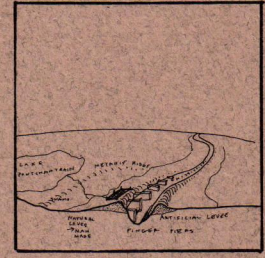
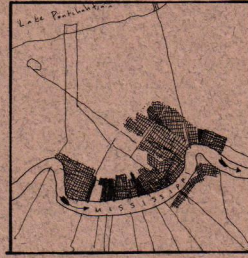
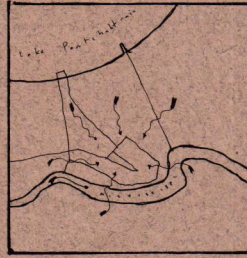
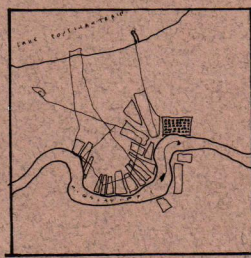
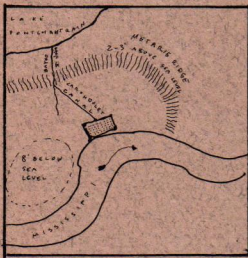
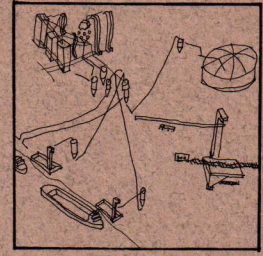
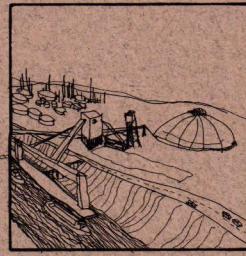
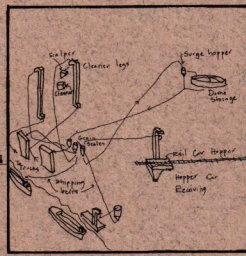
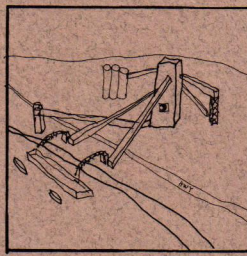
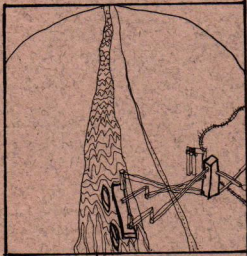


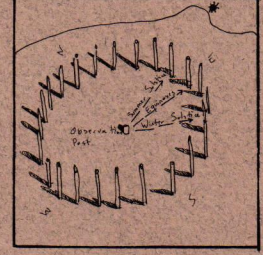
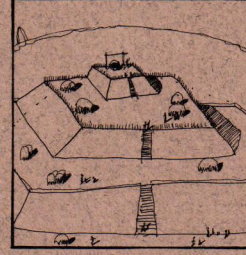
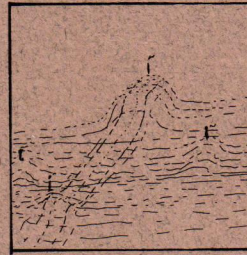
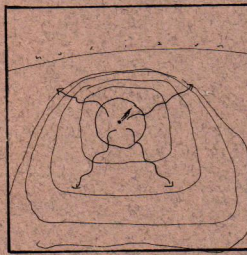
The Fourth Coast: An Expedition on the Mississippi River



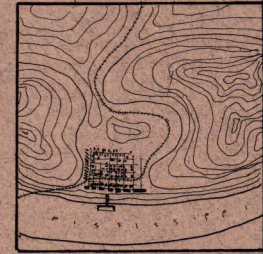
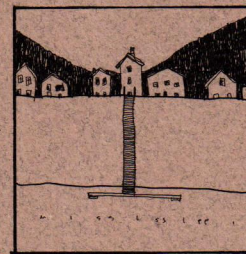
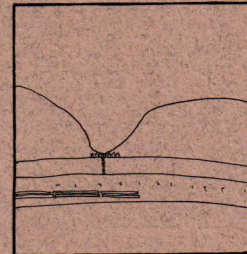
new orleans



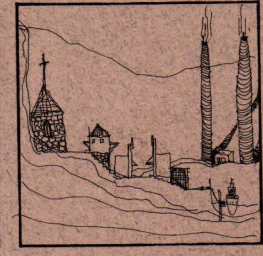
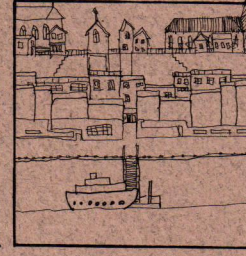
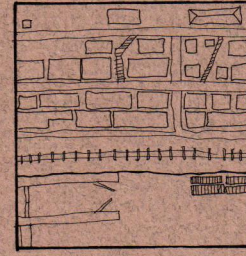
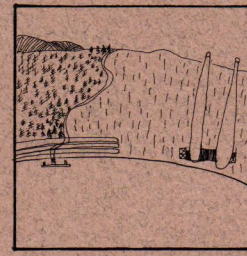
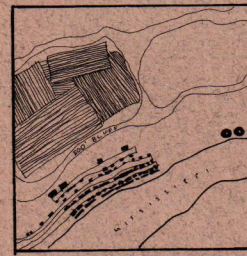
terre haute



cahokia



bellevue



alma

Editor's Notes

In summer 1990, a group of twenty-one students and faculty from the Design Center for American Urban Landscape of the University of Minnesota and some thirty occasional participants — additional faculty, artists, writers, architects — journeyed up the Mississippi River (the Fourth Coast), exploring the settlements along its shores. After flying to New Orleans, the journey began by automobile, transferred to the passenger vessel Viking Explorer at St. Louis, Missouri, and finished with a drive from St. Paul to Lake Itasca, Minnesota, and the icy rivulet that is the Mississippi's beginning.

Together, William Morrish, Director of the Design Center, and Catherine Brown, Coordinator for Special Projects, organized the trip, and in this issue of *Design Quarterly* they describe their travels and illustrate them with extraordinary drawings and photographs made by the trip's participants. These images illuminate and analyze significant sites in and around many river communities.

The Mississippi journey was the first large-scale project undertaken by the university's Design Center, which was created only three years ago. The Center's mandate is to bring design back into the planning of the urban landscape, a discipline that in recent years has been involved primarily with social and political issues, economics and statistics, neglecting, to a large degree, design issues. As a part of their quest they hope to bring more humanity and geographic understanding to urban design, and to search out what is American about American cities in order to avoid what has become the standard solution in the United States — an aping of European urban form.

The search for urban form is not new to Morrish and Brown who came to the Midwest from California where they had a design practice in which they studied the landscape of the West Coast with the same intensity and fascination they have brought to the Fourth Coast.

The Fourth Coast, which in the nineteenth century was the lifeline of mid-continent America, has all but ceased to be an active, vital element of that region's urban life. With the exception of St. Louis and New Orleans, in most Mississippi communities the river now plays a much quieter role centered around recreational activities. The primary undertaking on the waterway above St. Louis is that of the Army Corps of Engineers, which is responsible for the twenty-six locks and dams that currently control travel up and down river. Because trains, cars, trucks, and planes have, in that order, replaced river vessels as the major carriers of goods and services in mid-America, many formerly lively river towns have become backwaters, infected with the same diseases that plague many of America's small farming communities — loss of population and loss of significant reason for being, as the old needs are met by new people, systems, and commodities.

How to revitalize these places in ways that make sense in contemporary terms was the challenge put before the Design Center travelers. The group's initial responses to that challenge are gathered here — responses to the raw power and beauty of the Mississippi River landscape — responses that may inspire a new understanding of urban form.

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Design Quarterly 150

THE FOURTH COAST:

An Expedition on the Mississippi River

8 June – 22 July 1990

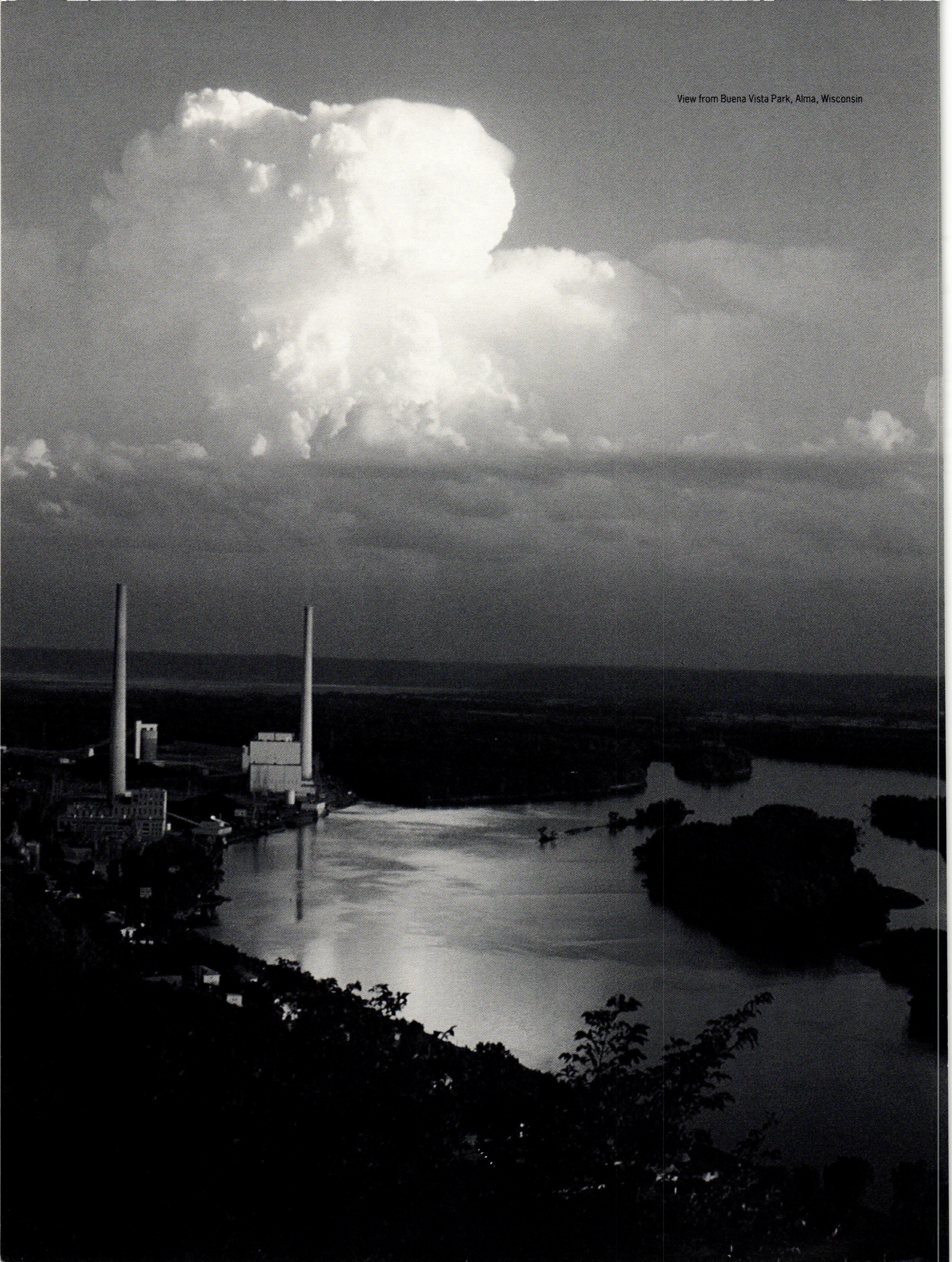
By Catherine R. Brown and William R. Morrish
Design Center for American Urban Landscape,
University of Minnesota

Postscript by Harrison Fraker,
Dean of the College of Architecture and Landscape Architecture,
University of Minnesota

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View from Buena Vista Park, Alma, Wisconsin



