a large amount of area used for parking. The site is currently zoned for light industry, but it probably will be rezoned for general business in the future.

The immediate surroundings of the site are:

East
Several blocks to the east is a residential area along Main Street consisting of historical houses that is locally known as ‘Mansion Row’. Beyond this is the K&I Railroad Bridge that stretches across the Ohio River to Louisville.
South
The Ohio River is located adjacent to the site on the south. Directly across the river is a golf course, and beyond it is a residential area of the west end of Louisville.

West
The context of the site continues for many blocks in this direction. Closer to the site and moving away from it are, respectively, the Sherman Minton Bridge (Interstate I-64), the sewage plant and the power plant of Public Service Indiana.

North
The major retail area of the C.B.D. is adjacent to the north side of the site. This area consists mostly of historic buildings, three stories in height and built in the 19th and early 20th centuries.

Circulation

Vehicles
Main Street is adjacent to the north side of the site and is a major east to west vehicular route. The only vehicular traffic onto the site is for parking since the streets are dead ends. The river side of the site has a road running through it parallel to the river, but it is only accessible from two points that are located at the extreme ends of the city. Traffic in the C.B.D. is heaviest between the hours of 9 am to 5 pm during business hours.

Pedestrians
The heaviest pedestrian traffic occurs during business hours, because the primary activity of the C.B.D. is shopping. The heaviest concentration appears around the corners of Pearl and Market Streets. The site has some pedestrian traffic parallel to it along Main Street. Access from the C.B.D. to the river is physically cut off by the floodwall.
Sensory

Sight
The best views on the site are from the top of the floodwall, especially to the river, but the height of the floodwall cuts off all views from the C.B.D. to the river and from the river to the C.B.D. No prominent focal points or open space areas for exist in the C.B.D. Good views occur along the two block, tree lined sections of Pearl and Market Streets with their historical buildings. Good views from the river side are along the river to the east and west.

Sound
Primary noise generators on the site are vehicular traffic along Main Street, Southern Railway trains adjacent to the floodwall, and barges moving up and down the Ohio River.

Climate
Prevailing winter winds are from the northeast, and prevailing summer winds are from the southeast.
Dimensions

The distance between Main Street and the Ohio River varies around 700 feet. City blocks in this direction are typically 350 feet, and 270 feet in the other direction. From Main Street, the distance to the centerline of the floodwall is 450 feet, and 380 feet to the railroad tracks.

Typical elevation heights are:

<table>
<thead>
<tr>
<th>Feature</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top of Floodwall</td>
<td>462 feet</td>
</tr>
<tr>
<td>Main Street and the C.B.D.</td>
<td>455 feet</td>
</tr>
<tr>
<td>Southern Railroad tracks</td>
<td>443 feet</td>
</tr>
<tr>
<td>Base of floodwall</td>
<td>429 feet</td>
</tr>
<tr>
<td>River at flood stage</td>
<td>429 feet</td>
</tr>
<tr>
<td>River at normal pool</td>
<td>383 feet</td>
</tr>
<tr>
<td>River at low stage</td>
<td>358 feet</td>
</tr>
</tbody>
</table>

Site Features

Natural

The site slopes south toward the river from Main Street, but is interrupted by the earth levee floodwall built in 1945 for flood protection. The floodwall physically separates the riverfront into two areas: the riverside which is a natural area along the river bank, and the city side which is in a deteriorated condition.

Man-made

The city side of the river is a dead end zone with streets cut off by the floodwall. Most of the scattered buildings in this area are two to three stories in height with masonry skins and flat or gabled roofs. There are two sets of railroad tracks running parallel with the river through the site beside the floodwall. The first set is no longer in use, but the second set is operated by Southern Railway and is frequently used. This track as it runs through the site is in the process of climbing to the top of the floodwall. Several low scale power lines run beside the tracks too.
Site Selection Criteria

The site must be located in an area between the river and the town center with potential for development. It should have strong connections to the following zones: business, river and public. The site should easily be accessible from other areas of the city and county to ensure the potential for maximum use.

In this selected area several potential sites should be considered and evaluated by the following criteria.

Primary Issues Related to Town/River Integration

The strength of its connection with the river and with the town center and the potential for development with each at that point.

Views from the site to the river, the town center, and along the riverfront, and views from these areas onto the site.

Dimensions, levels and shape of the site and its potential for development in consideration of the program.

Response of the development in consideration of the program to the context of the site and the use of the surrounding area.

Primary Issues Related to Town Fabric and River Fabrics

Access and proximity to major pedestrian activity areas and circulation paths.

Access and proximity to major vehicular circulation routes.

The location and presence of historically or architecturally significant structures on or near the site to further establish a sense of heritage.

Number of existing barriers on the site such as utilities, railways and etc.

Existing site uses and activities.

The effects of massing on the site.

Sensory, climate and zoning factors.
**SCHEME A**

CONCEPT

Bring water in behind the floodwall; Harbor

**DISADVANTAGES**

Hard Data

1. Locks must be built to accommodate a 60 feet water level change to create the harbor.
2. The railroad tracks must be moved to the top of the floodwall, and a bridge constructed to span the entrance to the harbor.
3. Flood gates must be installed in the entrance to the harbor.

Soft Data

1. The railroad will create noise and a visual barrier.
2. Views to the river from the C.B.D. are very limited.

**ADVANTAGES**

Hard Data

1. The water level can remain at a constant level in the harbor allowing for a beach area.

Soft Data

1. Vehicular and pedestrian views to the harbor are strong.
2. The harbor and surrounding elements are strongly connect with the existing retail area.
3. Water is brought up to the C.B.D. level to where a physical connection is achieved.
CONCLUSIONS

This scheme will create a pleasant internal focus where both the C.B.D.'s physical and visual connection with the harbor is very strong, but not with the river. This problem combined with extreme expense of constructing the locks, floodgates and the railroad bridge make this scheme not realistically feasible.
SCHEME B
CONCEPT
Expanding the C.B.D. level to the floodwall and adding vehicular circulation along this edge.

DISADVANTAGES
Hard Data
1.) The railroad tracks must be lowered.
2.) A floodgate must be installed in the section of the floodwall removed to allow pedestrian access to river.
3.) A structural deck must be constructed to expand the C.B.D. level to the floodwall.
Soft Data
1.) Physical connection with river is weak.
2.) Views of river exist only from the newly constructed edge, and not from Main Street.

ADVANTAGES
Hard Data
1.) The needed parking areas can be located beneath the deck.
2.) The unused industrial zoned area between Main Street and the floodwall is now prime buildable land.
Soft Data
1.) Pedestrian and vehicular views from the C.B.D. to the river are good.
2.) The railroad tracks is buried underneath the deck and therefore does not create any access or noise problem.
3.) Building constructed on this edge will allow the C.B.D. to be recognized from the river.
CONCLUSIONS

The potential development of an upper plaza continuing the C.B.D. level to the river is very strong. A connection between upper and lower decks could further strengthen this scheme, as well as a connection between the new C.B.D. edge and the river edge. Downfalls of this scheme are the expense, and the large distance the C.B.D. edge along the river is located from the historic retail area, which would become separate from this edge.
SCHEME C
CONCEPT
Create a new type of floodwall that becomes flexible.

DISADVANTAGES
Hard Data
1.) The cost of construction of a gate system incorporated with the elevated railroad tracks.
2.) Parking area is lost, and must be relocated further away.

Soft Data
1.) The railroad bridge will partially block views from the river to the city and vica versa.
2.) The exposed railroad will create a noise problem.

ADVANTAGES
Hard Data
1.) Vehicular access is established between the riverfront and the C.B.D.
2.) The scheme could easily be done in phases.

Soft Data
1.) Keeping the existing slope from the C.B.D. to the river will allow the historical features and the heritage to be emphasized more.
2.) The river can be seen from main street and vica versa.
3.) The physical connection between the C.B.D. and the riverfront is strong.
CONCLUSIONS

This scheme has limited potential. The visual impact of the railroad bridge and floodgates could create a separation that may become physical even though it actually is not. This would create a weak link between the C.B.D. and the river, and could hamper development of that area.
SCHEME D
CONCEPT
Moving the floodwall up the slope toward the C.B.D. where it becomes smaller.

DISADVANTAGES
Hard Data
1.) Some buildable area is lost to the floodplain area.
2.) The railroad tracks must be elevated, (also buried or integrated is possible)
3.) Parking area is lost, and must be relocated further away.

Soft Data
1.) The railroad bridge will partially block views from the river to the city and vica versa.
2.) The exposed railroad will create a noise problem.

ADVANTAGES
Hard Data
1.) The scheme could easily be done in phases.
2.) The historic retail area is easily integrated into this scheme.
3.) The river can be brought closer to the C.B.D.

Soft Data
1.) Open space elements can fill the area between the C.B.D. edge and the river strengthening their connection.
2.) The river can be seen from Main Street and vica versa.
3.) The physical connection between the C.B.D. and the riverfront is strong.
CONCLUSIONS

The concept of moving the floodwall back has the most potential economically, because it reduces the size of the new wall to be constructed. It also allows the focus and views to be along Main Street, and reinforces the historic retail area. The major downfalls are its reduction of buildable areas and the question of how to handle the railroad.
Conclusions of Schematic Design Options

After presenting the four schematic site schemes to the thesis critics, it was concluded that Scheme D held the most potential for development. Its only real problem was the question of how to deal with the railroad. Through discussion a possible solution was established that allowed the railroad to be moved inward toward the town, and be spanned over by the town fabric.

Other conclusions produced from this discussion were, a gateway could be formed to strengthen the axis of connection between the town and river by a building(s) forming the passageway, and the Ohio River at this point is a very swift moving and formidable opponent to overcome. It would be best not to improve too much upon the river, and deal with it sympathetically instead.

