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VAN BUREN RIVERFRONT METAMORPHOSIS:

THE DEVELOPMENT OF SPACE

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Abstract:

Waterfronts have played an important role in the settlement of North America. Not only did waterfronts provide protection and security to newly forming settlements, but these waterways also provided the opportunity for trade while acting as a major hub of activity and social interaction. Ironically, the waterfront that was the genesis of the city was often neglected after the introduction of the steamboat and the railroad as well as industrial advancements. Polluted and neglected, riverfronts of the cities were in disrepair. Not until the past few decades have larger cities revisited their waterfronts and realized the amenity that lies at the edge.

Van Buren, Arkansas, though not a big city, struggles with the same abandonment of its industrial foundation. The Arkansas River with its origin in Leadville, Colorado, has created a riverfront for the city of Van Buren as well as a historic Main Street. As in many other places, the city has turned its back on the potential of Van Buren's riverfront. The industrial facets of a poultry plant, railroad lines, and a ten-foot high levee wall segregate the city from the riverfront.

The metamorphosis of the Van Buren Riverfront involves creating a mixed-use riverfront development that not only provides opportunities for growth but also serves as an icon for the city. By acknowledging the existing site conditions and respecting the industrial character therein, Van Buren can reclaim the riverfront area as a vibrant edge.

Concept:

The concept that drove the design of the riverfront was derived from the existing architectural character of the downtown historic Main Street. Victorian architecture begins the descent down Main Street, followed by an area of governmental buildings, which include a juvenile detention center and the county courthouse. Transitioning from a governmental significance to an industrial nature, the street is bisected by two lines of railroad tracks that act as a switching yard. Proceeding over the tracks and under the trusses of the Simmons Poultry Plant, Main Street is

terminated by an ignored riverfront park. Conceptually, the Van Buren riverfront can be seen as reminiscent of a butterfly. A butterfly, often ignored in its earliest stages, develops into a beautiful attraction of uncompromising attention. The Victorian architecture of Main Street is the pupa of development from which the larva or governmental transition takes place. Wrapped in the chrysalis is the mystery of what the industrial area could become. Through metamorphosis of this plan, the resulting beauty of the riverfront has been given wings.

Just as in a butterfly's metamorphosis, Van Buren has gone through changes in appearance, character, and function- changes that cannot necessarily be seen taking place; but, like a butterfly forming within a chrysalis, the change is happening.

Goal:

Like other larger cities that have revitalized riverfronts, Van Buren is perfectly poised to reap benefits of reconnecting with its riverfront. A riverfront master plan began with the realization- that downtown Van Buren needs to acknowledge the amenity at its edge. The master plan would include: a mixed-use riverfront development to provide opportunities for growth and development; a much-needed reconnection of the riverfront with downtown; and elements to serve as icons for the city and to promote its appreciation. Capitalizing on the riverfront's location relative to downtown mixed-used development would allow for a connection necessary to sustain and enhance the downtown area while creating an urban green space. Establishing a connection with the riverfront to the surrounding downtown location would foster an appreciation for both the built and natural environment. Embracing the industrial aspects of the site and varying its architecture and function- would turn initial site constraints into opportunities for recognition of the riverfront environment.

Program Development:

To make the Van Buren riverfront separate and unique, the program elements within this design would not only include what other riverfronts already had but also build on what they did

not have. In what ways could Van Buren's riverfront development be given what other riverfronts had and more? How could people be able to interact safely with the water and experience its power and at the same time know its peace?

Precedents allow designers to see the successes and failures of things that have already been done. Although each city should be considered independently, based on its individual needs, precedents also give invaluable insight as to future needs for growing cities. Aker Brygge in Oslo, Norway, an international waterfront, was chosen as a precedent based on its sound mixed-use development. On a smaller scale, Central Riverfront Park in Cincinnati, Ohio, was the precedent selected based on its sense of place in association with the river. Louisville Riverfront Park in Louisville, Kentucky, on the other hand, was once an industrial site that has been revitalized and today has great visual appeal. These projects were chosen as precedents in an effort to synthesize the best possible design solution for the waterfront revitalization in the city of Van Buren.