An Urban Design Hypothesis

How and why did we lose sight of the idea of a city as the marriage of heaven, water, and earth? When did we lose the will and imagination to build a city as a setting for civilization? ■ To find answers to these fundamental questions, we need to search, to know more, and in pursuit of some answers we planned the Mississippi River expedition — to rediscover America. We sought to read the river landscape and from it to discover principles and elements needed to create a new language for an urban design theory. In the heartland, we hoped to discover design clues overlooked in America's continuing fascination with foreign models, to open our eyes to the "ordinary" as potential vocabulary for construction of the "grand." ■ Mark Twain, aspiring riverboat captain writing in *Life on the Mississippi*, tells how his mentor, Captain Bixby, impressed upon him the fact that he had to learn the entire river by heart, upstream and downstream, by day and night, because "it is all there is left to steer by on a very dark night." He had to know the names of the towns, islands, bars, and bends, he had to learn the shape of the river "with such absolute certainty that you can always steer by the shape in your head, and never mind the one that's before your eyes." ■ The journey was a response to the condition of urban design in America today, both realized and theoretical. At every scale there is a need for intervention and vision, whether it be downtown, city infill, suburban, or rural. But it is particularly the land at the edge, away from the built context, that has been seen as a write-off for designers. This neglect is in

direct response to design predicated on a built context that is more European than American, design that espouses the notion that urban space is created through the arrangement of a building's "figure-ground" or "footprint" in relationship to other buildings, forming a public space or "complementary void." ■ To enhance design education and underscore that view, each year our universities send thousands of students, professionals, and scholars to study foreign landscapes in the hope that they will return with a clearer understanding of our own American landscape. While trips abroad are an essential part of an education, we have not provided our students with an equal opportunity to understand, study, and appreciate the American landscape. The occasional field trip to large cities on the East or West Coasts, leaves a huge gap geographically and conceptually in American design education. ■ Contemporary urban design theory and practice lack geographic perspective and they have contributed to the stereotyping of the nation's urban geography. A single geometric form has come to typify the American survey grid. Fundamental differences in the geographic structure of the nation's landscapes are ignored. These potentially powerful design resources, if acknowledged in the early stages of the urban design process, can establish a genuine framework for place. They can provide a counterpoint to the homogenizing effects of sprawl on our urban landscape. ■ A broader definition for urban design is needed. It should be one in which solutions are drawn from the experience of an emerging heterogeneous environment. An expanded definition begins by including the term "landscape" in its descriptive title. To paraphrase author J.B. Jackson from his essay "The Word Itself," the term landscape in our present urban scene is no longer merely a scenographic or garden image. Rather it offers a unique opportunity for the union of city planning, architecture, landscape architecture, and engineering. The term landscape can include those parts and systems of the urban landscape that, when combined, constitute the "background infrastructure" of our cities. An expanded urban design definition will focus directly on the urban infrastructure, including natural systems, utilities, land use, institutional structures, and technology. ■ What better way to confront this larger landscape than via the Fourth Coast, the Mississippi River. We journeyed there to open our eyes to the heart of the American continent, to the land, people, and urbanism found there. Despite its central location, this was to a large degree an exploration of uncharted waters, unmapped territories, and untested ideas. In the process we became profoundly aware of the resources, traditions, and technologies that can give meaning and form to our design explorations. ■ The expedition was structured to be both allegorical and literal; its symbolic attributes sought to establish a new design rhythm and tempo. The confrontation and exploration of ancient and new places became our test cases — laboratories to describe and decipher a revived design



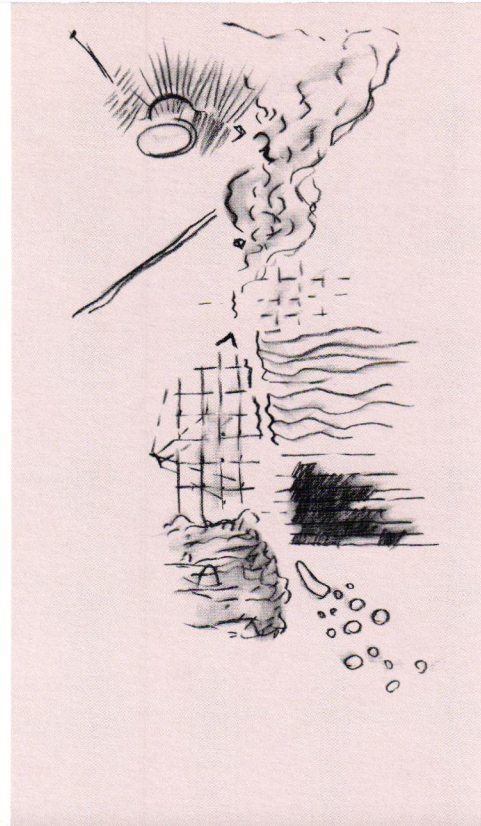
Winona, Minnesota



Cassville, Wisconsin



Main Street, Pilot Town, Louisiana



Mississippi Valley Terrain



Evergreen Plantation, Louisiana

language for American urbanism. ■ The places we visited are unique civilized terrains. The travelers recorded a wealth of case studies that demonstrate compositional principles, formal systems, and understanding of institutional needs and structure within a perspective of urban landscape traditions. ■ From the vantage point of the Mississippi River, we, as designers, gained new viewpoints and perspectives on American urban design. For like the riverboat pilot, we cannot navigate until we know the shape of the American settlement within the American landscape, on its own terms.

Life on the Mississippi

Counter to the expected itinerary, the expedition traveled upstream rather than down. Following the initial concept of discovering information and bringing it home, we began at the Gulf of Mexico at the Mississippi River delta. Continuing on a northerly route, like the earliest explorers moving from the edge to the center, our journey ended at the headwaters of the Mississippi. ■ The expedition encompassed the full dimension of the river's 2552 mile length, which flows through ten states with a total population of forty million people. Splitting the nation, it drains thirty-one states and two Canadian provinces with a watershed stretching from the Alleghenies to the Rockies. Prehistoric and historic cultures have occupied the valley for at least 3,700 years. For four centuries European powers and finally the United States have shaped the cultural terrain through settlement, parcelization, and infrastructure. ■ As explorers we responded by taking stock in order to understand the basic size, scale, order of complexity, and magnitude of this place called middle America. We read, discussed, and listened to local storytellers searching for clues that would explain what lay before us. We thought we knew, but with each passing day this shoreline revealed itself as exotic as any foreign land. ■ We traveled alongside the river's levees, crisscrossed it by bridge, explored its adjacent hinterland, and made passage by boat up the Mississippi's meandering channel with a purpose: to cut through the diverse grain of middle America. From south to north we searched, trusting our eye, setting aside preconceived notions and addressing the Mississippi Valley on its own terms. ■ We began on 9 June at the southernmost point of urbanism, Pilot Town, Louisiana, a small isolated working river community of buildings standing on stilts midst the flood waters at the Mississippi River's mouth, seventy miles downriver from New Orleans. Here the river pilots guide ships from around the world into and out of the Mississippi River Valley depositing their ideas, products, and people. From this southernmost urban gateway, where the landscape is defined more by the silent power of the river's flow than by the signs and symbols of the land, we began

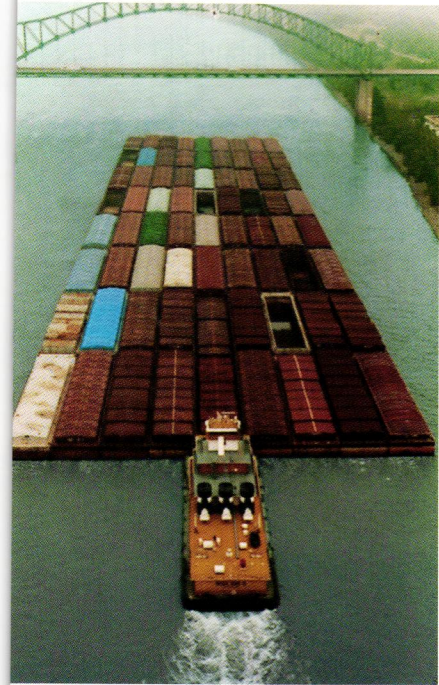
our expedition. ■ For the next two weeks we traversed the river by van visiting sites both on and some distance away from the river. The intensity of travel was heightened by the oppressively hot and humid weather, dramatically illustrating the need for appropriate design responses to climatic conditions. The expedition emerged from the Lower Mississippi on 21 June to board the Viking Explorer, a 112-foot charter vessel, for travel through the Upper Mississippi Valley to St. Paul, a journey of four weeks. ■ Despite a change in travel time from 55 MPH by van to 7 MPH by boat, the intensity did not diminish. The format changed to include more lectures, discussions, and design studio sessions. Weekly rotations of visiting faculty further enriched and challenged the expedition. The result was an interdisciplinary learning laboratory moving on a river that offered new circumstances at every bend and in every town. All together, eighty communities and sites were visited over seven weeks. We explored each town by foot, bicycle, and van to sketch analyze, photograph, and notate. ■ We traveled to develop an understanding of how urban topology derived from interaction between natural process, cultural activity, and assemblage of garden and building, and the infrastructure net that formed the basic background terrain of each place. Finally, as explorers, we synthesized our observations and proposed our own conceptions of place, constructed our own maps and urban landscapes, each time asking what we had learned and how these lessons can help us envision and construct our contemporary American landscapes.

Places of Imaginative Access

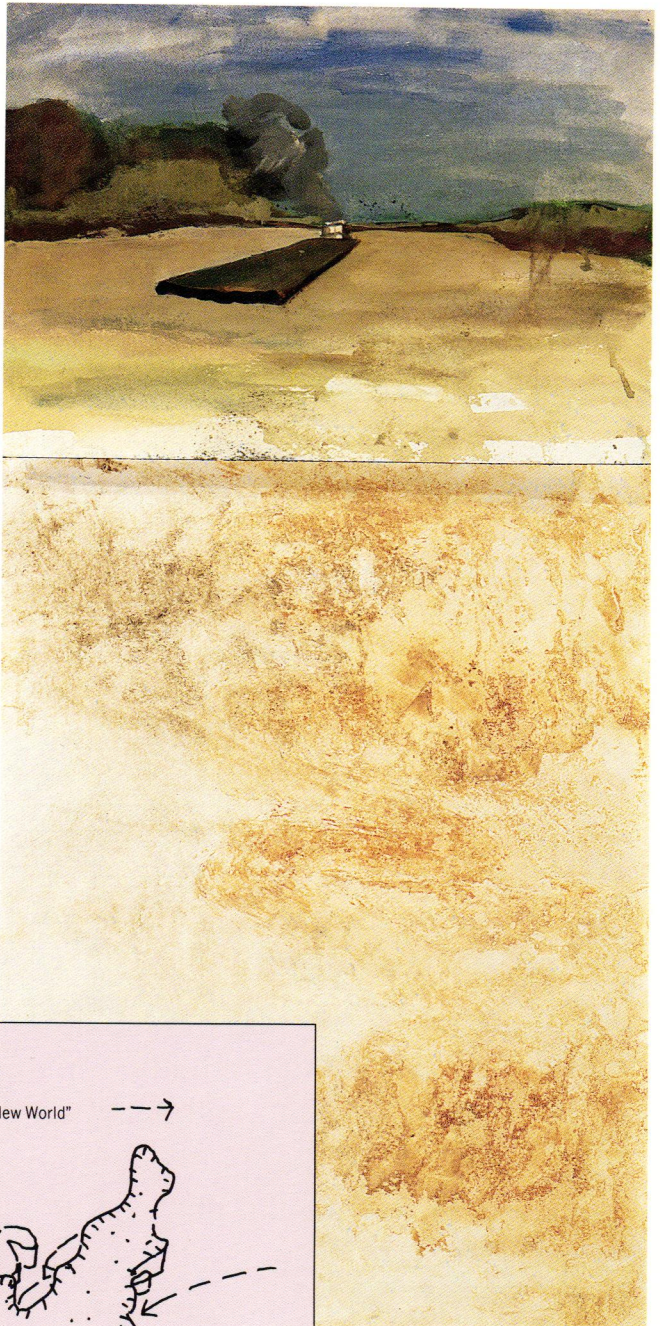
The Fourth Coast

The Fourth Coast is a narrow waterway that joins the western edge of the East Coast and the eastern edge of the West Coast. It is a point of confrontation and transformation where connections to our European traditions begin to diminish in importance and the elements and spaces of our own continental consciousness take over. It is where the dominant building block is open, raw landscape. ■ A coast is a frontier borderline, a point of contact, transfer, and transformation between one dimension and another. The river is less than a mile wide, yet the difference between the colonial east and the broad prairie plain was as profound as the distinction between England and colonial Virginia experienced by our forebears. ■ In 1909, Frederick Jackson Turner wrote in *The Significance of the Mississippi Valley in American History*:

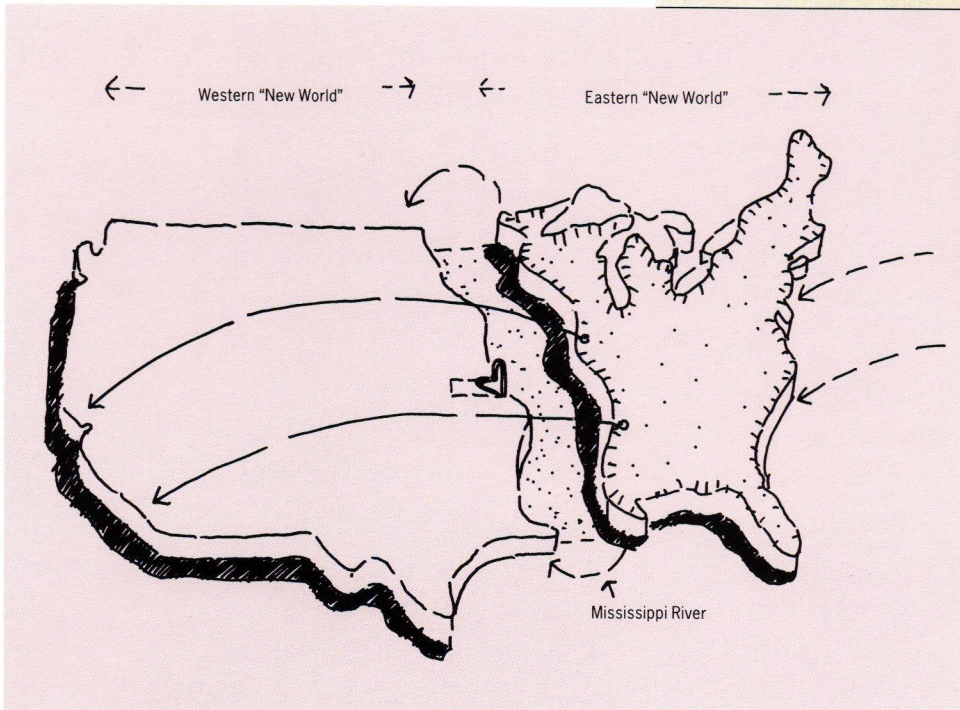
The significance of the Mississippi River in American history at the opening of the new republic, therefore, lay in the fact that, beyond the area of the



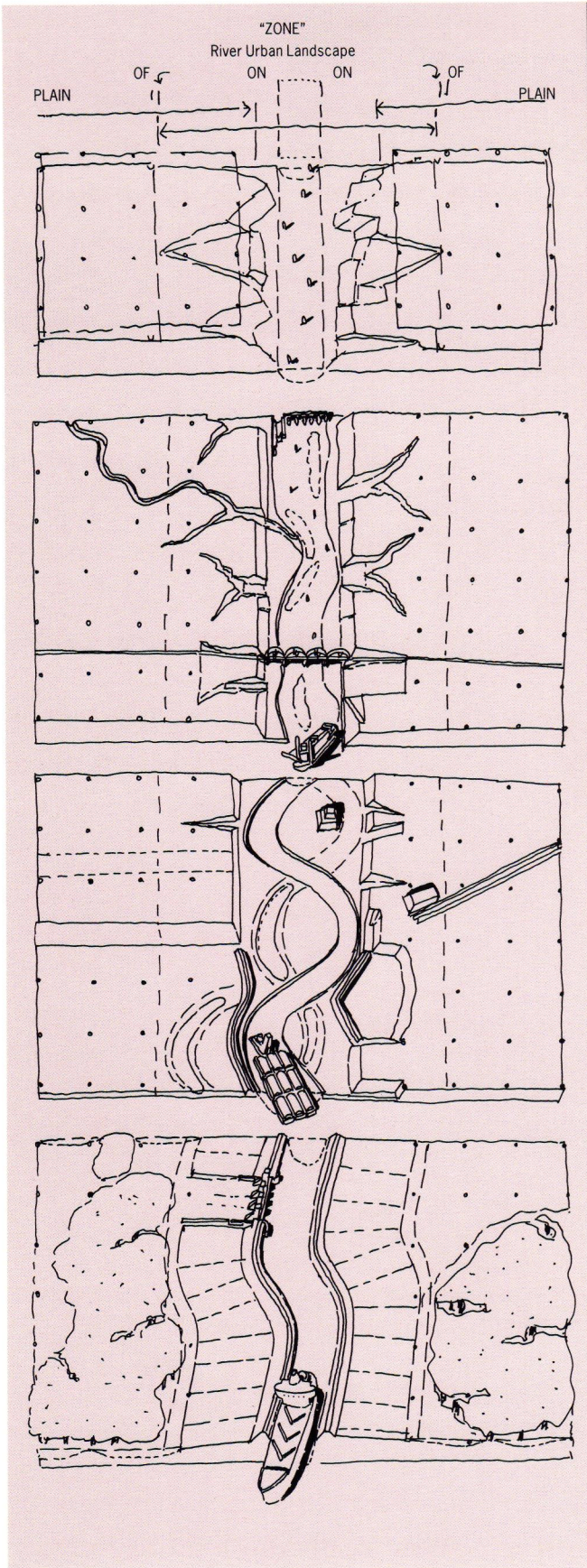
Tow and Barges, Memphis, Tennessee



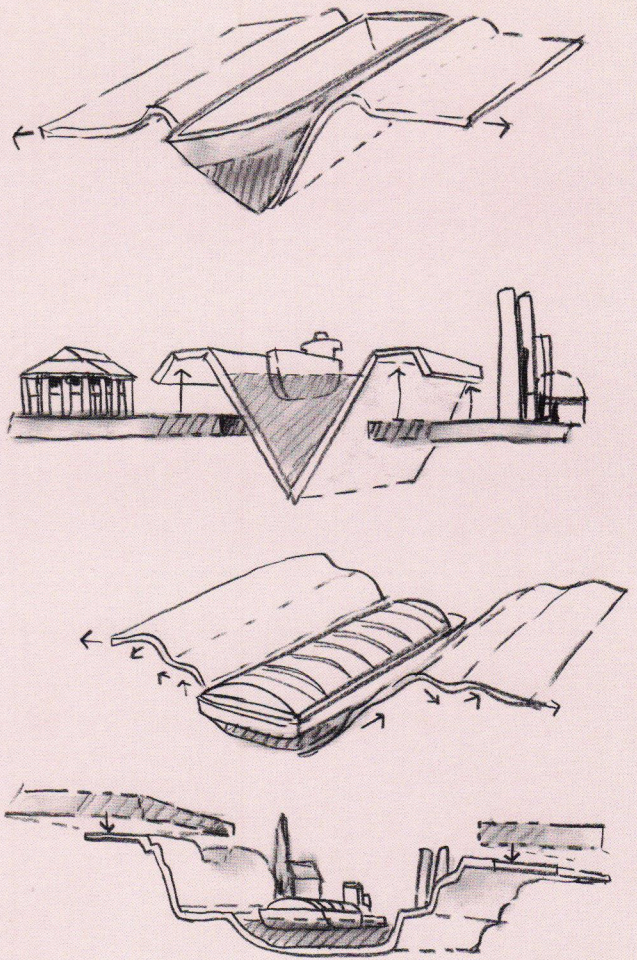
Mississippi Mud



The Fourth Coast



Valleys and Vessels



Vessels—Upriver and Downriver



Lock Number 5A, Winona, Minnesota

social and political control of the thirteen colonies, there had arisen a new and aggressive society which imperiously put the questions of the public lands, internal communications, local self-government, defense, and aggressive expansion, before the legislators of the old colonial regime. The men of the Mississippi Valley compelled the men of the East to think in American terms instead of European.

By the time Congress adopted the Northwest Ordinance of 1787, the borders of the United States stretched from what is now the Canadian border to Spanish Florida, from the eastern urbanized coastal seaports westward to what we refer to as the Fourth Coast, the Mississippi River. ■ This coast held until the 1803 Louisiana Purchase offered the fledgling nation a second new world of opportunity, a landscape open for national self-exploration free from the original colonial constraints and controls that had shaped the urban places of the first new world. Today the Mississippi River's coastlines contain seaports to the world, servicing the heartland. This linear inland sea, like a vast ocean, remains the borderline between the western and eastern American spatial, environmental, and formal concepts of urban place. ■ The Mississippi "Big Valley" is vast and broad reaching, containing over half of the land mass of the continental United States. The eastern half of the valley is a forest-agricultural zone and the western is a drier grassland. The watershed of this river covers 1,250,000 square miles, almost forty-one percent of the continental United States. ■ The expedition to the Fourth Coast sought a fourth dimensional meaning beyond the "ordinary three-space coordinates of length, width, and depth," beyond anything we had considered before.

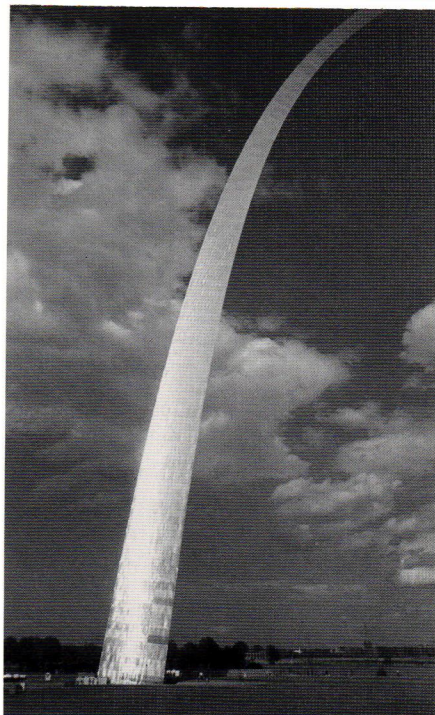
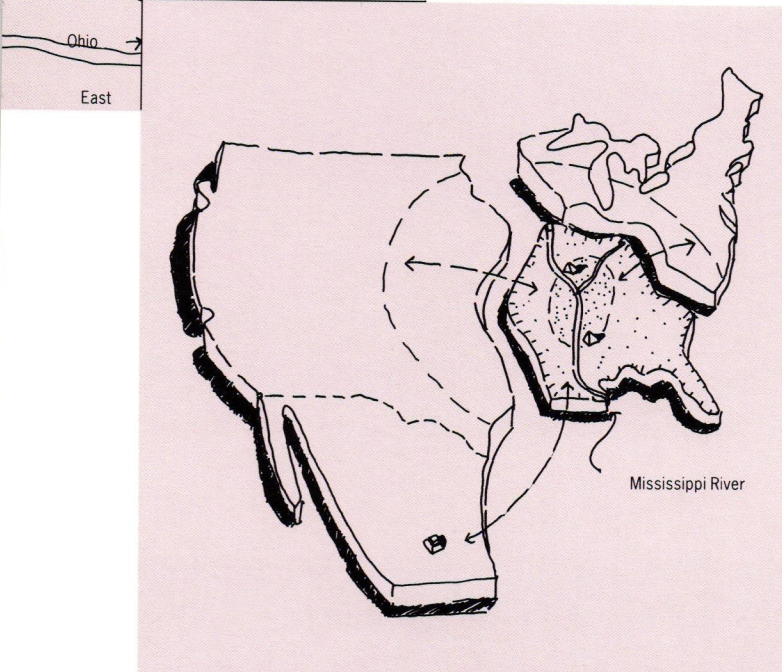
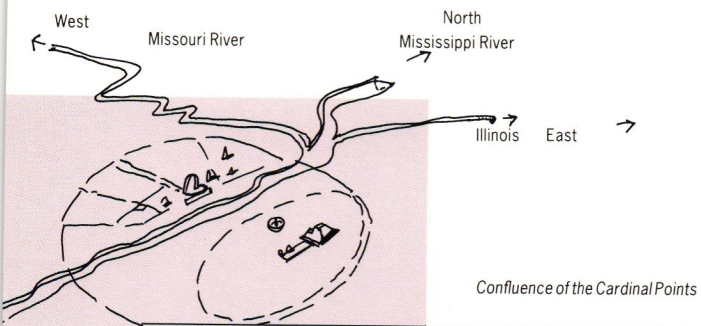
Gathering Ground/Center

Centering defines the spatial realm within which an individual or culture defines its realm of influence and understanding. Centering oneself in the land initiates the building process. The idea of earth, mountain, place, site and center are self-supporting and sustaining spatial concepts whose presence is revealed through architecture and landscapes. Without the proper sense of centeredness and circumference in the terrain, a disjunction would form between land, temple and garden.