The next step was to develop a more detailed site analysis using the concepts presented by Scheme D using the addition of contextual views, circulation and connection points, historical buildings and site features, and area of development. Overlayed onto this was a conceptual approach to connect the two fabrics showing focuses, programmatic zoning, open space areas, building areas, axes and location of flood protection and its composition.
Town/River Connection Design Influences

When the task of connecting two different entities such as the river fabric and the town fabric is approached, the first thing that must be done is to define each of them, and point out their similarities and differences. The town fabric can be defined as very rational. It is entirely structured by man on the grid system. The river fabric on the other hand is structured by nature. It is a linear element that contains a certain amount of unpredictability and danger. On the site the two fabrics are separated by an earth levee that serves as the floodwall to provide flood protection. In its simplest form it separates open floodplain area and buildable area. The floodwall according to the Army Corps of Engineers can change its form, materials and position, just as long as the protection still exists. The farther the floodwall moves up the slope toward the town, the more its size is reduced and the more economical it becomes to construct. The floodwall could be formed by walls, buildings natural barriers and etc. It can be emphasized or concealed. Its required height is just 6 feet above the level of the adjacent town center. The closer and more integrated it becomes with the town edge, the greater the opportunity becomes for views and circulation to occur between the two fabrics, which sets up a strong relationship, because the two most important issues in any riverfront development will be the physical and visual connections for both pedestrians and vehicular movement between the town and river fabrics. These connections must be developed from two orientation points: the town looking to the river, and the river looking to the town. To emphasize these connections, the issues of gateway and axis need to be addressed.

Existing difference between river and C.B.D. levels.
Since the difference in levels between the town center and the river at normal pool is 74 feet, a successful direct physical connection cannot be accomplished, therefore the visual connection will become more important, because it will attract people between the two elements. This points out the need for strong focuses at the river's edge and at the town's edge to serve as nodes. Possible focuses at the river's edge could be a marina, a floating restaurant, an outdoor amphitheater, a man-made island, etc. The urban edge could utilize a pavilion, a plaza area or a building. The focuses must be exciting and possess an attracting power that draws people to them. They must stand out and serve to organize circulation, and space around themselves. The space between these nodes becomes important too because it becomes a transition zone made by the visual connection between the two focuses. This must be organized by secondary focuses, circulation, activities, spaces and views.

The focuses can be nodes that organize space and buildings around them. It can be done by views and axes (left), or circulation (right), or both.
**Town Fabric Design Influences**

An important factor is the development’s connection with the existing retail zone. This area is almost entirely comprised of beautiful historical buildings from the 19th century that were built during a wealthy period in the town’s history when New Albany was a major riverport on the Ohio River. Their rich detailing exemplify the vitality and prestige the town center once had, and therefore they should be emphasized and carefully integrated into the development to insure a strong connection, and to preserve the heritage of the town. Therefore, the development at the town’s edge must focus inward as well as outward. Its distance from the historical area becomes critical, because it must not physically remove itself and create separate zones, unless these zones can somehow support and strengthen each other. The three existing historical buildings on the site should be given the same emphasis and integration too. Vehicular and pedestrian views from and to Main Street will be extremely important to this concept as well. Other site concepts are shown in the diagram below.

The connection between the two focuses becomes the transition zone. The city’s focus should have a strong connection to the existing retail area.
Site Concepts
River Environment Design Influences

The river environment possesses certain characteristics that will influence design through technological and engineering concerns, but when these disciplines are integrated with architectural and planning disciplines the result can be a synthesis of the two that forms a balance between the site, and its functions. The Ohio River possesses two types of potentially destructive characteristics. These conditions are the flooding and icing over of the river. What needs to be considered before doing any design work is the frequency, time of year and degree of flooding that occurs. This information will break the site up into several different elevational zones established by the frequency of flooding at that elevation. These zones will structure which activities can or cannot occur in them, along with what type of architectural features, materials, and landscaping can be used. The condition of the icing over of the river should be handled in a similar manner. Below is an example using this idea with the project site at New Albany, Indiana.

Zone #1 330' (normal pool) - 420' Annual flooding
Inquiry: Annual flooding (winter peak)
Resolution: Bank erosion
- Ice every 5 to 10 years
Natural and man-made materials that prevent
- bank erosion and resistant to inundation and ice
- Removable or floating structures

Zone #2 420' - 435'
Inquiry: Flooding every 10 years
Resolution: Low risk area - expect flooding
- Temporary, flexible and flood resistant
- structures

Zone #3 435' - 460'
Inquiry: Flooding every 40 years (very inconsistent)
Resolution: High risk area - feasibility is a gamble between
- frequency and possible damage that can occur
- with the desirability of the function or building.
- Buildings, landscaping and materials

Zone #4 460' - (over the floodwall)
Inquiry: Flooding every 100 years
Resolution: Flooding should not be a major design concern
- Permanent structures, buildings and activities

Zone #4
Zone #3
Zone #2
Zone #1
Other characteristics of the river fabric that can influence design are its amount and location of river traffic, water depth, speed of current, water level fluctuation and height, width and slope of shoreline. All of these can play an important role in structuring site activities and site design too. The difference between flooding as discussed above and these characteristics is that flooding is so strong and uncontrollable, it tends to dictate design more, but these characteristics have some flexibility, and therefore offer two approaches to design instead of just one. The first is to accept them as a constant and let them dictate the activity and the design just as flooding does. The second approach is to accept the desired activity as a constant and let the design adapt the characteristics to allow the activities to occur. In applying this methodology to my project, three of these characteristics have unusual qualities that differ from the norm, and therefore stand out and influence design. The first characteristic is river traffic. It presents a problem at the river's edge. Barges travelling down the river stray from the main channel and hug the site's shoreline to take advantage of the stronger current. The wakes from these barges hammer the shoreline, and would disrupt any water based activity that would occur there such as swimming, wading, a marina, etc. Using the first approach, other appropriate activities would have to be found, but by using the second approach these activities can possibly occur by designing the site to alleviate this problem. Three possible solutions that could work separately or together are: one, install some type of obstacle out into the river to force barges farther away from the shoreline; two, install a wave breaking device similar to those used on many coastlines to protect beaches and marinas; and three, alter the shoreline to penetrate inward to form a self protecting inlet for activities to occur in and around.
The other characteristics of the site having unusual qualities are its strong current and extreme annual water level fluctuation. Using the second approach, design can be achieved to place on the site a marina, and a node on the water's edge for people to physically participate in the water. A design response that would solve the current problem for both activities is to alter the shoreline as diagrammed below. A response to the high water level change could be the use of floating docks for the marina, and designing a multiple of levels stepping down into the river for the participatory node so it will function within a specified water level range.

Using the basis of the first approach described above, another way to let it influence design is to look at the unique qualities of those characteristics that are imposing design problems and constraints on the site. Then, develop ways to use those qualities (that were originally thought to be negative) in a positive manner. Two examples of this process are as follows, they apply to the strong current and extreme water level fluctuation existing on the site.
A strong current of a river was traditionally praised, because it was the major source of power for many industries. Why not take advantage of this quality and use it to power fountains on a floating barge as Charles Moore did in a riverfront development in Ohio, or some other type of moving mechanical device that can act as a focus and symbolize a part of the river's history. The high fluctuation of water level can be used to an advantage too, since its rise and fall is predictable. In the summer months the river reaches its lowest stage and then crests during the winter months. In response to this, participatory activities can be established at the lower level for summer use. In the winter when the river becomes more of a viewed element, the summer participatory level will be submerged and the water level will be approaching the upper level that can be oriented toward passive winter time activities such as viewing that also occurs year round.

After using the different approaches above, the initial responses of inquiry can be accumulated and used as overlays to explore the range of possible solutions to obtain a resolution between the technological and engineering disciplines, and the architectural and planning disciplines. From these a final design can be developed that represents a synthesis between the different approaches and more importantly between function, site characteristics and design.
Initial Building Concepts
Community Recreational Center

The character of this building type that I want to portray through the architecture is a relaxed and open atmosphere. This expression is important on the exterior, because the building should partially reveal its functions in order to market the activities occurring within to produce increased awareness and use of the facilities. In the internal environment, this is even more important, because once people are drawn inside, their interest and curiosity must be maintained. This is where an open environment will contribute, because it allows for two types of users: the participant and the spectator. The goal of a facility of this type is to provide equal opportunity and benefits to people of all ages. Another goal is to get maximum participation and use. When considering that most people like to be a spectator before becoming a participant in order to build up their confidence and relieve their anxieties, and that some people cannot or do not want to participate in some activities and receive their recreation by spectating which gives them therapeutic and social benefits, it is obvious that the spectators' environment becomes just as important as the participants'.

Circulation and organization of spaces becomes the most important factors to consider when designing. My concept for circulation is to create a street environment in which circulation becomes direct and not confusing to Users. It also becomes spectator areas, activity areas, and creates an open social atmosphere.

Large span spaces become focal points at the ends to attract people between them along the small span areas.

'Street' concept to maximize views and access to activities.
Spaces should be organized in the following manner:

1. Large span spaces vs. small span spaces
2. Public vs. private
3. Most active vs. least active
4. Spectator vs. non-spectator
5. Type of recreation

Since activities in the large span spaces (gymnasium & swimming hall) are the most active and spectator oriented, they should be used as nodes to attract people into the building and draw internal circulation between to promote the other activities. Other active spaces should be used as secondary nodes.

Spaces with the most activity, appeal and need for views should be organized to create a primary circulation zone. A secondary circulation zone can be formed from the least active, service and non-spectator spaces which is oriented more for the participant.

Exterior spaces can be created from the void left by the footprint of the building. These spaces should be designed and organized in conjunction with the functions of the internal spaces, so views and accesses can be created between them.
Chapter 3  Design Development

Site/ Building Relationship

The following relationships between buildings and site were establish as important issues to address.

Buildings and their composition on the site should be unified in some manner, but just as importantly, each separate building should have its own integrity, and add variety to the site.

Building placement on the site should be organized by views, and circulation to create desired vistas, axises, entrances and gateways.

The relationship between interior space and its activity should by strongly connected to the adjacent exterior space.