Aker Brygge is an international waterfront that is worthy of exploration. Once a major industrial shipyard, the mixed-use redevelopment now attracts an estimated six million people annually with its wide variety of cafes, retail shops, and office space. The development also houses two movie theatres, a kindergarten, and a decorated harbor-side entertainment site. The design is not only a combination of brilliant architecture, but also an intelligent planning of spaces that is sensitive to people while maintaining the primary focus on the waterfront. It maintains intimate spaces that relate well to the scale of the buildings. Aker Brygge, which is close to downtown and to the city's historic City Hall, is designed to respect its connection to the older part of the city while introducing an exciting new architectural style.

Central Riverfront Park in Cincinnati, Ohio, was another case study that was investigated. Just as the Arkansas River helped to establish Van Buren, the Ohio River played a major role in the settlement of Cincinnati and its subsequent development. Central Riverfront Park's proximity to the downtown Main Street and the seasonal flooding the park undergoes make this park comparable to the Van Buren riverfront. The park design strives to create a riverfront setting that acknowledges the river and the influence it exerts over the surrounding landscape.

Another precedent that was studied, Louisville Riverfront Park in Louisville, Kentucky, is a great example of the revitalization of an industrial site. Warehouses, barge facilities, and junkyards once lined the water's edge. Today the city has taken back its waterfront. The riverfront park is 80 acres of environmentally sensitive parkland that has been creatively engineered to provide flood protection. The park has won popular acclaim because of its great lawn used for games and concerts, its festival plaza, its children's play area, and its sculpted linear park.

The study of each of these waterfront areas resulted in individual insights as to possible program elements that could be potentially beneficial to the Van Buren riverfront. The Aker Brygge waterfront demonstrates the positive potential of a mixed-use development. To increase the number of people using the riverfront, there must be a variety of different uses—uses that are both active as well as passive—all the while maintaining the primary focus that attracted the users in the first place, the water. Study of Central Riverfront Park in Cincinnati, Ohio, contributed to the development of an icon for Van Buren. Central Riverfront Park paid homage to the Ohio River through interpretative and historical program elements. Van Buren needed to harness the power of the river in a similar way, a unique way. The industrial nature of Louisville Riverfront Park prior to its revitalization was comparable to the present image of Van Buren. Could a compromise be made between industry and nature, and could the industry be made to be beautiful?

Looking to each of the precedents for program development made obvious the need for a mixed-use development in a close but reverent relation to the river: a riverfront that would reveal not only the power of the water but the attraction at the water's edge while maintaining architecture that was appropriate to both new and historic uses of the site.

Constraints into Opportunities:

As part of the design process, both opportunities and constraints must be considered. An initial site constraint is the poultry-product industry of Simmons Incorporated. The Simmons Incorporated plant spans across Main Street, blocking the view of the river and making entry to the existing riverfront park difficult. Since Simmons International comprises buildings that are of an industrial nature, there is an opportunity to build upon and enhance the existing architectural image. Changing the function, improving the appearance, and improving the visual character of the plant would increase the viability of the riverfront by attracting users.

Another site constraint is the two railroad tracks as well as the idle railroad lines that divide the site. Unfortunately, there have always been negative associations to the railroad with regard to safety. For example, a 1920's film, "Teddy at the Throttle," portrays a notorious image of railroads that often comes to mind. A woman has been tied to the tracks in the path of an approaching train and is waiting for a hero to rescue her. Society says we can interact with subways, buses, metro stations, etc.; but when it comes to trains, we perceive danger. The railroad tracks within this particular site are connected to a transition zone - a track-switching yard - so trains travel within the site only at a very slow pace. The riverfront development will create opportunities or people to see the function, build upon the appearance, and disassociate old ideas of negativity with maintaining a healthy respect for railroads.

The levee wall that also doubles as the historic wall mural poses a problem for the riverfront connection. While the intent is to retain the Arkansas River in the event of flooding, it also acts as a major divide between the city and the riverfront. The riverfront can be seen and accessed only by a fifteen-foot-wide entry through the wall. Sculpting the riverfront park with landforms that would act as a levee as well while functioning as a detention basin in times of flooding would allow removal of the levee wall.