— William R. Morrish, *Civilizing Terrain*

The Mississippi Valley was not an empty frontier wilderness absent of civilization when American pioneers began their westward journey. In fact, for 3,700 years the Mississippi River has been a gathering basin, a point of

confluence of culture and people from the eastern coasts, from the western prairies, and central American civilizations. ■ Destinations such as Poverty Point, Louisiana, were inhabited as early as 1700 B.C. Archaeologists believe that in 1000 B.C., Poverty Point was the largest urban formation in North America. In about 100 B.C., people had gathered at the settlement of Cahokia, Illinois, which grew to be a city of 20,000 inhabitants by 1300 A.D. Never mentioned in our urban histories, Cahokia was the largest inhabited community in North America until Philadelphia surpassed it in population in 1800. ■ Located on an abandoned Mississippi channel, near what is now East St. Louis, Illinois, the Cahokia mounds are across the river from St. Louis, Missouri. These two powerful centers, Cahokia and St. Louis, are located midst a gigantic circular interchange, a confluence of river highways that extends to the four cardinal points of the compass. The Ohio, Missouri, Illinois, and Mississippi Rivers converge above and below St. Louis and Cahokia. Geographic place theory attributes St. Louis's importance to its location at this dynamic cross axis. ■ American history has taught us to see the Mississippi River at St. Louis as the gateway to the west. The St. Louis, Gateway Arch, designed by the architect Eero Saarinen as a monument to Thomas Jefferson and western expansion, forms a portal directing our attention axially westward. ■ Twelve miles east of the arch one can sit one hundred feet above the river valley plain upon the highest earthen mound in North America, Monk's Mound, the central terrace mound of the city of Cahokia (700–1300 A.D.). From the top of this mound one can see the arch, a stainless steel line appearing to mark the profile of a colossal mound in the sky above the Mississippi River. Imagine the arch, not only as a new modern portal or gate marking the edge to the west, but as part of a long standing tradition of valley monuments formed to be centrifugal gathering symbols. ■ A kinship in form and ritual between the modern arch and ancient Mississippian mound building offers the realization that the Mississippi River is not only a line to be bridged between east and west but that it is a gathering ground, a middle coast, a destination for people and ideas, a mediating basin between the cultural edges of our country. Imagine that the entire Mississippi River urban landscape is a linear assemblage of regional gathering grounds, like pearls on a necklace held together by the nest of the river corridor—its topography, its tributaries, and its cultural heritage. ■ Like St. Louis, Cahokia once stood on the banks of the Mississippi River. Monk's Mound, like the arch, stood on the river's bank, a civic symbol to residents and travelers. Imagine this earthen platform as part of a constellation of civic river landmarks throughout the valley. ■ Lying about one hundred yards west of Monk's Mound stands a wood henge, a circular stand of forty-eight poles, with a single pole at the center of its circumference. The henge was used by Cahokians to mark the rising of the sun in the east at the fall and spring equinox. The mound appears to be

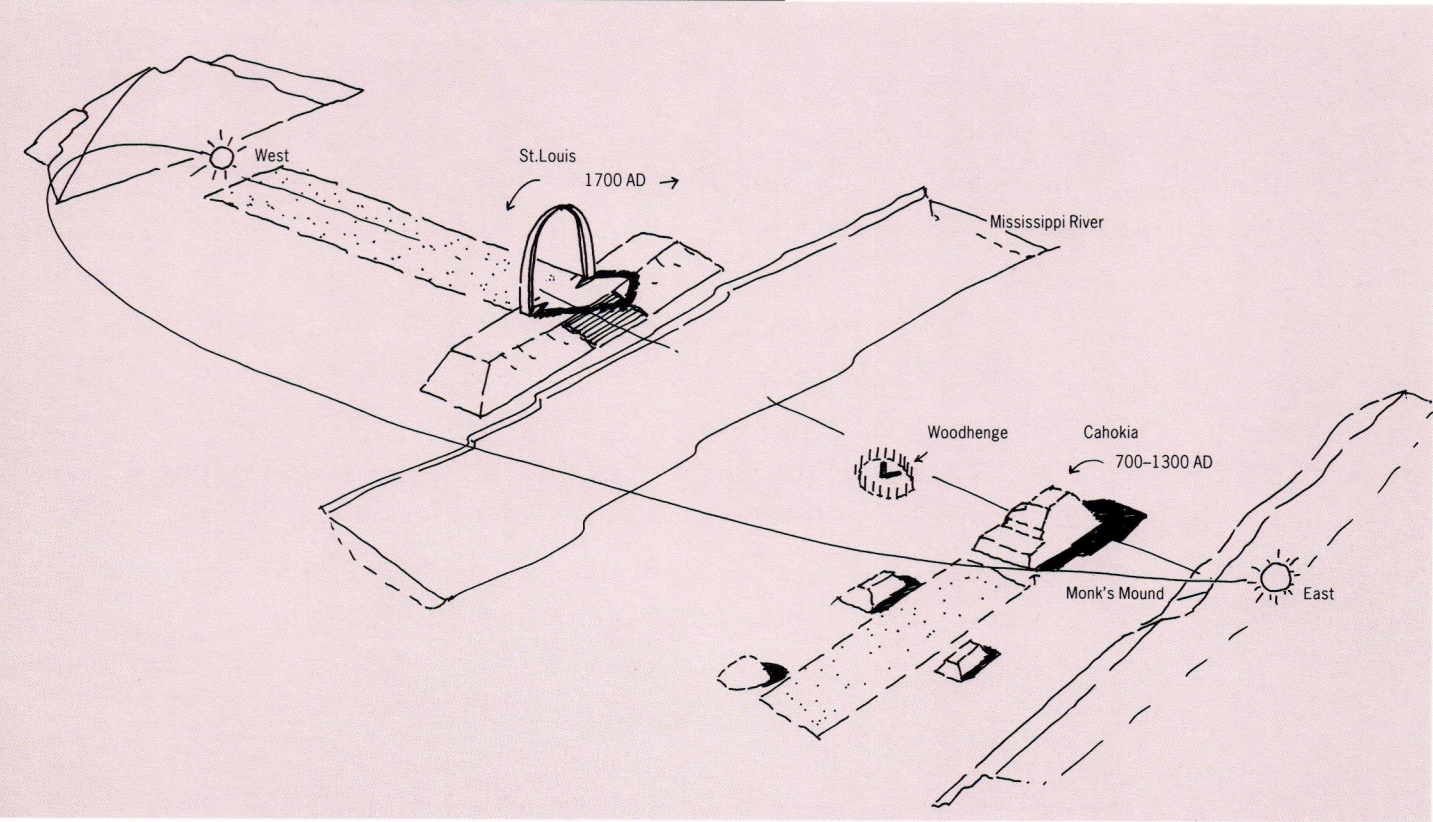


Eero Saarinen, The St. Louis Gateway Arch

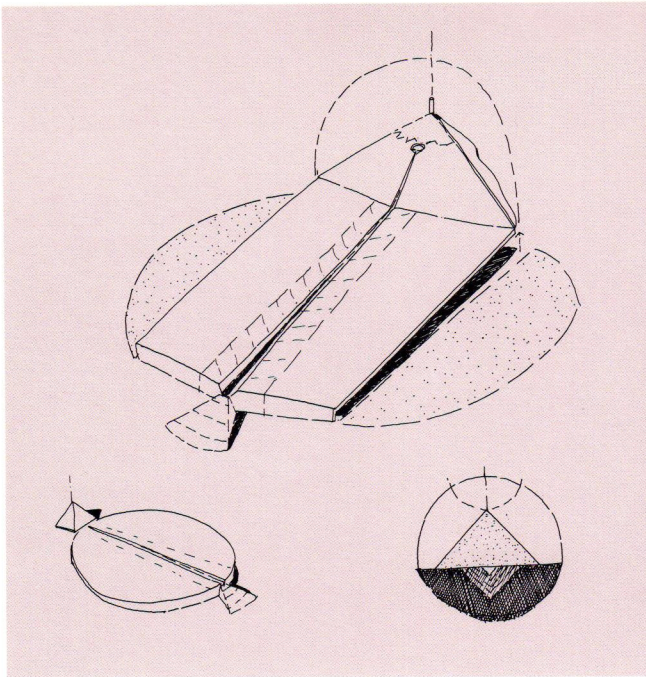


Cahokia, Illinois

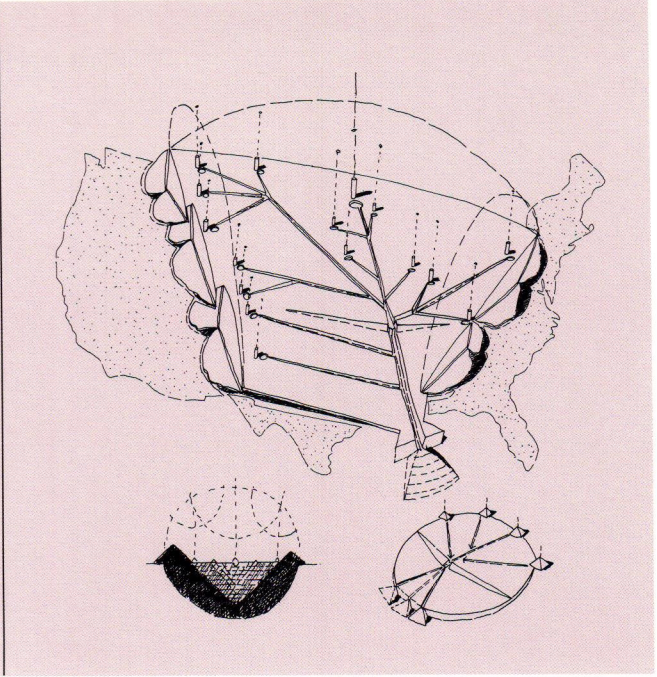
Mississippian "Urban" World



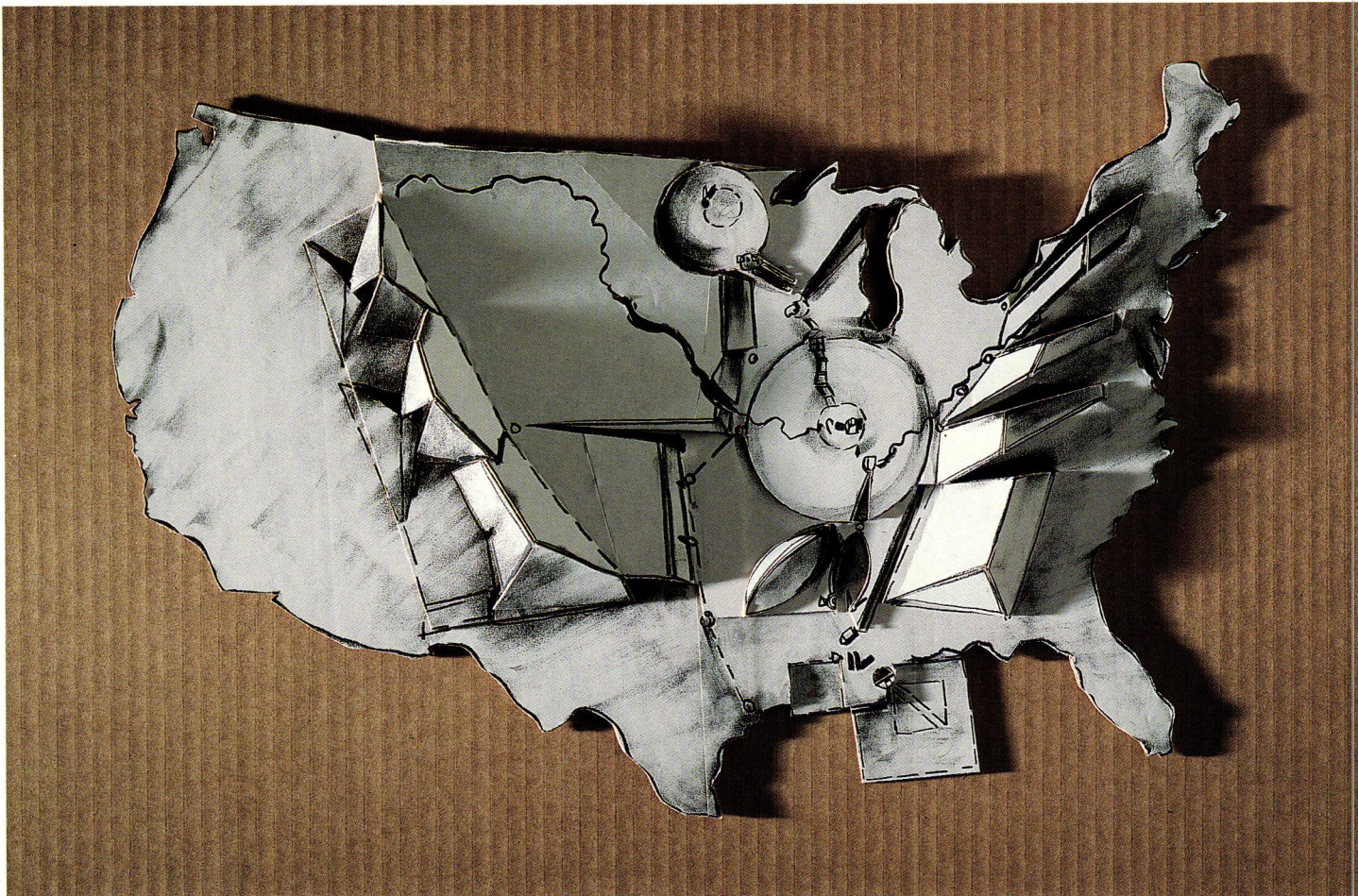
"Meeting Ground"—Arch and Mound Gather the Landscape