Buildings should reflect the meshing of the city and river fabrics, and the characteristics of recreation.
The overall site/building concept that came from these issues was actually a synthesis of two different concepts. The first concept addressed the issue of massing and composition of buildings on the site. The program required for several large span spaces. Due to their large size requirement and overall mass, the composition of these elements on the site was critical, because of their potential site impact. In addressing this issue, it became important for these elements to adhere to the city grid, because of their massing. They could then start to define views and circulation between them. In the resulting composition, the masses were aligned on the east and west sides of the site by an imaginary 90 degree V at a -45 degree angle to the city grid and centered at the main pedestrian access point at Pearl and Main Streets and extending out to the existing floodwall. The V shape sets up an axis and a gateway between the river and the city. The sense of gateway is further emphasized by the masses as they increase in height approaching the center point.
The second concept used the floodwall as the symbolic and overemphasized divider of the river and city environments. The floodwall itself became an architectural element expressing the linearity of the river environment as it penetrated into the town fabric before returning to its original position and form again along the river. Functionally, its main purpose was to organize circulation, and become a unifying element on the site. Its architectural form was a wall. It changed width and height to emphasize views, circulation and focal points. It also became a playful, sculptural element representative of the spirit of recreation.

When the two concepts were integrated together, the following relationships were established. The long span spaces reflected the city grid and its rigidity. They became fixed elements that the wall element moved around and or penetrated into. The wall element, expressive of the river and its lineal movement, functioned as the circulation, service and mechanical core to support the short and long span spaces that connected onto it. The two elements, together, sat themselves up as a barrier between the river and city environments allowing views and circulation to occur selectively to emphasize entry, gateway, vistas, and a sense of breaking through into the other environment.
Architectural Concepts

Conceptually the building was represented and expressed in two components. The first was the wall element which became a solid expression symbolic of the floodwall and its protection. Its penetration and movement into and around the city environment represents the linear and fluid qualities of the river. The second component, symbolic of the city fabric, was the short and long span spaces that integrated in with and attached onto the wall. Their expression was light and structural to contrast the heaviness of the wall element and emphasize the grid system of the city.

Programmatic Response

Functionally, the two components constantly worked together to stress the idea of recreation and the merging of the river and city fabrics. The main function of the wall element was to conduct movement on the site by its interior definition and also by its external linear presence which established exterior movement along itself on both sides. It also precisely controlled circulation between the two fabrics. In its interior definition, the wall element enclosed and defined mechanical space, service areas, support areas and vertical circulation in addition to circulation. The support areas became one of the most important aspects that the wall provides toward recreation besides its form. These areas consisted of lounges and viewing spaces that existed for the spectators, and overlooked and integrated into participant areas. The expression of the wall element in these areas formed the needed psychological buffer between participant and spectator by maintaining a heavy physical barrier that allowed for a sense of privacy while still allowing for views to occur. The wall element also used its mass, texture and solidness to give scale and detail to provide a feeling of security and comfort.
The short and long span spaces contain the recreational functions as developed in the program. The long span spaces were the main spectator and participant areas. In the community recreational building, they were the physical recreation activities contained in the gymnasium, the leisure swimming hall, and the flexible racquetball/exercise areas which establish three internal nodes. The short span spaces contained the functions representing social, therapeutical, cultural, and leisure recreation. Some of these functions included the teen center, game room, day-care center, library, senior citizens center and etc.

**Interior/Exterior Relationship**

An important programmatic concern was the need to establish strong interior/exterior relationships. The concept of the wall with its spaces connecting onto it addressed this issue in the following manner. The wall became a masonry element acting as a solid on the site. The exterior spaces became the voids. The spaces connecting onto the wall which contained the programmatic activities became the transition element between the solid and the void. They achieved a light, open expression using steel and glass materials to contrast the heavy masonry of the wall and open itself to the exterior spaces.

**Design Organization**

The wall element along with the short and long span spaces were developed on a grid in order to integrate them and their representative fabrics together in a rational system from which a rhythm and balance of mass and proportions could be achieved. The module of the grid was 21 feet and was determined by the width of the racquetball courts. The reason why they were the determining element is because they required a completely fixed envelope that offered the least amount of flexibility of any programmatic function.
Connection

The movement on the wall element on the site was first developed in conjunction with the positioning of the long span spaces, but after their positions became fixed, the wall then formed around these spaces using strong geometries. It violated the grid of these spaces, not the form, whenever possible and appropriate depending on the flexibility of the envelope allowed by the enclosed function. The option then arose of whether to attach the structure of the long span elements to the wall or to let it become a separate structural system and span a glass membrane between them. Both sides contained several valid points, but it was decided to separate the two, first of all because of the need for control joints that would be required to handle expansion between the two elements, and secondly, because of the visual emphasis and recognition the separation would give to the wall. The short span spaces, on the other hand, attached onto and used the wall element for structural support. Their position was determined by the wall and its movement on the site.

Interior Statement

The interior architecture of the wall formed a strong identity and procession of circulation. It used bold geometries in its punctures to express the playfulness of recreation and the grandeur of public space. It also utilized different types and sizes of wall punctures along with changing volumes of space that pointed out cross-axises, views, vertical circulation and support areas.
Site Planning

The programmatic site planning of both interior and exterior spaces are shown on the opposing page. The goal of this planning was to achieve solid interior to exterior relationships at the appropriate locations on the site. An example is the swimming facility. Since it is one of the major activities on the site, it was given the most visible site location on the south east corner facing the bridge. The exterior space adjacent to the facility is the south sloping earth levee which is used as a sun terrace in the summer months. Another planning goal which related to the building/site concepts was to achieve a balance between open spaces and massings. A third goal was to use the contextual design influences as discussed earlier to determine which activities were most appropriate for each location. These are described individually and are as follows:
Marina

The final configuration of the marina reflects the linear form of the river. It also allows for expandability. It penetrates back into the shoreline to offer boats protection from the current. It also uses a floating wave breaking device to buffer the waves created by barges. Floating docks are used together with a stepping up shoreline to adapt to the water level fluctuation.

Amphitheater

The amphitheater takes advantage of the natural slope of the earth levee. It uses natural elements behind the stage to bounce sound forward. It is moved down the site away from the building elements because of three reasons. The first is for better acoustics that the buildings would disallow it. The second reason is because it only receives periodic use and, when it is not in use, it serves little purpose. Lastly it moves it away from the noise of the expressway, and the other concentrated activities of the riverfront.

River Participation Node

This element becomes the major river focus. Its composition is a series of concrete levels incorporated with vegetation extending down into the river to allow for use with variable water levels. At its lower levels, it is oriented for summer participation and at its upper levels for viewing. It penetrates into the shoreline to offer protection from the current and to pull activity and water closer to the city. Bouys are placed out away from the shoreline to move barge traffic farther out and to establish a zone for canoeing and possible sailing.
Ice Skating
The ice skating rink is placed at the 430 feet elevation mark. It is placed at this lower elevation because it is a function that flooding will not damage. It is positioned on the river side of the pedestrian bridge to allow it the room it requires, and to set up levels for spectators. The form of the ice rink is very organic and expressive of the site. It is a multi-purpose area in the summer.

Pedestrian Bridge
A pedestrian bridge is used to connect an axis set up by the railroad. Its main purpose though is to create overlapping levels for viewing purposes, and a three-dimensional site. Another important function is that it creates a continuous internal circulation arrangement.

Railroad
The railroad continues under the development in a tunnel between the two floodwalls. Its lowest elevation height is at the 417 feet elevation mark exactly in the center of the development. Directly above it is the pedestrian bridge.

Large Participatory Water Element
This element becomes the major focus on the city's edge. It would be similar in composition to Lawrence Halprin's participatory waterfalls at Manhattan Square Park in New York. It symbolizes the river escaping out of the city. Although it is not visible from Main Street, people will be drawn to it by the loud roar of the water falling, and before they can actually see it, they will see the Ohio River flowing peacefully by in the distance.
Open Spaces
Four open space areas have been created on the city side between the large span spaces. They create open green space zones between the new and the old, emphasize site elements, views, activities and entry, and permit circulation along the wall on the city side. Underneath these levels are parking and delivery levels.

Historic Buildings
The three adjacent historic buildings on the northwest corner of the site are emphasized in a open space zone and by the way the other buildings surround their site. The buildings are used as museums.

Market Area
A market area is used in the open space area on the northeast corner of the site. It functions in conjunction with an indoor market and exhibition area in the adjacent retail building.

Sports area
This area functions as an exterior support area for the community recreation center. It features a multipurpose area for ice skating, basketball, and other games. Surrounding it is a jogging track incorporated with viewing and green space areas. Underneath this level is parking.
Final Design

The final design drawings shown here represent the detailed development of the east half of the site. The two developed complexes are the community recreational center and the retail center. The development exemplifies the prototypical design of the wall element moving through the site and its interaction and connection with the programmatic spaces. The wall element is truly a three dimensional expression that cannot be completely comprehended in drawings, therefore the bulk of this presentation is devoted to photographs of the model.
Thesis Insights and Conclusions

The reconnecting of the river environment and the city environment under the direction of recreation can lead to a unified revitalization of both environments. After researching similar developments and by completing the hypothetical project in New Albany, Indiana, several key issues were found necessary to be properly addressed to ensure a successful development. First is the program. It must contain a balance of the different types of recreation to provide something for everyone, and day and night time use. It must also contain several high use activities that can be the features of the development. Secondly, the architecture must create the proper environment that addresses the connection between the two fabrics and provide a sense of place. Entry and views into and from the site become important, as well as the balance between massing and open spaces that bridge between the two fabrics. Lastly, because of the large size of this project, a strong site/building concept is necessary to contribute to the success of the development.

This thesis has provided me personally with a chance to study and increase my knowledge in many areas such as master planning, landscaping, engineering and urban planning. The project was the toughest that I have designed so far in my schooling. It forced me to think ideas through and put my ability to the test which is what a thesis should do. One of the problems that I did encounter with this thesis was its large size and how to narrow it down to a smaller scale to deal more with architectural building issues. I would encourage any future thesis student to keep the scope of their thesis projects to a minimum to allow them to concentrate on just the few issues that they desire.
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The statement "Man molds his environment, and the environment molds man" has always excited and motivated me, because architecture is the major tool with which man molds his environment. Architecture touches and influences more people than all forms of art put together. However, it appears to me that many architects in designing do not sufficiently consider the impact that their architecture can have on the behavior and actions of people. My goal as a practicing architect is to be a good conscious designer who designs for people and uses architecture to produce a better social and psychological environment. I also want to be able to design on two different levels simultaneously. One level relating to the populace, and the other to the intellectual, because I feel successful architecture occurs when this is achieved.