Vertical Ideas:

Joseph Beuys speaks to all by saying, "Man is only truly alive when he realizes he is a creative, artistic being," and that "even the act of peeling a potato can be considered a work- of art if it is a conscious act" (Fineberg, 1940). The Van Buren site needed a defining feature— something that would tie the entire site together as well as capture the power of the river; consequently the works of various artists were considered. Because the site already had such a strong industrial nature and the need for an icon was prevalent, industrial artists and more radical artists were the primary focus.

The works of Bernd and Hilla Becher, a couple whose black and white photography focuses on industrial and domestic structures such as gas tanks, coal silos, blast furnaces, grain elevators, preparation plants, oil refineries, framework houses, and water towers as their primary architectural subject matter, were utilized for inspiration. Christo and Jeanne-Claude, another collaborative couple, have done many projects that are inspirational as well as extraordinary. Christo and Jeanne-Claude enjoy using real objects such as oil barrels, bottles, or buildings. Stacking them, wrapping them, or packaging them, Christo and Jeanne-Claude take the ordinary and create something enticing, giving the objects new life.

Intriguing as well as inspirational, Bernd and Hilla Becher capture radical existing structures within the landscape that we have grown to accept aesthetically. On the other hand, Christo and Jeanne Claude take radical approaches within the landscape to attract the viewer. In the work of Bernd and Hilla Becher, various shapes and sizes are the result of form following function; and, although the resulting function is not always portrayed in the most beautiful form, one can envision the radical Christo and Jeanne Claude taking these various forms and wrapping them in creativity.

A catalyst of ideas from these artists inspired the design process. One such idea was that of an industrial icon that would respond to the industrial character of Van Buren. Twenty solitary wind turbines, known as the Middelgrunden Wind Turbine Co-operative, the largest offshore wind farm, stand firm in the Oresund Channel between Denmark and Sweden and became the icon source. Not only are these industrial wind turbines beautiful, but they are also functional and their purpose beneficial.

Although there would not be sufficient wind to power such a structure in Van Buren, other similar alternatives were considered.

The Design:

Conclusions were made after consideration of site constraints as well as evaluation of several design alternatives. In response to the existing grid and the topography of the site, the master plan is a continuation of that grid with strategically-placed nodes of activity that allow for both visual and physical connections to the riverfront. Designed to target future growth and expansion in all directions of the site, the master plan also utilizes the power of the Arkansas River and is sensitive to the floodplain within the riverfront park (Figure 1).

The initial site concerns in the design of the master plan were the existing buildings and the floodplain. The Simmons, Inc. buildings would be maintained, but their function would change to that of a mixed-use area, specifically aimed toward attracting people. The riverfront park, on the other hand, would be maintained as an open, urban green space capable of retaining water in times of flooding. Development on the river would be of minimal scale because of the necessary elevation changes that would have to be made. Elevating structures within the riverfront park might take away from the river and create a further separation from the natural environment.

The central node within the design, the marketplace plaza, has been developed in response to the major node on Main Street- the railroad depot/chamber of commerce (Figure 2). From the depot, an intriguing view to the marketplace plaza has been established by a semi-transparent tensile structure held in place with steel cables. The placement of this node allows traffic to penetrate all the way to the riverfront, benefiting existing businesses along the way.

Bordering the marketplace plaza to the southwest and bounded by the Arkansas River is the secondary node to the marketplace plaza- the riverfront amphitheatre (Figure 2). The organic shape of the amphitheatre with the moveable stage island was formulated so that boaters can actually come into the riverside area to experience staged events. The terracing of the amphitheatre allows people to interact with and also allows staged events to occur even during times of increased water elevation.

Another major node within the design is the Jefferson Street Bridge (Figure 3). The bridge offers excellent views of the downtown area as well as the happenings within the switching yard- views that cannot be appreciated from a vehicle. Because other streets already establish a way over the railroad tracks, it was decided that the Jefferson Street Bridge should become a pedestrian-only bridge. A pedestrian bridge would provide opportunity for mixed-use development on the bridge to attract people from the downtown area and gradually pull them to the river's edge. The bridge, providing the best vantage point to view

the downtown area and the river icon, would become a major linkage between downtown and the riverfront park.