Sacred Mountain



Sacred Basin



Fourth Coast Spheres of Influence

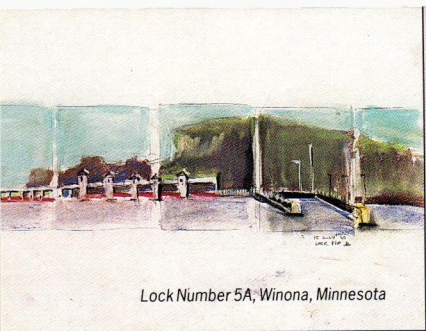
giving birth to the ascending sun. ■ Looking beyond the historical facts of Cahokia imagine that there is a solar relationship between the rising sun as seen from the henge over Monk's Mound, riding the sky high above the Mississippi Valley, descending in the west between the legs of the Arch. The path tells a story. The sun rises in the east over ancient traditions of America and Europe, the rays of the sun shining westward to a new destiny. As the sun sets in the west, the rays of the sun shine eastward, bringing ideas from the west.

Civilizing Terrain

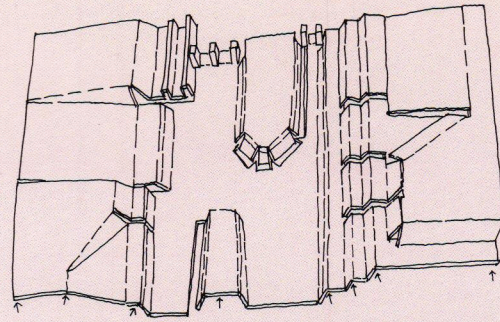
The Mississippi Valley yields to no region in the world. Here, if anywhere, is the real America—the field, the theater, and the basis of the civilization of the Western World. The history of Mississippi Valley is the history of the United States.

— Frederick Jackson Turner, Albert Bushnell Hart

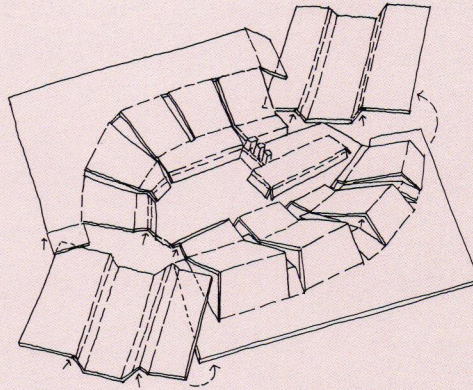
Traditional myth holds that the water source of our urban rivers springs from the deep recesses of the earth and rises forth to the surface through the central power and axis of the sacred mountain. On the surface, the sacred waters flow from springs and meadows down the slopes of the sacred mountain into the civilized plain below. The river marks a linear terrain of inhabitation and urbanization across the plain from the mountain to the seaport. It makes a direct line between the city and the heaven above the sacred mountain. ■ Modern science has offered a different story concerning the origin of our water supplies. Still we cling to the image of the sacred terrain, imagining that the water source of our rivers starts in the pristine landscape, near heaven, at the top of the sacred mountain and flows from this central point. It is a vertical and axial spatial concept that underpins many of our universal notions of city and urban landscape. ■ The Mississippi River source does not lie high in the cradle of a sacred mountain meadow. Rather, the waters of the Mississippi River spring forth from a multiple set of sources located on the edges of three sides of a broad, slightly sloping horizontal valley. The scientifically documented source of the river is Lake Itasca, located in the low undulating hills of northern Minnesota. The Mississippi River flows not from a sacred mountain, but from a different notion of space—the sacred basin. ■ In this spatial notion there is no single axis mundi to provide a vertical line that orders the cosmology. Rather, it is a space of multiple focal points, a non-axial space, a space of multiple origins and destinations of distant points. It is a space of distant horizon



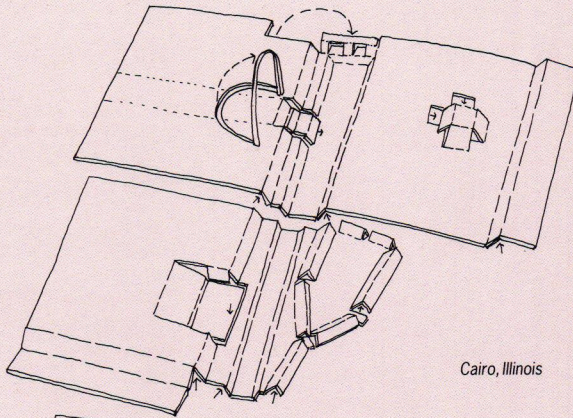
Lock Number 5A, Winona, Minnesota



Minnesota/Wisconsin

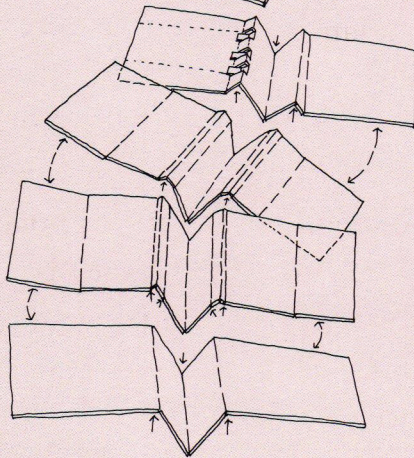


Davenport, Iowa



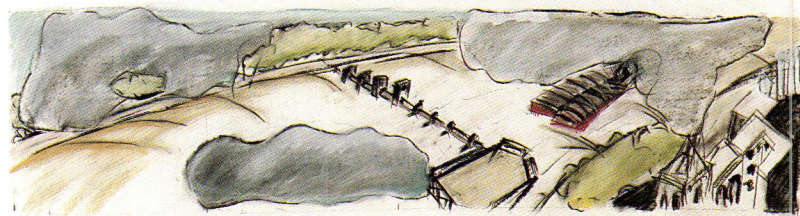
St. Louis, Missouri

Cairo, Illinois



Louisiana

Aerial View—Upper Mississippi



Valley Terrain "Cut and Fold"

and horizontality where a slight change in topography becomes a profound experience. It is a space where void is valued as much as solid mass. The spatial construct is like the section diagram of a valley with flanking enclosing mountains. It is a space where the view is not directly focused toward the object, or sacred mountain on line, but the valued view is multi-framed toward the open void directly ahead.

Valley Terrain

Earth River

The Mississippi River is continually cutting land and redepositing the soil downriver as silt, building up another part of the river topography. For millions of years the river has constructed and destroyed itself as it seeks to complete its primary function of draining and nurturing the land and sea. ■ From the natural levees of Louisiana to the effigy mounds of Prairie du Chien, many cultures have arrived at this open horizontal river plain and sought to represent their notions of space and place through the folding of the land into a proper, level terrain for habitation. The builders of Cahokia spent more time and earth leveling and flattening the land than they did in building the hundreds of mounds in the community. ■ More recently, European and American cultures have inhabited the valley. In their quest to maintain and support themselves through the production of food and cultural exchange, they have continually reshaped the earth along the edge of the river's course into a variety of spaces and symbols. They have reshaped the valley earth into utilitarian infrastructure, civic spaces, urban terraces, ceremonial objects, and institutional symbols. ■ This story has been marked and formed from the liquid earth of the river. The river carves and shapes the dirt and soil into images we call geomorphology or earth. The earth has been used to make bricks, as medicine, and even as paint for the artist's canvas. The color of the river is that of the earth, this is a building river, an urban river that floods, cuts, levels, mounds, and terraces. This is no picturesque stream, but the "Father of Waters," the builder and provider of the earthen foundation for past and future urban landscapes.

Vessels within the Valley

As the river continues in its eternal mission as a vital natural system, its activities as a natural vessel define the fundamental character of place, time, and space. The river is a vessel functioning as an artery, carrying material

from the far reaches of its watershed. It nurtures growth along its banks, erodes the plain into protective valleys for settlement, collecting waste and discharging it into the sea. ■ The river acts not only as a passageway for the flow of material, nutrient, solid waste, and water, but as a container of other vessels traveling within its systems on their own journeys. Each vessel, by its shape, function, and ritual of river passage defines a way in which to read the character of the land of the river valley. ■ Giant ocean freighters travel the lower section of the river, transforming the river into an inland sea of world ports. Along the whole length of the river, blocks of barges are pushed by “tows” up and down the river, carrying raw product to and from terminals. Amid this congestion, commercial vessels, steamboats, speedboats, houseboats, and canoes ply the river waters, reenacting a literary and historical adventure and receiving rejuvenating pleasure from contact and passage within the river’s valley. ■ The activities of these two forms of vessel combine to define the place and space of the river valley within the open middle plain of America. Erosion and river silt deposits and the wakes from river commerce and pleasure crafts have combined and constructed a new experience of an urban landscape.

Engineered Earth: The U.S. Army Corps

We harnessed it, straightened it, regularized it, shackled it.

— Statement from the Corps

There was now a Great Wall of China running up each side of the river, with the difference that while the levees were each about as long as the Great Wall they were in many places higher and in cross section ten times as large.

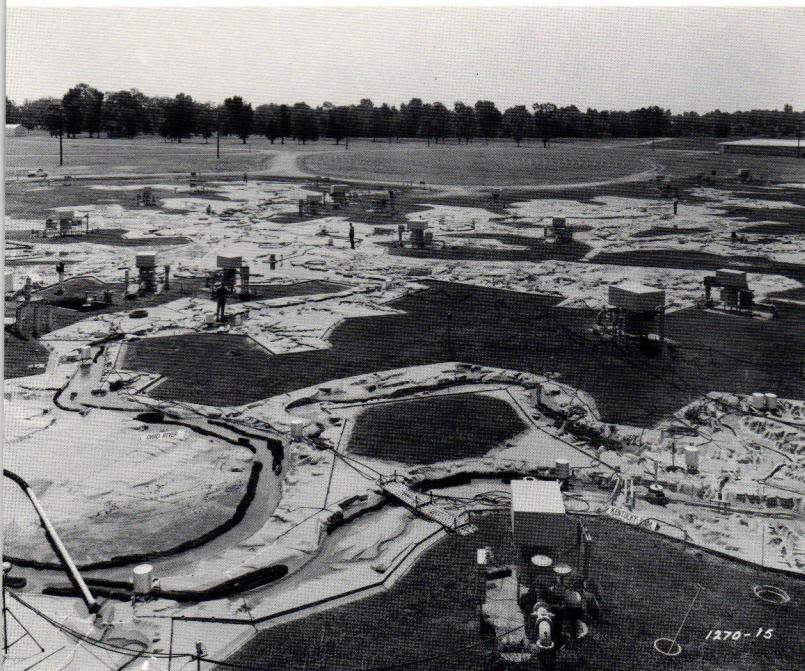
Just why the Army should be involved at all with levee systems, navigation locks, rock jetties, concrete revetments, and the austere realities of deltaic geomorphology is a question that attracts no obvious answer. The Corps is here because it is here.