My expectations from thesis studio are to be able to try out ideas and develop my specific interest in architecture. I want to achieve from thesis studio a wider knowledge and approach relevant to more than one type of project as tested, and to a wider view of future opinions.

Architecture in the twentieth century through the fascination with the philosophies of form, function and emerging technologies that created Modernism have neglected the dimensions of who it is designed for. Design, its processes, approaches and results have often failed to meet the social and psychological needs of people. It creates uncomfortable settings for the many diverse activities of people. Qualities such as scale, texture, color, materials, acoustics, lighting, context, interaction, and density are not used to their fullest potential. Tension, anxiety and stress result when the physical setting should be alleviating these by providing a positive behavioral environment to all users to maximize their activities being performed.

Twentieth century architecture has also become designed too much as sculpture with function following form instead of form following function as it should be. Buildings need to respond more to the external and internal environments, and also the sequences that interface the two. Buildings should related to the context of their setting. Elements such as function and entry must be communicated through the architecture. In their internal environment, movement must be clear to the user if they are to successfully move through and interact with the different spaces and functions. The interface between internal and external environments must be dealt with carefully in order to invite and create interest from the outside and not inhibit the user inside. This also works in the reverse manner too.

Another problem I see is the devitalization of the downtown districts of cities. Downtown districts of many cities have gradually lost the appeal and spirit they once contained. Though they remain the physical center of community government and business, the focus for retail and leisure has moved to outer districts in the form of suburban malls and commercial strips that contain a superficial architecture. Many Downtown districts do contain real architecture of beauty, heritage and prestige, yet they are becoming less used by people. Why is this? It is because of urban planing or the lack of it, or is it the missing humanistic qualities of twentieth century architecture, or is it because downtown districts of cities are missing some important social or civic aspect or all of these?
The main proposition of this thesis is that the revitalization of downtown districts can occur through the introduction of public recreation and leisure, and through architecture that responds to the social and psychological needs of people and establishes an interacting, ordered hierarchy of and between the external and internal environments. Some questions to be answered about recreation are: Why is recreation so important? How can recreation revitalize? and What types of recreation are we talking about? Questions dealing with the second half of my thesis are: Why are the interfaces between internal and external environments, between humans and the environments, and between function and use important?

My approach to the project is to select an appropriate site, analyze it for zoning, urban structure, use and need, then present the options for recreation and use, and make general recommendations for site improvement and urban design development. (following the consideration of alternative scenarios.) The main vehicle with which to test my thesis statement though will be the siting and designing of a community recreation center. This is an emerging type of facility addressing the growing trend toward recreation, as a result of earlier retirement, living longer, the realization of recreational importance, changing life styles and shorter working hours. It will be a multi-functional center providing for physical recreation, leisure, exercise, education, and therapy. It will provide use for persons of all ages, and will have special features for individuals, groups, families, the young and the elderly. (see addendum #1)

My thesis will be well tested by a language I hope to develop that will analyze and explain the different types of users, their social and psychological needs, and their perceptions. Evaluation of this material will be from various experts from Architecture, Planning and other disciplines and from community groups and representatives at different points in the design process. Evaluation of how the architecture relates to its surroundings, its organization and the interaction between internal and external environments will be assessed from design documentation in graphic, three dimensional and written form. The ultimate test though would be in the built environment.

The selected site location is in the downtown area of New Albany, Indiana. New Albany is a small city located on the opposite side of the Ohio River from Louisville, Kentucky. I selected New Albany, not only because it has a faltering downtown with limited recreation, but also because of its appropriate size, need and potential. The exact siting for the facility will be located in close relationship to the retail and business zone, the public sidewalk zone, major streets, and possibly the river allowing it to be a focus and to draw upon both vehicular and pedestrian traffic to achieve the type of interaction needed.
Addendum #1

The following is a research paper written by me this past summer which started my interest in the aspect of recreation. This paper describes the benefits a community recreational center can provide to a community.

Community recreation facilities are owned and operated by the local governments. They provide areas and facilities for the members of that community to spend their leisure time in recreation. Most communities have outdoor facilities consisting of parks, tennis courts, swimming pools, baseball diamonds, and etc., but very few have indoor facilities that provide for year-round recreation. In this research paper I will describe the benefits a community can receive from community recreational indoor facilities.

Indoor recreational facilities allow community members to enjoy recreation twelve months of the year. It provides highly organized activities within its own space, and also becomes a focus for all recreation in the community, because it will extend its realm to all outdoor facilities too. This makes the entire system much more unified and organized. The activities offered will be far greater in number too. Activities are selected by the board consisting of community members who select activities that best serve the needs of the entire community. Besides physical recreation such as swimming, volleyball, basketball, gymnastics, and etc., to promote physical health and fitness, other forms of recreation include dance, acting, drama, crafts, hobbies, and games that respond to the needs of those seeking non-physical recreation. By teaching community members these skills, it can slowly introduce culture into a community.

People tend to respond to the amount of opportunity available. Indoor facilities provide an increase in opportunity to allow recreation to become more prominent in the community. Since they are public, they are available for use by everyone. The promote a social interaction between all ages, races, and levels of people. "Recreation affords a common ground where differences may be forgotten in the joy of participation and achievements." Social barriers can be eliminated. People have the opportunity to learn skills taught by qualified instructors. They can learn new activities or develop old ones to a higher level. Through organized recreation, "people can be taught respect for the rules, fair play, courage and ability to subordinate the selfish interest of the individual to the welfare of the group, and a capacity for team play." These lessons can be used in others aspects of their life, and reflect on the community as a whole. All this occurs in an environment that is very safe from injury or even death, because of the proper supervision and instructions provided.

Recreation facility staffs can teach people how to spend their leisure time more efficiently to promote individual growth and creativity. For young people the right type of recreation is critical for proper creative development. Also it is essential for muscle growth, and development of the vital organs. Older people are especially benefited by proper use of their abundant free time. Families will be brought closer together by recreation. They can share a common interest, or since the facilities offer a wide variety of activities happening simultaneously, they can go as a family, but participate in their individual interest. These facilities tend to bring the whole community closer together too. "Recreational agencies have also won high commendations for their service in times of crisis following earthquakes, floods, and other large-scale disasters."
Economically, the addition on an indoor recreational facility will increase local taxes, but the benefits received in reverse of this downfall are as follows. This type of facility attracts people and industry to the community, and also raises property values. It is agreed on by all experts in this field to deter juvenile crime by providing youth with places to spend their leisure time in organized activities that allow them to release their frustrations in socially accepted manners. George Butler points out, "a city spends several hundred dollars per year to care for one delinquent whereas a playground, which may prevent children from becoming delinquent, can be operated at an annual cost of only a few dollars per child served." He also says, "If, as medical authorities state, physical and mental health are dependent upon forms of wholesome recreation activity, the city is wise which spends money for recreation rather than for mending broken minds and broken bodies resulting from inadequate opportunity for the recreational use of leisure hours." The higher organization and opportunities provided by indoor facilities further emphasizes his two important purposes of recreation.

Community recreational indoor facilities benefit the community most by providing organization, opportunity, and proper environment to promote the use of recreation. The benefits of recreation itself are tremendous and are best described by this concluding statement from experts Doyle Bishop and Claudine Jeanrenaud. "Recreation is one of the few fields, along with certain branches of mysticism and Sunday morning evangelism, that claims significant effects on crime reduction; family functioning and unity; social and community development; physical fitness; mental health and therapy; the development of attitudes, values, leadership, and character; psychological and spiritual growth; and 'self-actualization'."

Notes
2. Ibid., p. 9.
4. Ibid., p. 25.
5. Yukic, p. 10.
8. Ibid., p. 29.
9. Ibid., p. 33.
10. Ibid., p. 32.
11. Ibid., p. 32.

AN ANNOTATED BIBLIOGRAPHY


This is a very informative book on community recreation. It deals with the importance of recreation to communities, and provides ideas for organization, facilities, features and services.

This source described different types of recreational facilities, and gives very basic and general information on each. It is a book of facts that are presented in an orderly and sometimes boring fashion.


This book contains a series of eight papers that describes the needs of a community to communicate, and to have identity. It relies on the past and presents future ideas to achieve this.


This is a very good source that seems to question and explore every possible aspect of recreation an leisure. It contains research by many experts in the field who are very critical and objective in their studies.


This book tells what is wrong with recreation in the United States and the politics behind it. It also in a very opinionated manner suggests ideas of reform.


This source deals mostly with the history of the YMCA. It does contain some of the philosophies and principles used by the YMCA which can easily be applied to community recreational facilities.


This book is primarily on the design of sports centers but does consider economics, optimum use and the environment to which the user will benefit most.


This book basically is a designing and briefing guide to these facilities. It also looks at feasibility and management.


This book emphasizes the significant of recreation and leisure. It explains the roles of the government at state, federal and local levels in developing this resource. It also looks at the programmatic and professional aspects of recreation.


This book was very informative toward this subject matter. It took an indepth look at what exactly a community recreation center had to be to operate providing the full potential of all benefits to the community.
Addendum #2

Historically, towns were built along rivers because of the commerce and transportation link they provided. Industry filled the riverfront areas separating the town centers from their rivers. Today, rivers are no longer the symbol for commerce, and gone with it is its industry. Left behind are vacant industrial facilities in some cases, and in others, new barriers such as railways, expressways and or floodwalls have filled their absence, which have caused riverfront areas to be fragmented and isolated from town centers.

This thesis is based on the following propositions;

(1) The reclamation and development of riverfront areas adjacent to town centers will contribute to the revitalization of the downtown areas, first by having a destination zone that passes through that area giving purpose to pedestrians and vehicles by providing aesthetic views, focuses and activities, and secondly by developing the river for what it now symbolizes to us; recreation.
(2) By selecting emerging programmatic options such as physical, social and health recreation that users of all ages have a growing interest in, and that is compatible to the site, the revitalization and expansion of the urban fabric is ensured.