The end of the Jefferson Street Bridge literally supports the secondary node that consists of sculpted landforms that cradle a skate park (Figure 3). Wire cables span from the end of the Jefferson Street Bridge into the park to evoke the tension that has given shape to the landforms, all the while mimicking the movement of a caterpillar on a leaf. The skate park design is unique in that the landforms have been sculpted in such a way as to allow onlookers the safety and comfort of an elevated viewing platform. The landforms wrap around to the opposing side of the Jefferson Street Bridge and skate park where a bridge has been constructed to continue and complete the curve of the existing Jefferson Street Bridge. Cables from the continuation of the Jefferson Street Bridge anchor to the earthwork and mirror the same struggle of the opposite feature. This bridge is programmed to celebrate the Arkansas River with a barge ride that makes a circuit up and down the river, allowing passengers to experience the water-sculpture garden

The water-sculpture garden consists of water mills, similar in concept to a windmill or a wind turbine. These two-bladed icons, staggered three deep, complete the visual axis of the (Figure 4). Powerful and vast, much like the existing industrial structures in Van Buren, these icons demand attention and attract people to the riverfront edge. The electricity generated by these icons, in combination with the current of the Arkansas River, powers the component of the water-sculpture garden that functions at night.

At night, the other element to the sculpture garden comes to life. The night component is a lighted sculpture shaped like the tail of a shooting star. Proper engineering keeps large, illuminated pieces of slag, a bi-product of glass, weighted just below the surface of the Arkansas River, allowing the riverfront to become a spectacle that can best be viewed when traveling across the bridges that connect the cities of Van Buren and Fort Smith. Contemporary, industrially-designed buoys connected by steel cables keep boaters at a safe distance from the water garden but do not create a visual barrier.

Complementing the water-sculpture garden are the curbside drainage feature and railroad plaza water features. Together, these three features act as a unifying element that ties the entire site together. The curbside drainage feature with removable grate collects storm water runoff, but also acts as a light feature at night. The same slag material used in the water-sculpture garden allows the drainage feature to glow at night, providing an icon of visual interest as well as a way-finder to the riverfront park. The railroad plaza comprises a promenade of cafes and shops running parallel to the riverfront. The railroad plaza provides an area of interest with a seat wall that acts as a misting-water feature reminiscent of the steam from old railroad engines. The plaza also contains a light feature at a safe distance from the

railroad and allows visual interaction throughout the site (Figure 4).

The tertiary node slightly to the northwest of the marketplace plaza is intended to spur the opportunity of growth in that direction. This sculpted landform acts as another entry into the park allowing access for that side of downtown. Another half-bridge mimics the continuation of the Jefferson Street Bridge. This bridge as well is programmed to celebrate the Arkansas River and provide an overlook onto the children's playground that is cradled within the sculpted landforms.

Phasing:

In order to allow development to occur financially, phasing would be necessary. If phased properly, each phase of development would economically prepare for the next phase. Within each phase, the major nodes establish connections from downtown to the riverfront.

Phase one, the catalyst for the riverfront development, was established at the terminus of Main Street in response to the major node atop Main Street-the railroad depot and Chamber of Commerce. It is a mix of places of entertainment, with the marketplace plaza and amphitheatre nearby, as well as retail shops, restaurants including a cafe/coffee shop, a hotel, and loft apartments. The architecture is open and interactive within this phase, allowing views to the river as well as the train plaza. The sidewalks are busy with shoppers and outdoor eateries.

Phase two sets up further development of retail shops, restaurants, and loft apartments. Major development of the riverfront park, including the skate park and under-the-bridge parking, takes place. The levee wall is removed and replaced with sculpted landforms that act as a detention basin in times of flooding. A trail weaves throughout the riverfront park at an elevation that offers views onto all the happenings within the park and onto the open green spaces. The Jefferson Street pedestrian bridge, with under-the-bridge parking, plays a major role in this phase, providing the connection back to downtown and offering the best views of the site, including the Arkansas River. The bridge is programmed with a lookout tower as well as restaurants and some retail establishments.

Phase three completes the other half of the riverfront park but still allows for park expansion within this particular area. Development along the riverfront is much like that of phase two, but it also programs arts and cultural development as well as commercial opportunities. In addition to parallel parking throughout the site, another parking lot has been placed here to support growth within this area of the site.