— John McPhee, *The Control of Nature*

In the community of Clinton, Mississippi, twelve miles west of Jackson, the state capitol, the U.S. Army Corps maintains a scale hydrological model of the Mississippi River. The model seems as overwhelming as the river itself. Even though its scale and size is exaggerated vertically and horizontally, the river geomorphology has been molded into square



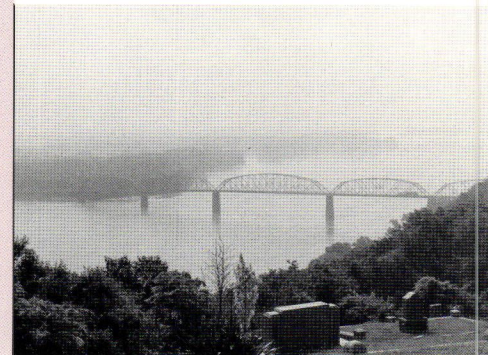
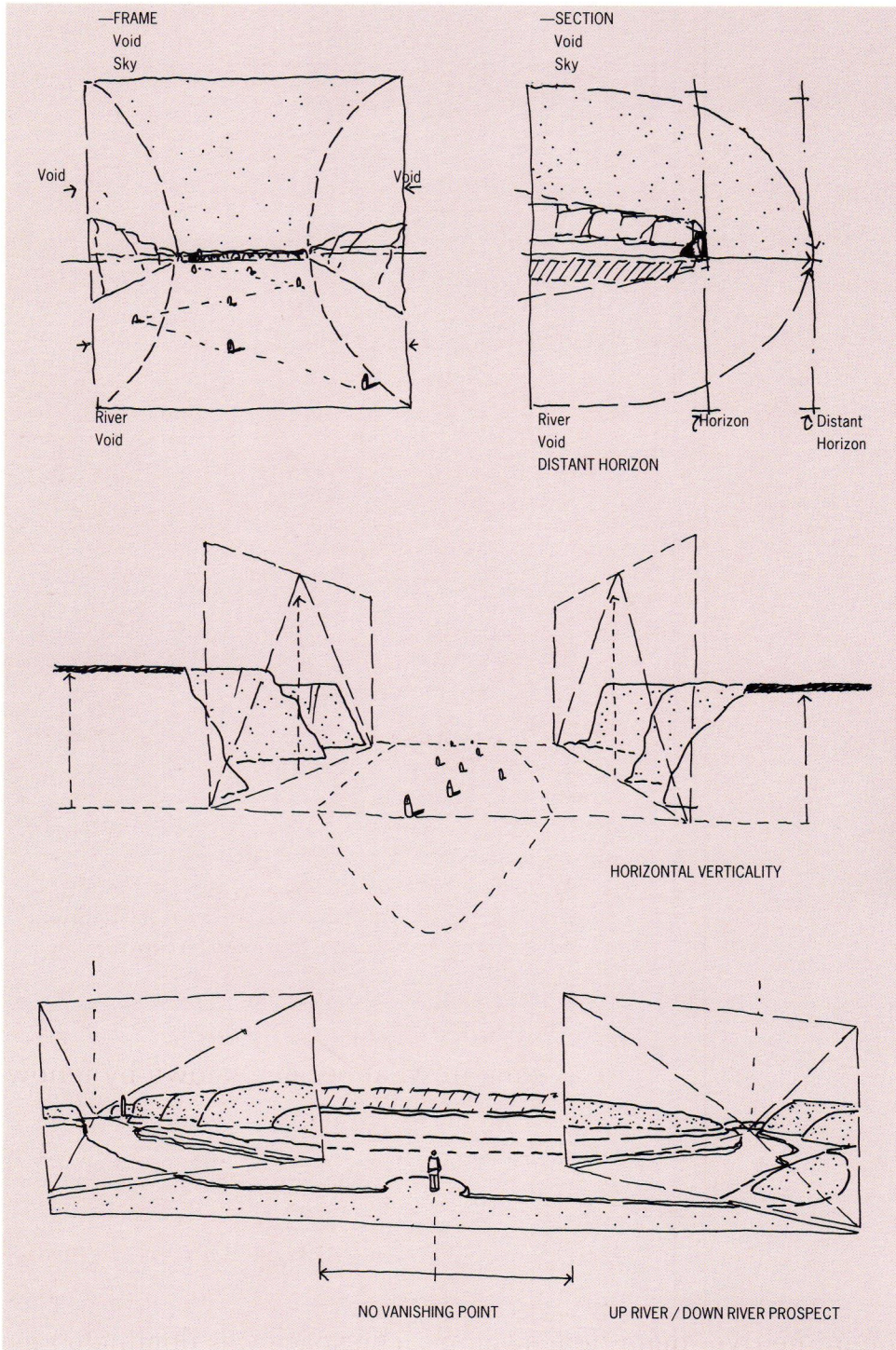
Old River Control Structure, Louisiana



Hydrological Model of the Mississippi River, Clinton, Mississippi



Hydrological Model of the Mississippi River, Clinton, Mississippi



Louisiana, Missouri

concrete surfaces stretching over two hundred acres of land. ■ The model is more than a testing laboratory, it is a symbol of the American quest to tame the natural forces and to shape and mold the topographic features of the Mississippi River from its original wild natural state into a new urban typology. This new form is a multibillion dollar urban infrastructure system of several thousand miles of levees, numerous spillways, twenty-seven locks and dams maintaining a depth of 9–12 feet, hundreds of marinas, and millions of acres of wildlife areas that combine to create a protective valley for urban settlements. The sum total seeks to engineer a safe and efficient passageway for the vessels of commerce in the midst of the most powerful natural system in America. ■ Infrastructure is the contact point between urbanism and nature. It is the point of energy transference, from the natural system to the urban artifice. The Mississippi River has become as much a mid-continent urban artifact as Central Park is artifact to the city of New York. The Mississippi River is a central urban corridor of open space, offering to the inhabitants who occupy the blocks of open land surrounding it a sense of urban grandeur, connection to an interconnecting public amenity, and access to open space offering a rejuvenating contact with nature. ■ Though the river is artificial from its source to its mouth, the natural forces that created the river still exist, they continue to challenge the urban image of the river. Though contained for the moment, it is still wild and dangerous, one of the last remnants of the American wilderness.

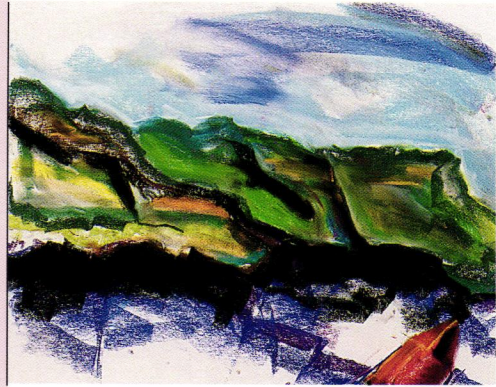
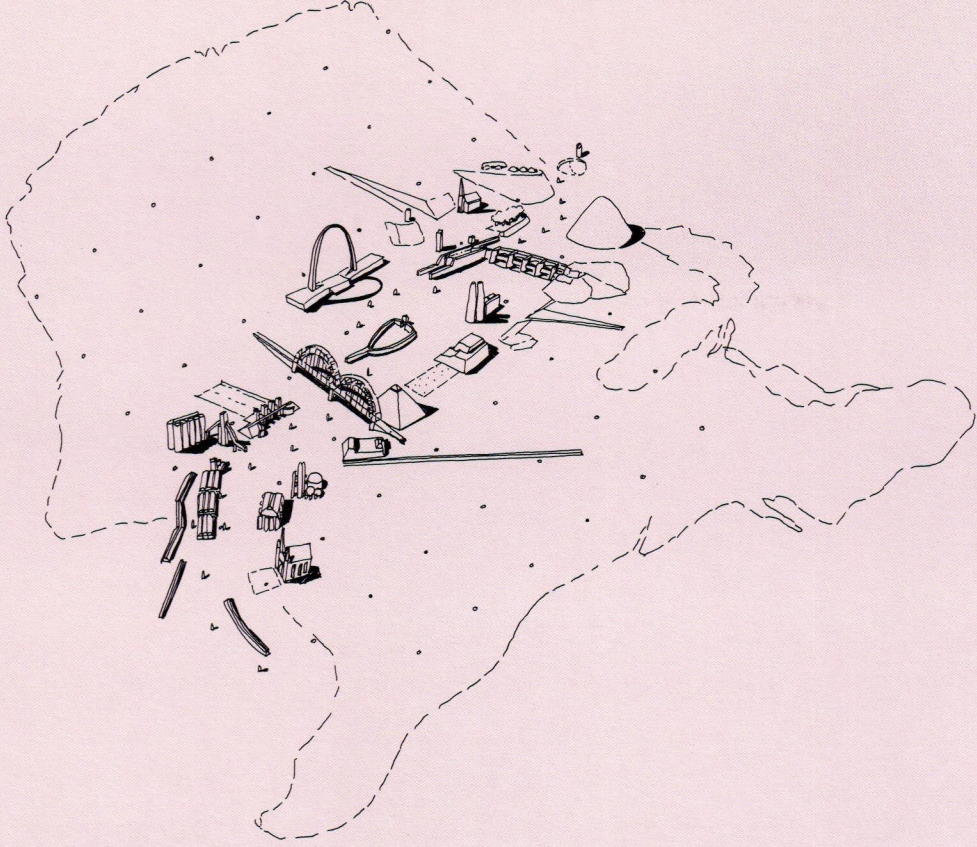
Points of View

Think of the past as space expanding infinitely beyond our vision.... Then we choose a prospect. The higher it is, the wider and hazier our view. Now we map what we see, marking some features, ignoring others, altering an unknown territory...into a finite collection of landmarks made meaningful through their connections. History is not the past, but a map of the past drawn from a particular point of view to be useful to the modern traveler.

— Henry Glassie

Traveling in what became known by fellow explorers as “river time and space” required a particular way in which to see the proper scale and size of objects and spaces. Our perceptual skills had to be adjusted to read distant horizon, panorama, and verticality. We discovered four interesting phenomena that altered our way of seeing and enhanced our ability to read the urban landscape. ■ *Distant Horizon*: On the first day of our expedition we traveled across the open wetlands of the Louisiana coastline in the river delta tidal swamps. The space was dominated by

two surfaces, the expanse of water reflecting in its surface the other dominant surface, the sky. Separating the two watery atmospheric bodies was the thin line of a narrow strip of grassy wetlands. The striking aspect of this view was that there appeared to be no foreground nor background elements for a frame of reference, merely a middle ground captured like a desert mirage suspended mid-frame. ■ We discovered this same phenomenon at several points along our trip. We adjusted our perception from what we originally viewed as a void or absence of solid, to one of open space which had a quality of mass. We began to see the possibility that open space was not a void or absence of substance but rather, given the scale and size of this openness, it contained weight, substance, and mass. The river often became a liquid earth, the sky a ceiling whose curve arched beyond the boundary of the horizon. ■ *Captured Panorama, Up and Down River*: Standing at a prospect overlook point on a bluff two hundred feet above the river below, one has a 180-degree panoramic view of the landscape. Looking straight out to the land on the other side of the river, the view is flat, lacking in detail, neutral without a particular point of perspective. The scale and vastness of the panorama consumes detail. Turning 30 degrees and looking either up or down river, the land becomes detailed and topographic and the shimmering surface of the river channel is the primary focus of the view. ■ Along the length of the trip, the primary view was to either side of the line of movement. At this angle the elements and details contained in the panorama were captured and the distance between these elements spread out across the landscape, foreshortened and combined into a rich and dense urban landscape. This was rarely broken unless the vast panorama of the horizon was captured by a frame such as the St. Louis Arch. ■ *Horizontal Verticality*: River time and space altered our sense of vertical dimension. Verticality is a critical dimension in the river urban landscape. In many cases just a few feet mark the difference between urbanism and swamp. For instance, the city of New Orleans is located on the natural levee of the Mississippi River. Before the construction of the man-made levee system, the city at its highest point was only 8 feet above the river. In other parts of the city there are areas only 2.5 feet above sea level, and they are called ridges (as in the Esplanade Ridge). Along the full length of the river, towns record the height of past floods with markings on buildings and bridges. History is defined by the height of the river and towns are located by the dimension of small mounds or outcroppings. ■ Traveling in the Upper Mississippi River corridor above St. Louis, the plain of the midwestern prairie rises substantially above the level of the river. At one point near Prairie du Chien, Wisconsin, the river bluffs reach a height of over 500 feet. This place is called Pike's Peak, an odd name to describe the edge of prairie before it falls into the river valley. It is a testimony to the power of imagination and the desire for vertical prospect. (As a postscript,