For the last decade, most river cities and towns have succeeded in denying their heritage by turning their backs to their rivers. Now, people are beginning to realize the attraction, aesthetics and potential of the river. Several cities and towns have or are in the process of developing their riverfronts. It is a large and difficult task both economically and politically to accomplish, and it is usually done in several phases. The first step then becomes the most important one, because it serves as an example and determinant for the rest. Because of the recent trends toward recreation and the river now being a symbol for recreation, it should be the function of the first step. It provides for a lively atmosphere, both day and night time use, and many different activities to suit the needs of all users. Some examples are:

Indianapolis, Indiana; White River Park
Baltimore, Maryland; Inner Harbor
Jersey City, New Jersey; Liberty Park
Richmond, Virginia; James River - proposed
Minneapolis, Minnesota; Nicolet Island
Sandusky, Ohio; - proposed

Urban Recreational Developments,

New York, New York; Alpalt Green
Tucson, Arizona; Tucson Community Center
Miami, Florida; Opa-Locka Neighborhood Center
Columbus, Ohio; South Side Settlement
In this thesis I want to make clear that my definition of recreation is not sport as it is typically defined, but that it is the emerging definition which defines it as play or fun. This includes any passive or active activity such as the theater, swimming or dancing. A person can be either a spectator or a participant. The importance is that people are participating for enjoyment and because they want to, not because they have to.

Contacts and Authorities:

Site: New Albany Planning Commission and Engineers Office

Betty NaVille, engineer; Army Corps of Engineers

Geologist (BSU)


Physical, Social and Health Recreation:

Organized Group of New Albany community members

Director of Providence Retirement Home, New Albany, In.

New Albany Parks and Recreation Department

Youth Specialist (BSU)

Physical Health Specialist (BSU)

Geriatrician (BSU)
Steve Norton
Superintendent:
New Albany-Floyd County Department of Parks and Recreation
(Also member of the River Heritage Overlook Committee)

Combined central recreational facilities were thought by Mr. Norton to be definitely needed in the city of New Albany, but the main problem is funding. In the last several years the recreational budget has been cut 22% due to reduced available Federal funds. A project of this scope would require funding from other sources though, probably through bonds, donations or other types of funding. Presently, any type of indoor recreational activity occurs in the facilities of local schools, and are given a priority rating behind all school activities. This makes for a limited number of activities that sometimes change location on a weekly basis. An outgrowth of this has been an identity problem for the program, which Mr. Norton agrees that it would be solved by centralized facilities. They would also allow for better organization, more activities and more participation. Because of the limited recreational budget, Mr. Norton stated that activities needed to be self-supporting. This can best be accomplished through league activities, but it is also just as important for the cost to be at a minimum in order to not prohibit anyone from participating.

Mr. Norton suggested the following basic programmatic elements if the city were to develop this facility:
Indoor Activities:
- Multi-purpose gymnasium (two side by side courts)
- Kitchen facilities
- Leisure pool
- Locker rooms
- Raquetball courts (currently none on Floyd County)
- Exercise/spa
- Indoor running track
- Meeting rooms
- Office for Parks and Recreation Department
- Senior Citizen gathering place

Outdoor activities:
- Ice skating (currently none in Floyd County)
- Seating and gathering places

In the discussion of the potential of using the river, Mr. Norton felt the water level height of the Ohio River varied too much to construct a beach for swimming purposes. Another problem is that the barges hug the shoreline as they pass by the site. This especially causes problems with the boat ramp, because the waves from the barges have eroded it away. This could be resolved by adding some type of barrier that would break the waves or cause the barges to pass by further from the shore.
Mr. Hunter
Mayor
City of New Albany, Indiana

Mayor Hunter stated the type of development I proposed was a dream held by the city. It needs to be done, but because of the financial reasons, he could not see it occurring in the next 15 years unless some new type of funding was found. Minor development of the riverfront outside the floodwall is now a priority. Funds have been appropriated in the amount of 250,000 over ten years through a 1% tourism tax. This money is going to be used to construct an amphitheater with seating built into the floodwall, complete the Heritage Overlook, and build a more centrally located access road from Sixth Street going over the floodwall as developed by Brinkworth Engineers. The city looked into cutting through the floodwall to allow for an access road, but the estimated cost of 3 million dollars found by the Army Corp of Engineers was not realistic.

Mayor Hunter stated the need for recreation does exist, and the riverfront development would attract people to the downtown area, providing the access problem could be alleviated. It was his opinion that the flooding of the Ohio River was now better managed through some recent changing of locks and dams, and the floodwall was too high, and could even be partially cut away in one area to allow for a view to the river.

Mr. Rosenbarger's concern with the project was economics and feasibility. The city has thought of similar proposals to mine, but the large scope of this type of project has not allowed it to find funds to become a reality. Mr. Rosenbarger proposed that the feasibility of the structure should be an important concern in my project. His comments on my programmatic elements were that they were needed, but could they support themselves considering the large capital investment required? This has been the problem of most businesses trying to set up in the downtown area. Mr. Rosenbarger stated that professionally done market studies are necessary before establishing any business, but smaller businesses can't afford this type of study, and therefore have difficulty securing finances.

Another concern of his with the programmatic elements was that I needed to be critical with the sizing of them. I need to know the distance people will travel, the population contained in that area, and whether people will cross county and state lines.

The downtown area is strictly developed for the vehicle. The pedestrian is given only a sidewalk. The area contains very few trees, only a couple benches and no developed open space for people. It is a concern of the Planning Commission to deal with this issue, but because of lack of funds it is not a high priority. The main pedestrian area of the city is the four block area created by the crossing of Bank and Market Streets. The area is solely a retail area, and contains a large number of historic buildings. The area between Main Street and floodwall containing my site is zoned for light industry. No plans so far have been made to change this zoning to insure for riverfront development. He also pointed out that Main Street east of 10th Street, has been put on the Historical Register.
Mr. Chambers stated the history of the floodwall. It was built in the early 1940’s after the 1937 flood. The wall was built 3 feet higher than highest water mark of that flood, and ranges between 462 and 464 feet above sea level. Since then, only 1964 when the water level reached 447 feet have the floodwall gates been closed (gates close at the 429 mark). The Ohio River is typically at 374 feet above sea level. Its upper and lower stages vary 55 feet and 23 feet respectively from that mark. The dams and locks along the river do not control flooding at all. Their sole purpose is to keep a 9 feet pool for navigation. Designated areas behind the floodwall serve an important purpose. They are called ponding area and collect all internal rain which pumping stations located along the floodwall pump into the river. There are 6 pumping stations located along the New Albany floodwall, but none in close proximity to my site.

It was Mr. Chambers view that the height of the floodwall could not be any lower that it is presently. Structures could be built on or in front of the floodwall, but it requires special permits and the structures are subject to flooding. The current of the Ohio River either normally or in a flood situation would have a minimal effect on any structural considerations for this type of project. He also confirmed the cost of putting an access road through the wall saying that installing a flood gate was the major expense of this proposal.
Publication summary:

(1) New Albany-Floyd County Parks and Recreation Master Plan 1976-1980

The New Albany-Floyd County Parks & Recreation Department has established the following policy to guide their operation:

1. Bring to the residents of Floyd County adequate recreational opportunities to meet the wants and needs of all persons of all ages;
2. Conduct a well-managed recreational program and maintain park land to suit a wide variety of tastes, both aesthetically and functionally;
3. Protect and preserve our present lands and facilities and ensure that sufficient, suitable lands and facilities will be available to generations to come.

Other relative information obtained through these publications supporting my thesis are as follows:

- Policy:
  "Strive to achieve maximum use of facilities and services."

- Objective:
  "Provide open space and recreational facilities which enhance the architectural setting of the city, particularly adjacent to historical landmarks, and the city’s civic and cultural centers."

- "Recreational demand is increasing at a much faster rate than the population."

- "Increasing responsibility is being placed upon planners and developers to provide ample space for leisure time activities in growing cities."

- "When considering private recreational facilities in demand satisfaction, it should be pointed out that private establishments usually charge an admission fee or require membership for use of their facilities. Therefore, it should not be assumed that these private facilities can contribute to the outdoor recreational needs fulfillment of all socio-economical groups of the community."

- "Implementation of the riverfront park master plan is needed to provide water-based recreational opportunities to inner-city residents and to increase downtown business opportunities."

- Priorities for corrections to Riverfront Park are:
  - Increase accessibility to the riverfront.
  - Increase recreation potential and park use.
  - Take advantage of linear open space. (jogging and bicycling trails)
  - Create stronger connection with the river’s edge.

- "(From survey taken) ‘On the whole, most households (72.1%) throughout Floyd County felt that it was not important that parks and recreational facilities be located near (within walking distance) home. This might imply that people are accustomed to driving to places for recreational purposes."

- "There is a need to provide additional program opportunities for the elderly, handicapped and teen populations of New Albany and Floyd County."

- "Gymnasium type activity is usually the most popular, however, there is quite a high interest in arts and crafts, dramatics and table games.”
Basketball leagues use school facilities for their play, and nearly every year, many teams are turned away due to inadequate space to play."

"The county has a population sufficiently large enough to support one ice rink at this time."

The need for more swimming pools has been expressed by the community, and for one of the indoor/outdoor type.

Sources of Recreational Funding:

1. Annual Operating Budget
2. Bonding*
3. Non-reverting Capital Fund
4. Federal Assistance*
5. Gifts and Bequests*
6. Other Assistance*

*Most likely sources of funding for this type of project.

"It is apparent that the majority of retail land uses in the Central Business District are generally located along State and Pearl Street corridors." (546,500 sq. ft)

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail</td>
<td>16%</td>
</tr>
<tr>
<td>Service</td>
<td>15%</td>
</tr>
<tr>
<td>Public</td>
<td>20%</td>
</tr>
<tr>
<td>Parking</td>
<td>17%</td>
</tr>
<tr>
<td>Vacant</td>
<td>22%</td>
</tr>
</tbody>
</table>

Results of Kemper Survey (note: the results of this survey must be used with caution due to their inconclusive approach)

- Their retail trade is the primary activity of the city
  - Retail 67%
  - Recreation 7%
  - Financial 12%
  - Personal 14%

- 'Retail business hours define when most of the activity may occur in C.B.D.' (9:00 A.M. - 5:00 P.M.)