Phase four makes the project complete, providing the icon for day and night view. The water mills and illuminated water-sculpture garden make this phase a stand-alone attraction. Because the icon will attract people, the two half-bridges have been

designed for views as well as for leisure programs — barge rides and fishing areas—that celebrate the river.

Conclusion:

The riverfront redevelopment master plan changes the relationship of the riverfront to the downtown. Not only does it reconnect the two and serve as a welcoming front door, but it also does so with the added benefit of increased potential for economic development and people presence. In doing so, it accomplishes the primary goal of bringing people back to the riverfront—not just for special events, but continuously through the new residential

opportunities in the adaptive reuse of existing structures. Further, the riverfront redevelopment master plan creates opportunities for spaces and activities that will serve residents and visitors while creating an icon for the city. The metamorphosis of the riverfront has been given wings.

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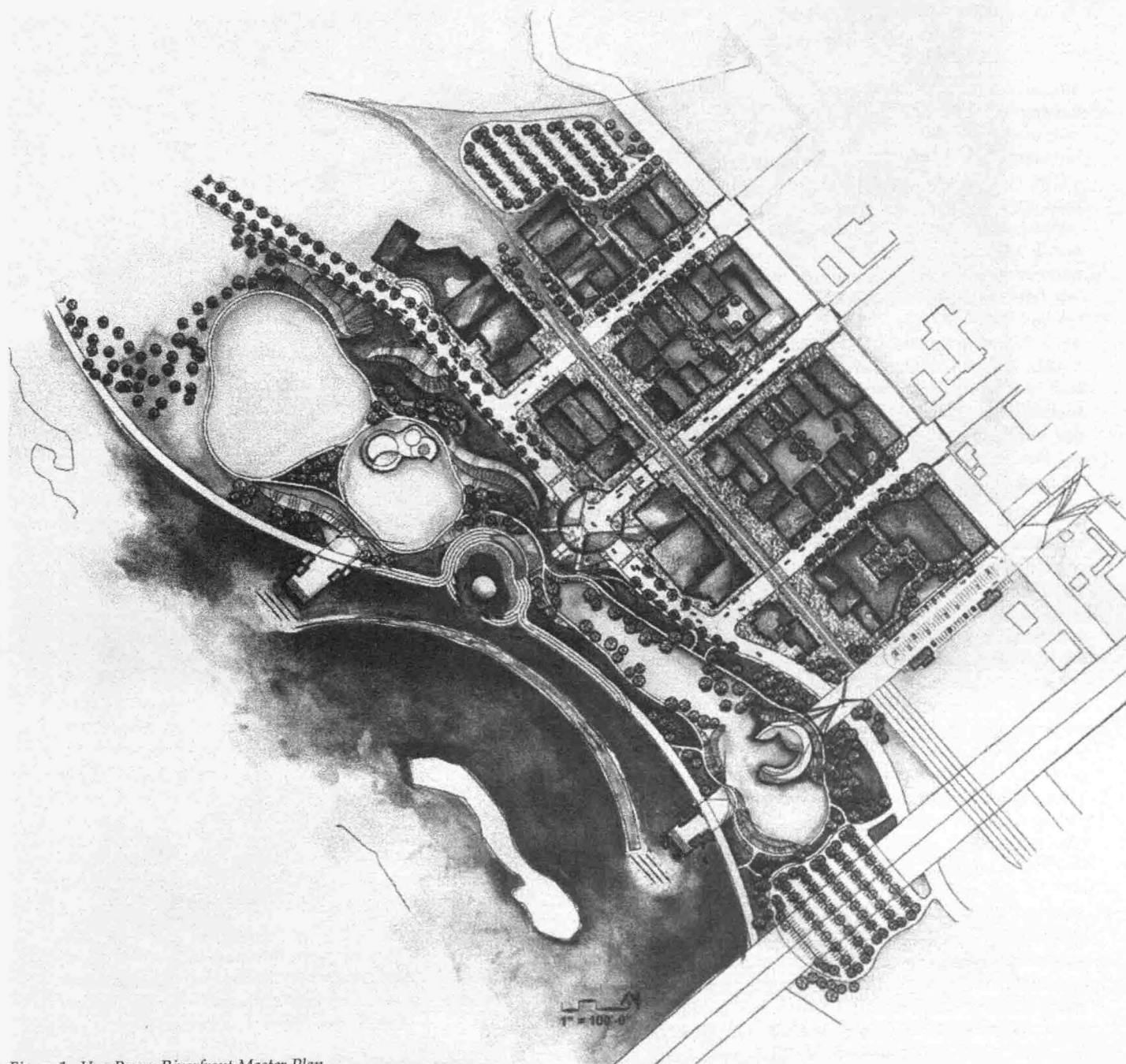


Figure 1. *Van Buren Riverfront Master Plan*.