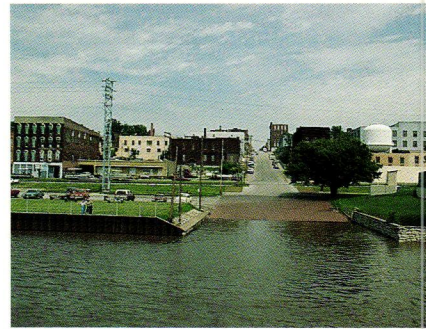
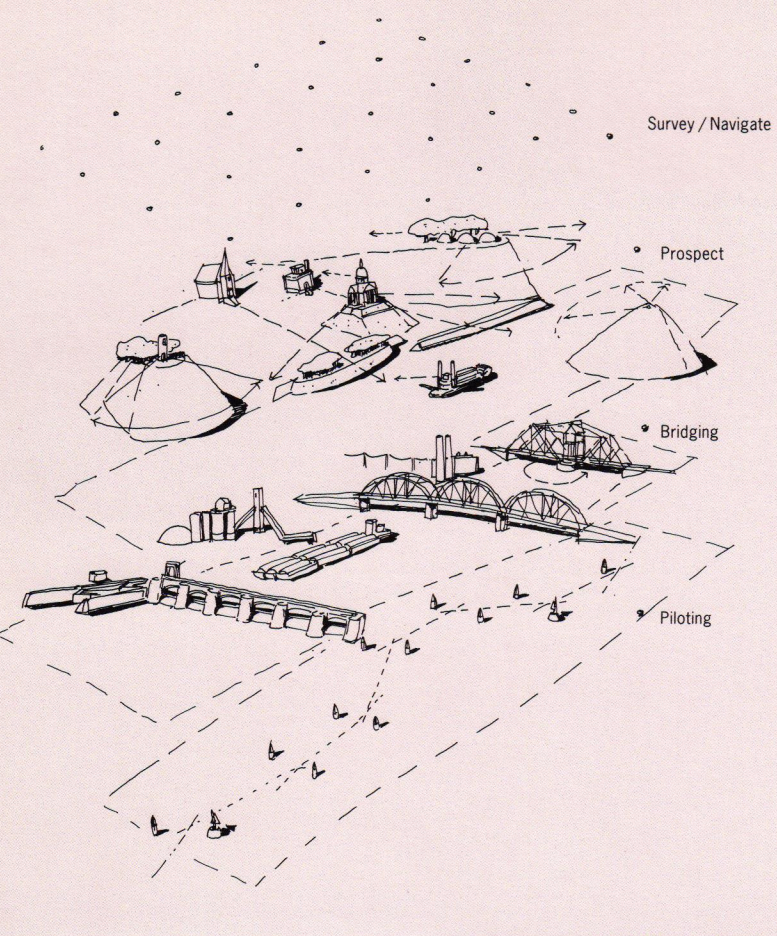
Lake Pepin, Minnesota

Democratic Points



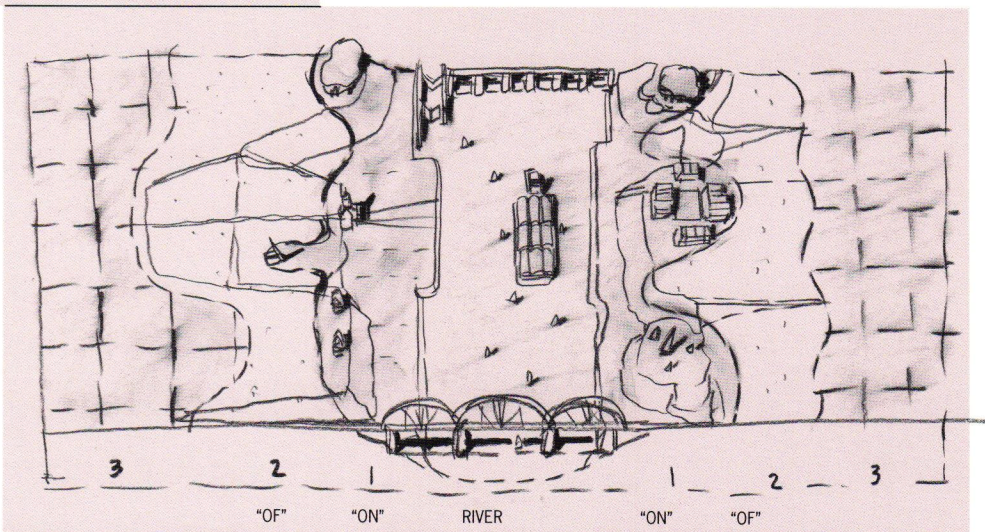
Pike's Peak, Iowa

Survey / Navigate

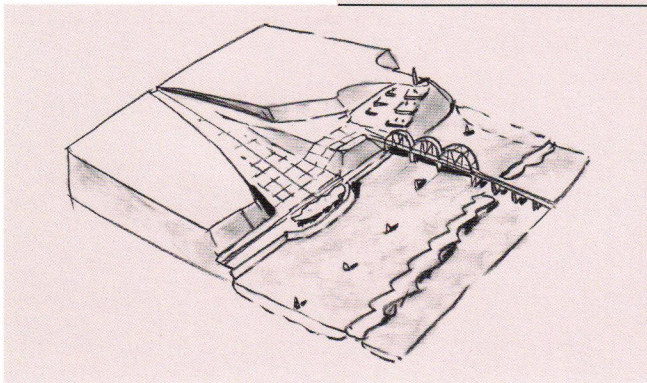


Quincy, Illinois

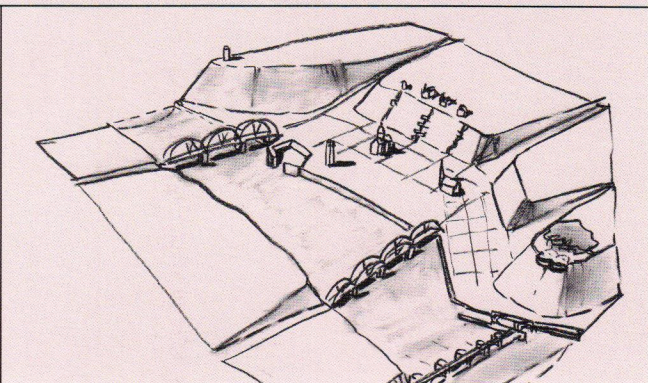
Points, Lines, and Surfaces



Of the River and On the River



Louisiana, Missouri



Dubuque, Iowa

Mr. Pike was, in his journey west, to discover a much taller peak in Colorado, which he imaginatively also named Pike's Peak.) ■ *Points and Prospect*: We found that making passage across an open horizontal landscape or up a river whose course, width, and depth constantly change had surprising parallels. Both require a skillful pilot to navigate from a proper prospect with recognizable reference points from which a mental map of the landscape ahead can be constructed and a course plotted. ■ On the river, brightly painted red buoys, called "nuns," mark the center of the channel, the right angle of the tilt registering the speed of the current. Bridges, locks, and dams parcel or divide the river into rooms, which are called "pools" by the Corps. The cylindrical silos of grain elevators, the domes of natural gas storage tanks, the chromium shafts of refineries, the sites of river barge terminals, all mark points of transfer from the river space to the urban place. ■ Reference points and prospects not only define passageway and movement direction but they establish basic spatial dimensions and definitions of the place called the Mississippi and its river towns. ■ Perched 150 feet above the river's surface on a bench in a river park overlook, the river reveals itself as a scenic and recreational landscape. It is from this vantage that the river is no longer an industrial space but a landscape.

Of the River and On the River

River towns have a dual function: to serve as front door or living room to the activities and functions of both the river and the adjacent agricultural and urban settlements of the hinterland. The towns engage the river in two ways that we characterize as *of the river* and *on the river*. ■ Objects, institutions, and spaces that have direct contact or direct visual access either down a street or from an overlook to the main channel of the Mississippi River are classed as on the river. Objects, institutions and spaces that are located in the space where the edge of the prairie or inland plain overlaps with the topography of the Mississippi River Corridor are classified as of the river. ■ The applications of these two principles to the wide variety of river corridor terrains coupled with the objects, institutions, and spaces of each community have resulted in a rich matrix of urban river landscapes. There are towns that step up from the river, others step down, others spread alongside, some push into the river as if they were giant public porches extending into the front lawn, and some surround the river and attempt to capture it. ■ River towns start from a similar kit of urban building blocks: a gridded city plan and blocks, city parks, town squares, the county courthouse, churches, mansions, grain silos, bridges, Main Streets, and a standard array of Front Streets, Elm Streets, and numbered streets. In plan they look much the same; in experience each

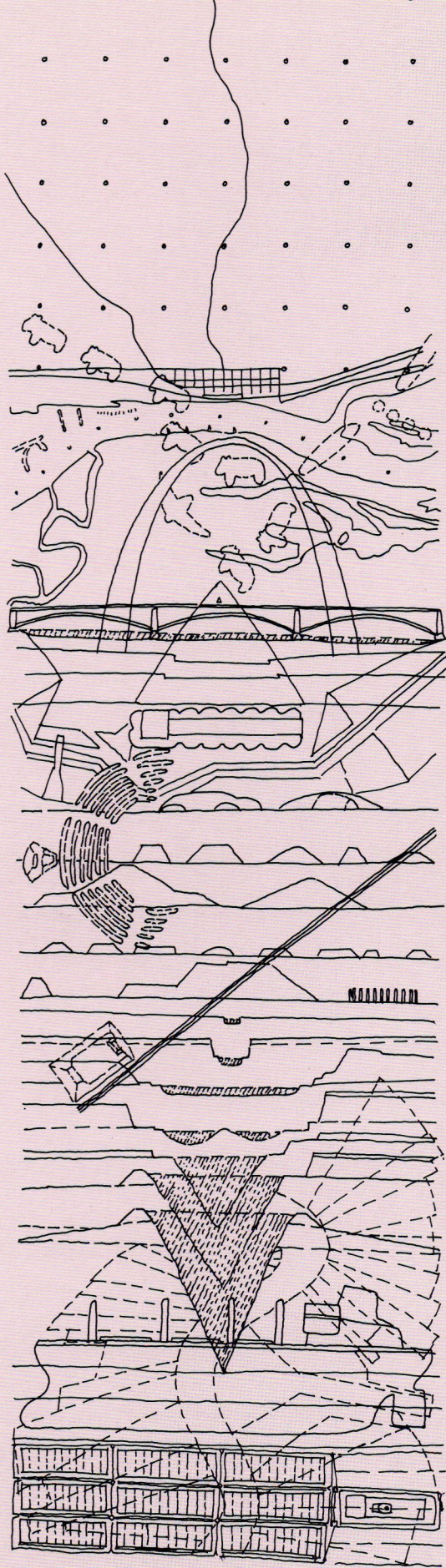
is different, each has taken the set of parts and arranged them to address the two personalities of river towns. ■ In every river town, the plan view shows the town's buildings organized into gridded blocks. Many of the gridded blocks are oriented to the river, others with the grid lines of the national survey. On the ground and within the river corridor, the points that appear on the horizon are the result of the collision of the plan grid organization of buildings and gardens and the topography of the river valley. ■ What appears in view are church steeples, county courthouse domes, industrial smokestacks and cemetery obelisks placed on elevated promontories or the slope of a hill, river overlook parks carved from the outcroppings of river bluffs, broad verandas wrapping around houses perched on a bluff. All of these elements are combined differently from town to town. They describe the basic organization, cultural content, spatial order of the town and how it engages the river on one side and the adjacent hinterland on the other. ■ The result is a distinct civic topography of elements that define the Fourth Coast cities' civic terrain. Topography, parcelization, land use, open space, and architecture have been used to establish a relationship to the surrounding world and to establish an internal, ordered world within the boundaries of civic terrain.