- 'Most of the architecturally and historically significant buildings of Downtown New Albany are located between State and E. 3rd Streets and Main and Spring Streets with other structures scattered throughout the area.'

- '(architecturally and historically significant) structures are a definite physical asset of Downtown New Albany and as such may plan an important role in its rejuvenation.'

- 'Most residential uses are found in the west and extreme east end of the downtown.'

- 'Limited residential uses also begin to appear in the central portion of the C.B.D. at the second floor level. Much second floor space (and third as well) appears to be vacant.'
"Downtown New Albany's transportational system is designed to accommodate the automobile."

"Pedestrian systems rely almost exclusively on a sidewalk system which parallels the street system."

"Part of the Downtown's most intense business area, which generally experiences high parking space usage, is not within the maximum acceptable walking distance (400 feet) for short term shoppers."

"No new permanent parking lots should be added to the Downtown until development and/or redevelopment can occur."

"Then land located between Main Street and floodwall containing my site is zoned for light industry. Most of the strip is quite narrow (300 feet) and, for the most part, is currently undeveloped in a typical industrial sense. If future plans for the C.B.D. are not to include industrial development, it may be expedient to rezone this land for a different use. Otherwise the zone should be reshaped to provide a more spacious but compact industrial district."

"Area on the river side of the floodwall in the floodplain area is zoned as open space and priority use is given to recreation."

Conclusions for publications listed above:

"The land located between the floodwall and Main Street needs to be rezoned to insure the proper riverfront development of that area in connecting the C.B.D. with the Ohio River."

"A very strong link needs to be created between the river and the C.B.D. It must be both physical and visual as well as both pedestrian and vehicular. Only in developing all of these issues can the maximum potential and benefits be extracted from the relationship between the two."

"The introduction of leisure and recreational activities can serve to balance the predominantly retail focus of the C.B.D. by providing a greater variety of activities and attracting more people."

"Steps need to be taken to increase night-time activities in the C.B.D. One step could be the development of vacant 2nd and 3rd story building space for residential use. Another would be the addition of leisure and recreational activities as proposed."

"Indoor recreational opportunities are extremely limited due to an absence of available facilities, thus the recreational activities and facilities needed to accommodate these activities are needed in the community and probably could be supported at the present time and definitely in the future if current trends continue."

"Facilities of this type are needed to maximize the ability of the Parks and Recreation Department to provide a well-managed recreational program while satisfying the wants and needs of all people of all ages."
Program

<table>
<thead>
<tr>
<th>OPEN SPACE ELEMENTS</th>
<th>width</th>
<th>length</th>
<th>sq.ft.</th>
<th>height</th>
<th>volume</th>
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<tr>
<td>Ice Skating Rink</td>
<td>100</td>
<td>220</td>
<td></td>
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<td>22,000</td>
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<tr>
<td>Marina</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Amphitheater</td>
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<td></td>
</tr>
<tr>
<td>Pavilion</td>
<td></td>
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</tr>
<tr>
<td>Playground</td>
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<tr>
<td>Riverwalk</td>
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<tr>
<td>Seating Areas</td>
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<td>Historic Elements</td>
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<tr>
<td>Water Elements</td>
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</table>

RECREATIONAL TYPES:

1.) Physical
2.) Therapy
3.) Educational
4.) Social

<table>
<thead>
<tr>
<th></th>
<th>Physical</th>
<th>Therapy</th>
<th>Educational</th>
<th>Social</th>
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</thead>
<tbody>
<tr>
<td>Day-Care Center</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arts Center</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teen Center</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior Citizen Center</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exhibition Hall</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central Entry</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swimming Hall</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sports Hall</td>
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### SIZING

<table>
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<tr>
<th>Facility</th>
<th>Width</th>
<th>Length</th>
<th>Sq.ft.</th>
<th>Height</th>
<th>Volume</th>
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<tr>
<td><strong>Sports Hall</strong></td>
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<td></td>
</tr>
<tr>
<td>Gymnasium</td>
<td>10,000</td>
<td></td>
<td>22</td>
<td>220,000</td>
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<tr>
<td>Exercise Gymnasium</td>
<td>30</td>
<td>75</td>
<td>2,250</td>
<td>20</td>
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<tr>
<td>Racquetball Courts</td>
<td>(6)20</td>
<td>40</td>
<td>4,800</td>
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<tr>
<td>Lockers / Showers</td>
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<td>8</td>
<td>16,000</td>
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<tr>
<td>Spa / Therapy</td>
<td>1,600</td>
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<td>12,800</td>
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<td>Running Track</td>
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<td>1/8 mile</td>
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<tr>
<td>Game Room</td>
<td>30</td>
<td>64</td>
<td>1,920</td>
<td>12</td>
<td>23,040</td>
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<td>Locker / Showers</td>
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</tr>
<tr>
<td>Diving Area</td>
<td>repeat</td>
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</tr>
<tr>
<td>Leisure Area</td>
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<tr>
<td>Lap Area</td>
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<tr>
<td>Wading Pool</td>
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<tr>
<td>Office</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>10,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Central Entry</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lobby</td>
<td>600</td>
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</tr>
<tr>
<td>Control Desk</td>
<td>800</td>
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</tr>
<tr>
<td>Restaurant / Snack Bar</td>
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<tr>
<td>Offices, P &amp; R</td>
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<td>8</td>
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<td><strong>Total</strong></td>
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<td>2,200</td>
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<tr>
<td><strong>Exhibition</strong></td>
<td>60</td>
<td>60</td>
<td>3,600</td>
<td>16</td>
<td>57,600</td>
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<tr>
<td>Kitchen</td>
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<tr>
<td>Lobby</td>
<td>repeat</td>
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</tr>
<tr>
<td>Meeting Rooms</td>
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<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>5,800</td>
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**Mechanical**

**Storage**

**Offices**

**Janitor**

**Seating Area**

**Mechanical**

**Storage**

**Janitor**

**Restrooms**

**Kitchen**

**Service**

**Storage**

**Janitor**

**Restrooms**
<table>
<thead>
<tr>
<th>Building</th>
<th>Description</th>
<th>Square Feet</th>
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<tbody>
<tr>
<td>Senior Citizen Center</td>
<td>Lobby</td>
<td>400</td>
</tr>
<tr>
<td></td>
<td>Game Room</td>
<td>400</td>
</tr>
<tr>
<td></td>
<td>Offices (social service)</td>
<td>400</td>
</tr>
<tr>
<td></td>
<td>Meeting / Club Rooms</td>
<td>repeat</td>
</tr>
<tr>
<td></td>
<td>Health / Therapy Facilities</td>
<td>repeat</td>
</tr>
<tr>
<td></td>
<td>Restrooms</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Storage</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Entrance</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>1,200</strong></td>
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<tr>
<td>Teen Center</td>
<td>Lobby</td>
<td>400</td>
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<tr>
<td></td>
<td>Game Room</td>
<td>400</td>
</tr>
<tr>
<td></td>
<td>Offices (social services)</td>
<td>400</td>
</tr>
<tr>
<td></td>
<td>Meeting / Club Rooms</td>
<td>repeat</td>
</tr>
<tr>
<td></td>
<td>Restrooms</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Storage</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Entrance</td>
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<td></td>
<td><strong>Total</strong></td>
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<tr>
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<td>Exhibition Space</td>
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<td></td>
<td>Class Rooms</td>
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<td>Storage</td>
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<td>Clean-up Areas</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>Janitor</td>
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</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>1,450</strong></td>
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<tr>
<td>Day-Care Center (open plan)</td>
<td>Play Area</td>
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<td></td>
<td>Class Room Area</td>
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<td></td>
<td>Arts Area</td>
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</tr>
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<td></td>
<td>Library / Reading Area</td>
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<td></td>
<td>Lobby (parent / child area)</td>
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<td></td>
<td>Restrooms</td>
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<td></td>
<td>Storage</td>
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<tr>
<td></td>
<td>Entrance</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>45,620</strong></td>
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<tr>
<td><strong>15% Additional (support space)</strong></td>
<td><strong>6,843</strong></td>
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<tr>
<td><strong>15% Circulation</strong></td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>59,306</strong></td>
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</table>
New Orleans

Zoning new life at the levee

The New Orleans waterfront presents a problem, especially at the levee. Its residents are not from New Orleans but from areas that are above the levee. Normally, it should be safe to walk along the levee, but sometimes the levee fails, causing flooding. New Orleans has another point to consider. The levee is the second largest in North America. Marine trade is the city's main economic source, even ahead of tourism. The shift to containerized shipping could make many of the current wharves and piers obsolete. The Dock Board is studying the possibility of removing many of the older facilities to a nearby channel.

Despite these challenges, plans to redevelop the waterfront are moving forward. A recent example is the Riverfront Center project by Helmut, Oberneder & Partners with Zumbiel & Taylor.

The project includes a new convention center, office buildings, and retail spaces. The goal is to create a vibrant new destination for visitors and residents alike.

Urban design framework concept

Legend
1. Multiple Use
2. CBD Historic District
3. Vieux Carré
4. Lakeview Square
5. Canal Street
6. Office Core
7. Residential
8. Peripheral Parking

Planners' schematic proposal for area in front of Vieux Carré
Decking over

Louisville had problems of wanting to keep its central lines operating by the water’s edge, placing another deck there, while still opening the waterfront for recreational use. So the city decided to deck over these transportation routes with a plaza and belvedere on top of a 1600-car garage. Called the Riverfront Square, the plaza itself is small (6.3 acres), yet it is a good start for an effort that should extend up and down the river. The plaza itself forms one fifth of the River Front Redevelopment Project, a 40-acre urban renewal area aimed at revitalizing the downtown core. In the immediate vicinity of the plaza, three major new structures—a hotel, a 40-story office building (by Harrison & Abramovitz), and a 6-story office building (by The Office of Mies van der Rohe) have been built. High-rise apartments are projected for the southwest part.

When the project was conceived, there was thinking led to tearing down under-used buildings. Today, however, old warehouses will be saved and renovated as part of the West Main Street Historic District just added to the National Register.