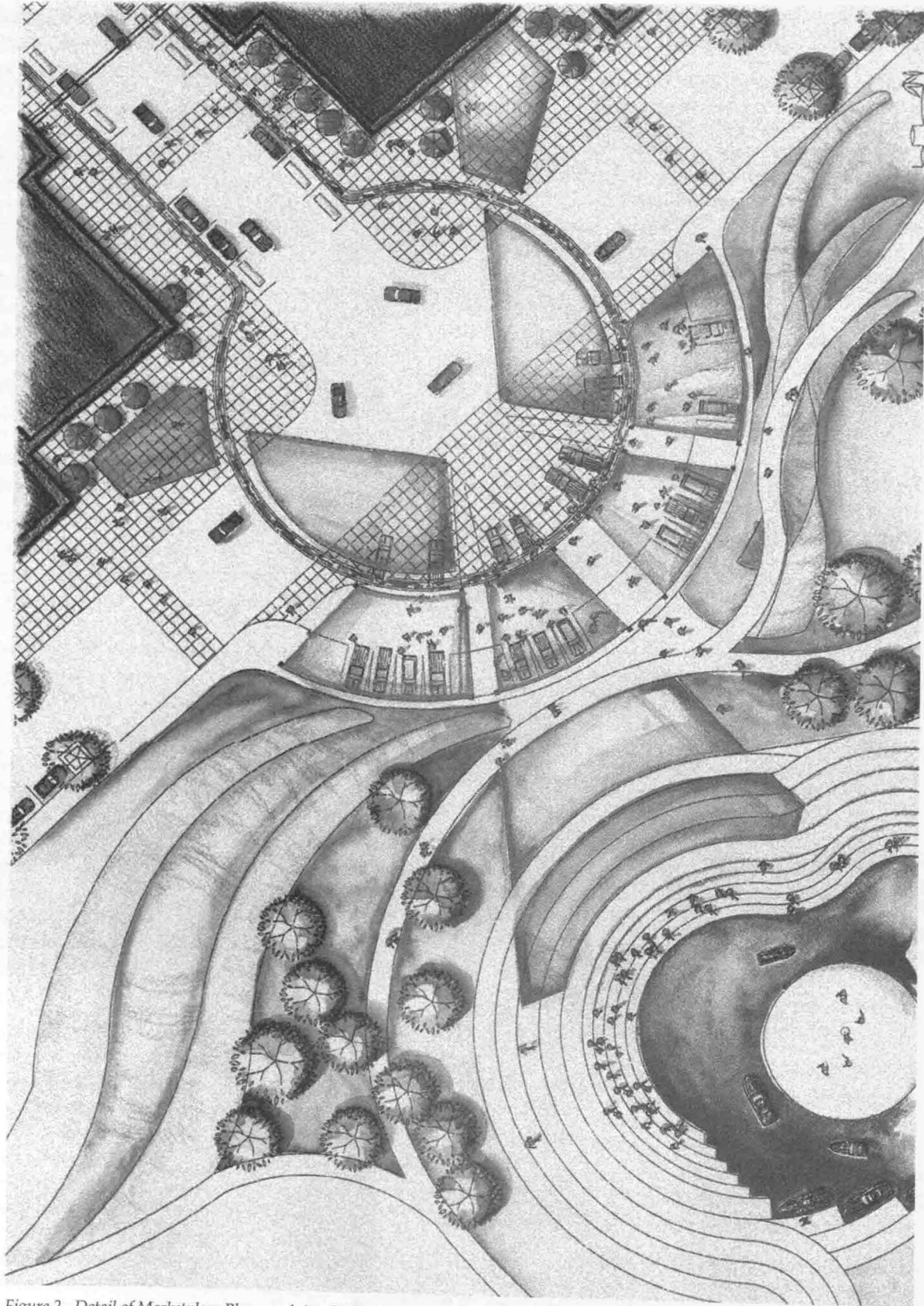


Figure 2. Detail of Marketplace Plaza and Amphitheatre.