Cutting Across the American Grain

In these studies I have sought to re-name the things seen, now lost in a chaos of borrowed titles, many of them inappropriate, under which the true character lies hid. In letters, in journals, reports of happenings, I have recognized new contours suggested by old words so that new names were constituted...it has been my wish to draw from every source one thing, the strange phosphorous of the life, nameless under an old misappellation.

— William Carlos Williams

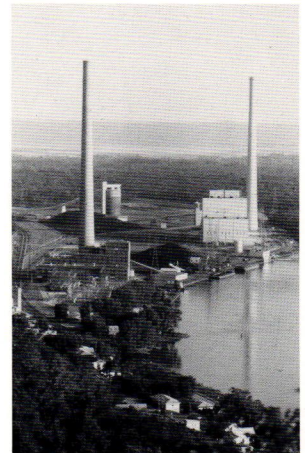
We traveled up the length of the Mississippi River. We crossed an ocean of grain fields, rows of cotton and sugar cane, forests of refineries, and climbed to the top of grain terminals whose conveyor arms stretched from storage silos across the river levee to Russian ships loading their holds with grain from the heartland of America. ■ Clearly the river is the backbone of a hardworking national agricultural, industrial infrastructure. But on first glance there seems to be only a trace of urbanism, appearing as outposts or centers standing midst the fields of rural landscape. Passage up the river—learning new history, seeing from a new point of view, constructing questions in discussion—cut through this rural mist, revealing in the horizon a richly



River Section



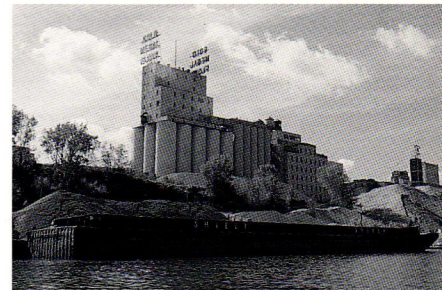
Quincy, Illinois



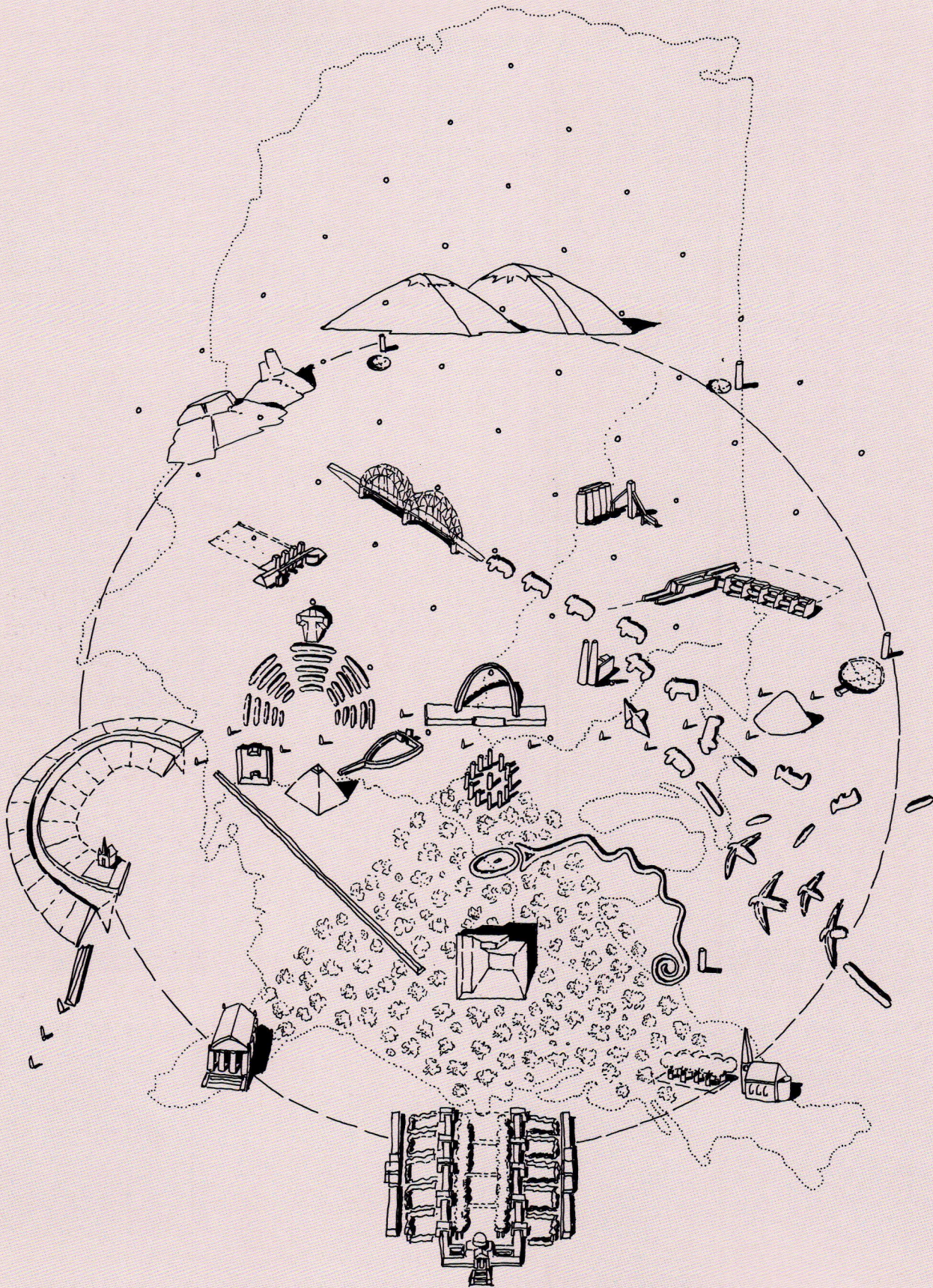
Alma, Wisconsin



Alma, Wisconsin



Minneapolis, Minnesota



diverse urban landscape. In the grain of this landscape is a substrata of American cities, towns, and places built upon a uniquely original interpretation of urban time, space, and place. ■ It is a definition of urban in which expressions of urbanity and place derive from the ways civic bodies value the wealth of the land and transform known urban typologies within their definition of “nature.” The building block of the public domain does not reside in the design of the “temple” and the “block” alone. It relies upon the way the land is formed and the temple and block are placed to extend the civic qualities from the lay of the land. In this manner the dome of the county courthouse is seen in tandem with the rounded edge of the river bluff park in the distance. A pool of river water held by the arching vaults of a lock and dam in front of the town’s river mainstreet becomes a grand civic room, piazza, or zocalo. ■ A lesson to be learned from all of these is the effort and vision that cultures and individuals have endured in order to marshal local resources together with their utopian dreams to create a proper geomorphic foundation for their buildings, gardens, and cities. They didn’t accept parcels out of hand. Rather they constructed or revealed sites to establish a grounded framework for the development of a specific urban place. ■ Cutting through the American grain has presented a set of new observations, a revision of American urban history, rendering for us a new map from which to imagine and build. The new map reorients our view of the world. The new point of view frames an image of experiments and transformations within the evolution of the continent’s development. ■ The Mississippi River is the center line between the roots and basis of our colonial heritage. The rediscovery of the ancient cultural traditions of Native Americans moves upward and skyward to the dreams and aspirations of our nation and the myth of the west. It is a view of an urban landscape with two basic dimensions of scale and size. One, the wilderness forest and the civic clearing. The other, the American desert, the open vast horizon, the hill, the plain, and the isolated tree. Two definitions of space, one where urban enclosure is defined by architecture, the other where enclosure is defined by urban landscape. ■ Like explorers before us we were drawn to the Mississippi Valley to discover the lost cities of legend—places filled with a wealth of riches and people of intellect and insight, to provide answers to our many questions about the nature of this new strange land. In many ways we discovered the lost city that the Spanish conquistadors so desperately sought. We discovered foundations for the other American city, the city of the Fourth Coast.

Postscript

For many Americans the idea of traveling the Mississippi River has a romantic appeal that is irresistible. It invokes images of a simpler America, the idea of “frontier,” of freedom, of adventure, of living by your wits, of what it means to be an American. In a sense it implies a voyage of self-discovery. On the other hand, for those of us who have a natural skepticism about our American myths, it suggests an escape into nostalgia and a yearning for things that are no longer relevant to the problems we currently face.

When William Morrish and Catherine Brown suggested an expedition to the “Fourth Coast” as a way to investigate the roots of American urbanism, I was torn between my natural curiosity and instinct to explore and those of skepticism as to whether such a trip could be a significant learning experience. Fortunately, this expedition avoided the pitfalls of nostalgia and captured the opportunities of genuine discovery. In hindsight, the benefits of such a trip now seem obvious, but at the time the risks seemed real. The insights about American urbanism that are manifest in this publication are a remarkable tribute to the explorers’ vision, to their willingness to take risks, to see things anew, and to find the underlying principles and lessons in both the ordinary and the strange. The Mississippi River, its physical presence and historical development, as seen in this issue of *Design Quarterly* has turned out to be a cultural artifact of fascinating complexity, a virtual textbook on American urbanism.

The expedition format — the sequential experience of urban landscapes combined with drawing, analysis, seminars, and discussion — had a cumulative learning effect of great depth. Visiting and analyzing forty American towns, one after the other within six weeks, created an intensity of focus on urban design that is rarely achieved. Issues seen thirty or forty times, layered one on top of the other in slightly different ways, forge new associations and an understanding of relationships that might otherwise not be discovered in a lifetime. Toward the end of the expedition when students were analyzing one aspect of the most recently visited urban landscape, they immediately made references to dozens of similar phenomena experienced earlier on the trip. Indeed, the expedition revealed an American urbanism of unusual subtlety and depth — a description and comparative analysis of the elements and ideas that constitute its essence and an understanding of their historical and regional morphologies.

What might have been simply an exercise in nostalgia was instead a remarkable voyage of discovery. It has laid the foundation and established the research agenda for the Design Center for American Urban Landscape.

Harrison Fraker

Catherine R. Brown and William R. Morrish established CITYWEST in 1980, an urban design firm specializing in the cultural and aesthetic development of American cities. Now at the Design Center for American Urban Landscape at the University of Minnesota, Brown and Morrish are coordinating a team of scholars, practitioners, and students to establish the framework and content for future practice and studies in American urban design.

Ms. Brown, Coordinator of Special Projects at the Center, and an urban designer, received a Bachelor of Landscape Architecture degree from Louisiana State University and a Masters of Landscape Architecture and Urban Design degree from Harvard University Graduate School of Design.

Mr. Morrish, Director of the Center and Associate Professor of Architecture, and an architect and urban designer, received a Bachelor of Architecture degree from the University of California, Berkeley and a Masters of Architecture and Urban Design from Harvard University Graduate School of Design. He is the recipient of a National Endowment for the Arts Fellowship for his publication *Civilizing Terrains*, an annotated essay illustrating the impact of geomorphology upon urban space and settlement.

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Substantial planning assistance was provided by staff members of the U.S. Army Corps of Engineers, Mississippi River Parkway Commission, U.S. Coast Guard, Minnesota Department of Natural Resources, National Park Service, and by faculty of Tulane, Louisiana State, Washington, and Cornell Universities. Over fifty individuals from across the country provided advice and information on subjects ranging from logistics to course development. Also part of the planning process was Captain William Powell, Padelford Packet Boat Company, who chartered the Viking Explorer and piloted the boat.

Every community visited mailed information and materials. Of particular note are Louisiana, Missouri; Quincy, Illinois; Davenport, Iowa; St. Louis, Missouri; Red Wing, Minnesota and Alma, Wisconsin, who planned special events, provided volunteer tour guides or scheduled presentations by mayors and/or city planners.

Substantial in-kind support was offered by various University of Minnesota departments. Research, planning, and teaching support was received from the Center for Urban and Regional Affairs and the Departments of Geography, Studio Arts, Architecture, and Landscape Architecture. University Relations coordinated news releases to national, regional, and local news media. The College of Architecture and Landscape Architecture (CALA) provided uncounted hours of administrative support, arranged for a "Welcome Home" party and other special events related to the expedition, and made available the architecture building courtyard for the exhibition of student work.

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