The basic architectural concept for the Riverfront Plaza was developed by Louisville architects Lawrence Mekitt & Jacqueline Ward for the city of Louisville’s Riverfront Commission with Bonaventura Associates as consultant engineers.

Senior, Campbell & Associates solved the problems of building the poured concrete municipal parking garage, incorporating a new floodwall within the garage structure, raising the rail line, burying the transmission lines underground, and building the pedestrian belvedere to contain a post office building.

The Riverfront Commission was established in 1969 to administer the financing, and the new area, such potential development and operation of the project. The garage and plaza were paid for by mortgage bonds secured by parking meter revenues, the hotel lease, and garage income. Other buildings on the site, such as the Federal Building, were bought by the Urban Renewal agency, the hotel related land sale, $10 million of the bonds, the parkland, and the area below, were designed for the Riverfront Plaza.

Portland

An esplanade instead

Not too long ago (last year, in fact) Portland had a land use planning scheme linking the waterfront from downtown. No longer. In May 1974, the city of Portland announced to the State of Oregon, under the leadership of Mayor Vera Katz, a $200 million plan to develop a waterfront esplanade.

The plan included a new waterfront park, a public parking garage, a hotel, and other mixed-use development. The project was estimated to cost $120 million and was expected to be completed in 1977.

The Portland City Planning Commission, under the leadership of Donald W. Dierks, had drafted a plan that called for a mix of residential, commercial, and recreational uses along the waterfront. The plan also included the construction of a new ferry terminal and a pedestrian walkway.

The plan was met with resistance from some residents and businesses along the waterfront, who feared it would result in the loss of valuable waterfront real estate.

The Portland City Planning Commission faced a difficult decision. They had to balance the needs of downtown residents and businesses with the desire to create a new waterfront park and ESPLANADE. The plan was ultimately approved, and construction began in 1975.

The Portland waterfront has since been transformed into a vibrant destination, with new parks, restaurants, and residential developments. The project has been a success, and is now considered a model for waterfront development.

Legend
1. Festival Amphitheater
2. Hawthorne Bridge
3. Relocated Park
4. SW. Front Ave
5. Morrison Bridge
6. Indoor Recreation
7. Tennis Center
Design and conquer

In contrast to Boston, Baltimore's Inner Harbor has not yet been redeveloped. Instead, the city and state are taking a cautious approach to the historic harbor. The Inner Harbor is a project that is scheduled to begin in 1979 and will eventually include 1,000 acres of new development.

The Inner Harbor project is being planned by the Inner Harbor Management Corporation, a nonprofit corporation that manages the development of the Inner Harbor. The project includes a 42-story office building, a hotel, and a marina.

The Inner Harbor project is expected to be completed by 1985 and will create a new waterfront district in Baltimore. The project will include a variety of uses, including office space, hotels, restaurants, and retail spaces.

The Inner Harbor project is being planned in phases, with the first phase expected to be completed in 1980. The first phase will include a 500-room hotel and a 500,000-square-foot office building.

The Inner Harbor project is being designed by a team of architects, including SOM, HNTB, and HNTB. The project is expected to cost $500 million and will create over 10,000 jobs during construction.

The Inner Harbor project is expected to be a major economic boost for Baltimore and will help to revitalize the city's waterfront.
and Return

A Concept for Richmond's James River

by ANGELA DANADJEVA

Richmond, Virginia, an historic Fall Line city along the Eastern break-point in river navigation, has for more than a century turned its back to the James River. Here was the early trans-shipment point for goods from the coast; here was where industry and railroads settled.

Now the pattern is to be reversed. Richmond has been taking a new look at its future, and the concept shown on these pages is a result of this process.

This concept aims to unify north and south Richmond by means of a new River Park — to provide pedestrian access to the river from both sides, along the banks and across the river.

Central to this concept is the remarkable James River itself. It enables or[P105_001]ers its way — depending on the season — through the city’s center. It provides the city’s most healthful environment — minimal air and noise pollution, improved water quality, a giant scenic open space, and unique beauty.

Many islands convert the river into a series of streams, white cascades and reflecting pools during the dry season. With the rising waters of winter, the islands and rock formations vanish partially or entirely, leaving trees protruding above the water’s surface, striving to withstand the current. As summer approaches, the waters subside and the lavish islands return. These islands we have chosen in our plan to call the Vanishing and Returning Gardens, whose beauty is revealed in the continuous changes brought by the seasons.

It is this natural phenomenon which is the foundation of the proposed concept; the river is the park and the park is the river. Moreover, the concept is most feasible — it utilizes the river open space for the park while the valuable shore land is planned for residential and visitor-related commercial/recreational uses.

The Vanishing and Returning Gardens of Richmond are the river’s unique feature — a park in constant change.

Relatively little effort is required to establish the gardens. Nature has already provided the elements of a grand park experience with granite boulders, wild plantings and waterfalls. Bedrock is exposed during most of the summer when heaviest visitor loads occur. The ecology of the area must only be preserved and the abandoned bridge supports and debris removed.

Access can be provided by two footbridges from the proposed shoreline promenade under the trestle and by a proposed walkway under the existing railroad bridge which crosses the river. Access from Mayo’s Island and among the islands themselves can be had via stepping stones and bridges designed to appear as natural as possible. (All these are shown in illustrations.) All connections should be engineered to with-
stand floods. Tangled or thorned indigenous plantings can protect more fragile areas.

It may sound like the most natural concept — to unify the forces and assets of nature and to return this vast and beautiful waterfront to the public view.

However, the effort is not simple. Centuries of industrialization have erected great barriers between Richmond and its river: railroads, high bridges, industries and freeways. The concept provides for these major elements of access: the proposed James Gate (main entry to the park), the promenade Kontinuaus pedestrian walkway along the river) and the Kanawha Cascades/Browns Island Galleria (linking downtown with the river).

In 1976 the firm of Danahana and Koening Associates was asked by Richmond's Director of Downtown Development, Lewis Parker, to analyze the potential of the James River for future improvements. The author's design experience with the Seattle Freeway Park (I.A. Sept. '77) helped unify the divided city. Both Seattle and Richmond are cut by barriers, but the James River is an asset in and of itself — waiting to be brought back into the city's daily presence.

A concept plan such as this must, of course, undergo a series of necessary reviews and adjustments in a complex city. One of the major elements — a new kind of flood barrier — will require modification by the U.S. Army Corps of Engineers of their usual floodwall design, so as not to shut off the city from its river but to facilitate pedestrian movement along it through a linear path.

*The Richmond study was a joint venture with nearly 100 partners in design, planning, and urban design.*

Richmond's most devastating floods (1866, 1972) produced U.S. Engineer's plan for floodwall 23 ft. high, 4000 ft. long. But author Danahana sees this as another barrier to river enjoyment: "We recommend the floodwall to be a sculpture" — with terraces, promenades, sitting areas as part of floodwall original design — further linking downtown and river.
Yet, as the illustrations from the concept plan reveal, most of the ingredients are already in place, requiring only a series of agreements, compromises and cooperations which Richmond can provide.

The city expenditures involved are relatively few. Several major elements are already funded — the floodwall by the federal government, the new Lee Bridge by the state, and the retention basin funded by the city as is Kanawha Square over the expressway. The historic Tidewater Ironworks site is a gift to the city from Ethyl Corporation. Two other high-impact elements, Belle Isle and the islands of the Vanishing and Reurnine Gardens are already city-owned and need only removal work and relatively inexpensive development. Non-city-owned land is where we propose private development. Thus a substantial part of the riverfront development is either already funded or utilizes lands owned by Richmond. The remaining elements, Brown’s Island, Kanawha Cascades, James Gate and the residential sites, are left for private development with some city support.

The city is also blessed with some major landholders (Ethyl Corporation, Reynolds Metals and the James River Paper Company) eager to coordinate their improvements with the city’s plans.

Phasing will be necessary to realize the concept. The most urgent requirement of the city is to work with the Corps of Engineers to ensure a sensitively designed floodwall. Discussions are now under way. The next effort should be to provide access to the riverfront and to proceed with some of the easier elements such as the retention basin/recreation area, programming for the Tidewater site; and the clearing of Belle Isle and the gardens of debris. Simultaneously, developers must be approached concerning Brown’s Island and the Kanawha Cascades areas. A special department of the city should be established to motivate and coordinate the entire process.

Richmond has great interest in attracting the proper balance of businesses, commerce, recreation, culture and tourist activity to the riverfront. This is the maximum purpose for the riverfront.
department of the city should be established to motivate and coordinate the entire process.

Richmond has great interest in attracting tourists who pass through daily to such places as Williamsburg, King's Dominion and points south. The city is planning a downtown convention center to draw visitors from all over the country. Although many cities have adequate convention facilities, conventions prefer to locate in those cities which have unique appeal. The development of the James Riverfront could offer this special quality. Nature has provided the opportunity to unveil an attraction of national prominence in Richmond.

“"We propose the riverfront to become the unifying element for Richmond,"" says the author. ""The key issues of the concept are to provide convenient river access to downtown, continuous pedestrian access along the river, and to the island gardens.""
When sports turn to leisure

There has been a radical change over the last decade from the spartan interiors and facilities found in earlier sports buildings to the more relaxed interiors and free form swimming pools of present day leisure centres.

The first generation of sports buildings of the early 60s set out to provide facilities for athletes, swimming pools for training and competition, sports halls as training centres. It was only after buildings like The Liberton Sports Centre in Edinburgh were built that it was realised that the building, conceived as a training facility, was the biggest hall in the country and was soon used for social gatherings, political and public meetings, and large spectator events. The ancillary features were quite inadequate for the building's multi-purpose role.

In the late 60s, a second generation of sports buildings emerged which started to combine swimming pools and sports halls within the same building envelope. This allowed sharing of running costs, leading to a more efficient use of capital and running costs.

Whitley Bay was an instant success particularly with women and families.

By the mid-70s, the concept of recreational sport was totally accepted and most local authorities had started to include a site for a leisure centre within their structure plans, if they did not get a design under way. A tendency had started...
to call any new sports building a leisure centre, regardless of the accommodation and facilities. This was also the time that package deals started to establish themselves, opportunities for local authority budgets were getting tighter. As with other building types, package deal firms claim to be able to offer their clients cheaper buildings through offering a standardised design, in some cases saving professional fees and through their experience.