Figure 3. Section of Watermills, Sculpted Landforms, and Jefferson Street Pedestrian Bridge.

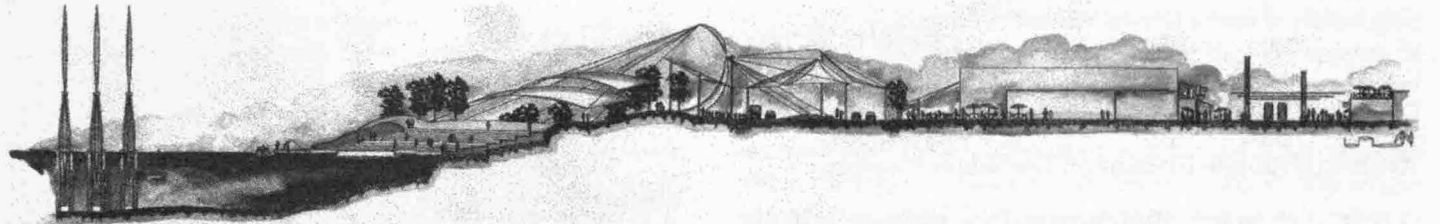


Figure 4. Section of Watermills, Amphitheatre, and Railroad Plaza.

Faculty comment:

One of Ms. Gregory's faculty mentors, Mark Boyer, writes:

It is not uncommon for our students to choose senior projects that re related to their hometowns the territory is familiar and it gives students a chance to give back to their communities. It is, however, unusual to have a student take a hometown project as far as Juana did in hers.

Juana wanted her project to be the catalyst for enhancement of the Van Buren downtown. Juana used our standard design and planning processes to accomplish this project. After deciding that the type of project she wished to do was a riverfront redevelopment, Juana sought out precedents across the country and Europe to research the "state of the art" of practice in this arena. This search even led Juana to undertake a two-week intensive tour of riverfront redevelopments in Sweden, Denmark, and Norway to learn what approaches are being used for success.

Returning home, Juana set out to inventory and analyze the elements of Van Buren's downtown and surroundings. Through this work, Juana found both inspiration and opportunity to apply some of what she had discovered in her research about riverfront redevelopments. Her conceptual idea of metamorphosis was strong and derived from what she experienced in Van Buren. She was able to look at Van Buren in a new light and see elements that could be used as design inspiration and to create an identity for the city. She generated several design alternatives and, with the help of the faculty, evaluated those alternatives and chose one to develop further. Juana used this riverfront redevelopment to solve problems, create opportunities and build connections between the riverfront and downtown Van Buren.

While Juana utilized standard design and planning

approaches to complete her project, she did not simply apply standard solutions. What makes her project unique is that she allowed the sense of place that already existed in Van Buren and the inspiration of her research to speak simultaneously to generate the solutions to problems and venues for under-utilized opportunities. Through Juana's design development, she was able to accomplish the necessary flood protection and create a vibrant and inviting connection between the new riverfront development and the existing downtown. Her work represents the highest level of critical and creative thinking—a level that we would like for all of our students to exhibit. It shows a meritorious ability to research and translate that research into appropriate application to the current design problem. This project exemplifies the capabilities of landscape architects and the role we can play in creating places that make a difference for people and communities.

Juana's ability to work from the scale of planning to site design to detail design also serves as a standard to which other students should strive. She was constantly coming to me with a new idea of how something she found could be incorporated into her development or how some detail could be a further explanation of the conceptual idea. Juana did not stop at designing the riverfront for Van Buren. She watercolored the final presentation drawings and made two models when only one was required. These two models were working models where she poured concrete and gutter lighting system, and welded steel elements together to provide an image of the windmill icons. She incorporated music and video clips in her PowerPoint presentation to convey both what she saw in Van Buren and her vision for the riverfront redevelopment. She went on to apply her design concept to the design of her project report. She even went so far as to design special pages on which to print the documents and design and build special containers in which to house them. This level of excellence sets Juana's work on the pinnacle of student submissions.