In many cases the apparent cheapness of their buildings, is merely tighter space standards, particularly smaller changing areas and plant rooms, a generally low specification, and cheap, short-life finishes. In many cases the cost per square metre can work out to be the same as for a higher specification purpose designed scheme. The most interesting package deal firm at the present time is Techno Suntec, who have retained Cliff typically for package deals from Techno appoint and pay architects to draw up their schemes, choosing their financial keenness is through being able to negotiate tighter subcontracts. Understandably schemes like the White City are reminiscent of the earlier Gillinon Barnett work. With the current financial climate, Techno is convinced enough of the potential of the leisure field that it has schemes on the drawing board where it is intending to go one stage further and put up the finance to develop the schemes itself.

1980 saw the opening of two schemes which herald a second generation of leisure building, at Rhyl and Morecambe. In both instances the schemes were designed not for sport, but for fun, using the idea of a leisure pool to attract holiday makers to the town. Rhyl got a grant from the FLC because of its employment generating potential.

House project for Combran designed by Foster Associates. There are three important differences. First, ice rather than a pool has been chosen as the key facility. Secondly, this is proposed to be a scheme for the local community, to generate and support community schemes throughout the Combran region to create new kinds of work, leisure, and self-help. Thirdly it is designed, once built, to be self-sufficient financially. The scheme has been extensively costed both in terms of its capital cost to build, and in terms of what revenue can be generated from the facilities. Providing it can get grants towards its initial construction costs, the figures show that the income generated by the ice rink, pub, disco and other commercial activities, will provide profits that can be ploughed back into community projects generated in other parts of the scheme. Such a project, which is to be undertaken by a local named charity.
Memory materialized

A neighborhood center designed by Studio Works is an agglomeration of evocative spaces and images, meticulously executed in tough materials.

Founded at the turn of the century in a working-class area of Columbus, Ohio, the South Side Settlement previously occupied a building complex that had accumulated predicaments. In the mid-1920s, the organization began a campaign for more adequate new facilities that might also encourage revival of its neighborhood. A wide architect search led them to Studio Works, a Los Angeles firm now based in New York.

The first design that Works gave them won a P/A Award (Jan. 1976, pp. 62-65), but by the time of construction, the program had to be scaled down. The final, totally revised scheme is little larger than the earlier quarters, but carefully attuned to present and future needs.

The completed facility looks, from outside, like a cluster of structures at the scale of neighborhood homes. A more monumental, community-scale image can be seen only from the internal court (photo opposite). Only from there can one see the classically composed "house" at the core of the complex. Wings of loft-like space flanking this core contain functions that can be reassigned as programs change. The whole is meant to be perceived as "the domain of many proprietors over time, rather than of a single contemporary one."

Materials and details are meant, literally to survive 100 years of hard use and, figuratively, to express the original settlement ideal of hard work and integrity. Simple mechanical provisions include no air conditioning even in the clinic portion.

Specific features are described in captions. Design ideology, related to current European ideas, is discussed in a critique by Mark Mather (pp. 83-85). [John Morris Dixon]
Symmetrical facade of central block (above) faces down axis of court and inward false front that marks silhouette of shorter block (above right). Classical formality is maintained in flanking walls with balcony windows covered over paired columns. Court is to be paved, and stairs designed by sculptor Alice Ascherd will be executed, lead up to balconies at theater end. Central wall of eyes, there is one of those (plan below) that match curve of vault over core block. Plan shows gym, central area, court, and central theater on long axis, flanked by less specialized spaces to north and south, with entrances on cross axes. Circulation is planned for interaction, not efficiency. Gym (top, opposite) is also major gathering place. Conceived as a court, roofed with pre-engineered structure, it has grand stage platform, enclosed in particle board, at base of core facade. Central area (bottom photo, opposite) main circulation with activities such as sitting near fireplace. This block, seen as a regular form "altered" by insertions such as angular stairs, with nonuniforming steel structure painted blue-green. Insulation inside block walls and applied to exterior allows block to be exposed inside, flush parts.
Critique

The South Side Settlement by Craig Hodgetts and Robert Mangurian glories in the postmodern revival of an era in which architecture is constantly redefined. While certain popularity in American architecture is guaranteed through historic and eclectic allusions, the more abstract "analogical" architecture of the South Side Settlement has established its own popularity with its users and neighbors.

Barbara Stowell, director of the Settlement, commented after moving to the new building: "...it feels like I have been here before." Invoking memories of space, building types, and urban building elements is one of the main principles of La Tendencia (Italian Rationalism) like Renzo's analogical architecture. South Side's design ranges between inventory and ornament, using abstract and familiar building elements from historical and vernacular architecture.

Although the architectural implications of the South Side are rational, still reading toward Modernist and postmodern values of material and invention, another comparison falls into place. Herman Hesse's Central Becher Building in Apolda, Holland (PA, March 1988, p. 93), is a "city within a city," and its unfinished qualities are intended to encourage a spontaneity amongst its users without returning to familiar or vernacular evictions. Central Becher and South Side succeed in their negation of mechanistic provisions for flexibility a la Centre Pompidou, and both express a hybrid between the anti-technocratic attitude of the Rationalists and the modernist notions of Le Corbusier. It is apparent that South Side is foreign to the Middle American setting in Columbus not only by comparing it with European examples, but by noting the reactions it elicits from the local architectural community, who see the building as an outcast there.

The myth of contextuality

The recent interpretation of contextuality in America involves imitating or referring to what is around. And "around" means the plagiaristic elements of architecture, confused and contaminated by ornamental, expression, and sentimental values.

The abstract qualities of contextuality practiced at South Side allow a new, existing architecture which does not depend on any current fashionable fad or ideology. Although both layingmen and architects are impressed by the instant gratification brought on by the new or antiquated and exoticism, the ideas of contextuality contain a far higher potential: the creation of an architectural culture expressing popular and refined values alike. Without analyzing the potential of contextuality through serious research, and without prototypical and large-scale architectural demonstrations, the Post Modernist revolution remains another.

The history of the Settlement

While Post Modernism has sought its identity in the renaissance of images from the past, the architecture of the South Side Settlement Center has its identity in the political past of its movement. Liberals and the church created settlement houses in the 1880s in order to share their cultural resources and live with the poor. Before branch libraries, playgrounds, and opportunities for the poor to see cultural events, settlements provided classes, clubs, outings, and kindergarten. Most settlements served immigrant populations, offering, for example, English classes and lodging for migrant workers. Some sought to integrate the new population while others worked to retain the culture of the new arrivals. Today their goals have not changed, but their methods have. They work for community change and towards solving community problems rather than community service.

These goals were difficult to achieve in the old, rundown building South Side Settlement occupied. After deciding to build, they were eager to create a building which "ought to reflect who we are socially, to express the abstract ideas." (Barbara Stowell)

The staff and the board of the South Side Settlement Center were architecturally untrained. David Tritt, a VISIA architect working with them, slowly educated them about their needs, programming, and architecture itself. They went on field trips to Columbus, in to see architecture which might suit them. When they were finally ready to look for an architect, they knew what they needed. After interviewing local and national firms, they were pointed toward the Children's Learning Center by Studio Works (PA, Nov. 1973, p. 106). They found its architecture closest to their own, and this building without clinging to any particular kind of architectural expression. Committed to the idea and process and not to the stylistic cliches, the architects came "to the town and stayed for about six weeks" the first time they arrived. They lived in houses, and got to know the people and worked as a team, an approach very compatible with the structure of the Settlement. Their small firm made it possible to be involved in the innovative development of central issues and ideas of architecture opposed to the business of making buildings (Mangurian).

After the design for the building was unveiled, it won a design award in Progressive Architecture's Awards program of 1970. The scheme consisted of six parallel corridors, "superstructures" with interwoven arches creating a series of spaces of multiple social order. Adapting the ideologies and aspirations of late Modernism and the abstraction of functional ideas, the architects had to be abandoned after his original short of the original goal. After the end of the project, the architects went back to the drawing board to design a new building.
The second time around

They emerged with a building capturing all the criteria the client set out for them:
A building that expresses the conceptual and abstract ideas of the settlement in a political as well as cultural, into built form.
A building that opens new doors of perception to the users.
A building that fits into the neighborhood. A building that makes sense.

The first scheme, designed by Richard Rogers in 1960s, was praised for its architectural innovation and its use of mass-produced materials. The second scheme, designed by Peter Zumthor in 1973, was characterized by its use of natural materials and its integration with the surrounding landscape.

The present scheme, designed by Robert Venturi in 1975, embodies ideas about architecture that emerged in the late 1970s. Venturi's idea of the "vandalism" of architecture is reflected in the current scheme. The new sensibilities are related to the work that is being done in Europe, in the Kieler brothers' effort to reconstruct cities and Aldo Rossi's analysis of traditional urban typologies.

Their influence also extends to the design of the building. The structure is a "fitting" into the environment. The fit is achieved by the planning of the building, not by detailing. The design of the building is not a regular neighborhood home. The choice of materials and the way they are used gives an impression of an atmosphere that echoes the neighborhood pattern of detailing without being too visually striking.

The use of materials and the integration of the building with the surrounding environment is what the client refers to as the "add-on" and "architectural environment of the South Side.

The contextual fit is not, as in many Post-Modernist examples, achieved by situating elements of the neighborhood in the building but rather by abstraction and simplification of the building types and masses indigenous to this particular neighborhood. The urbanism of the city, the work of the designers, the architects of the ideas to form a coherent architectural culture. What Quatremére De Quincy, a French critic of architecture, wrote around 1800 in his "Dictionnaire d'Architecture" applies again today: "... the type presents less the image of something to copy or imitate completely, than the idea of an element that has served as a model. Everything is precise in the model, while everything is more or less vague in the type."

A city within a suburb

On a residential site, two blocks from a supermarket and other urban remnants, the buildings are marked out on the ground as masses of different functions. The clinic, the gymnasium, the workshops, the theater, and the central administration building are housed in distinct, separate buildings. Bearing different meanings to the community, they can be entered individually. The theater, the most public part, pronounces its separation by lifting away from the community of the complex as a whole.