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## Places

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The Formation of a Mississippi River Urban Landscape Morphology -- Louisiana, MO; Quincy, IL; Burlington, IA; Dubuque, IA [Infrastructure as Landscape, Landscape as Infrastructure]

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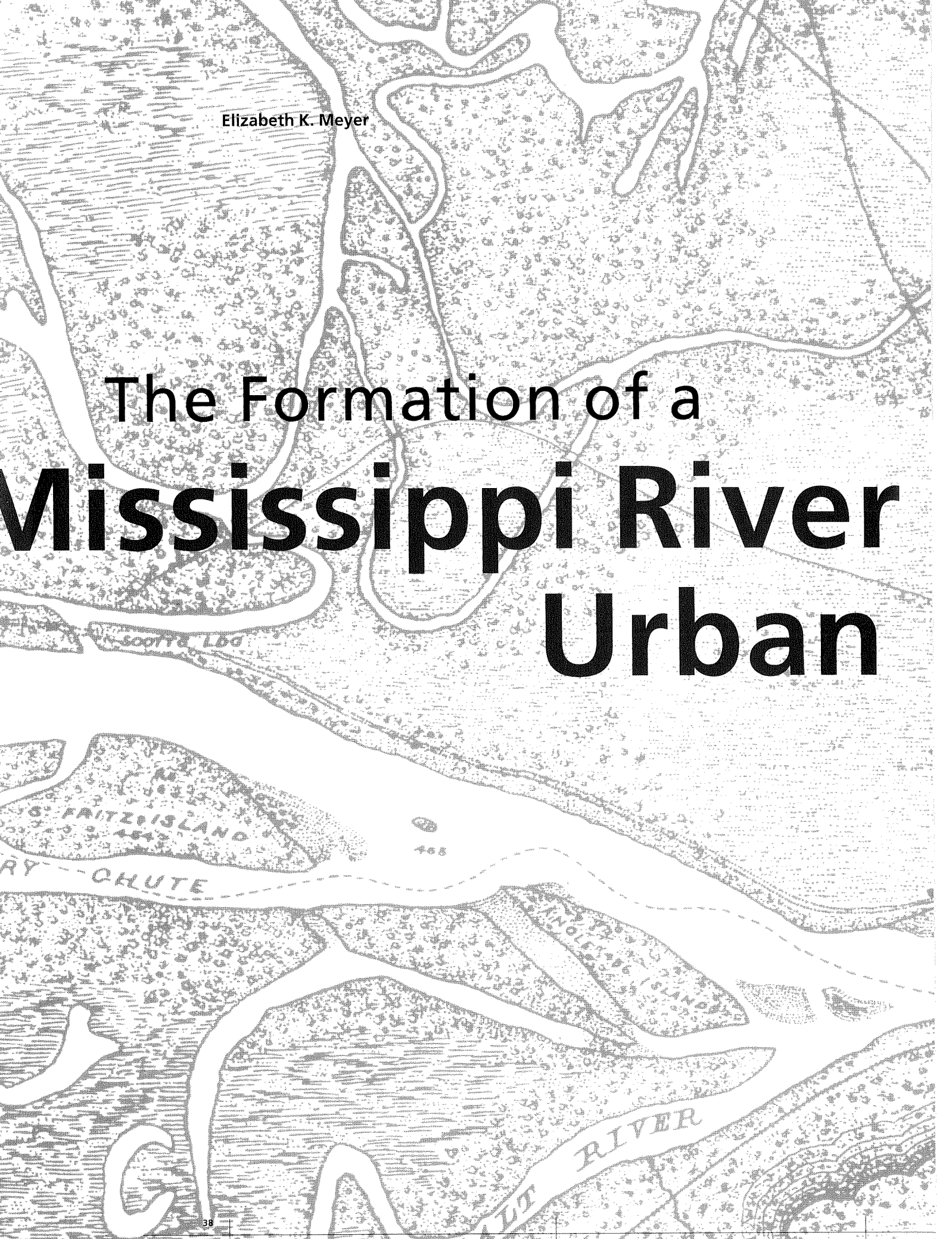
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# The Formation of a Mississippi River Urban





# Landscape

## Morphology

Map of Mississippi River near Louisiana, Mo., prepared by the U.S. Army Corps of Engineers, 1887-88. From the series, H. Bosse and A. J. Stibbott, "Map of the Mississippi River from the Falls of St. Anthony to the Junction of the Illinois River." Courtesy John R. Borchert Map Library, University of Minnesota.

LOUISIANA

Topology. “a topographic study  
of a particular place;  
specifically, the history of a region  
as indicated by its topography”

Topography.  
“the configuration of the surface...  
the lay of the land”

Morphology.  
“the science of structure or form;  
in geology, the external structure of rocks  
in relation to the development  
of erosional forms  
or topographic features”

How do we discover the landscape as we travel up a river? Clearly, the experience is different from that of reading about landscapes in a book, or viewing places from a moving automobile, or surveying places from an airplane. Traveling with some two dozen students of American urbanism in a boat moving at four to seven m.p.h. up the Mississippi River intensifies my encounters with the towns along it and magnifies the analytical lens through which I observe these landscapes.<sup>1</sup>

This new perspective emanates, in part, from an uneasy sense of spatial and temporal displacement. We are, in effect, occupying a boundary between Missouri and Iowa to the west and Illinois to the east. From an outsider's perspective — gleaned from the study of large-scale national maps — this line is an edge between, not an occupiable space. But now we find ourselves moving along within this line. We are guided by different maps, the U.S. Army Corps of Engineers Mississippi River Navigation Maps, which not only give the river a width but also note its depth, locate its nine-foot-deep and 400-foot-wide navigation channel, calibrate its length in distance from the Ohio River and mark the towns along its banks.



View from the captain's chair towards the bow of the *Viking Explorer* during the Mississippi River expedition in which the author participated.



# Louisiana, Missouri

River mile 282 River elevation + 450'

Louisiana occupies the Noix Creek valley, which runs perpendicular to the river and between golden hills that rise up 400 feet. The southern hills are quarried in spots and densely forested elsewhere. The northern bluff is terraced with burial plots edged with limestone and sandstone walls and densely peopled with tombs.

Louisiana's grid of 300-by-300-foot blocks extends west from a river esplanade toward another topographic rise. At that rise, the grid deflects; oriented at first to the Mississippi, now it orients to the narrow creek valley. The valley defines Louisiana's western entrance, where the historic Stark Brothers' nursery headquarters acts as a gateway to the town.

What distinguishes Louisiana is the overlay of the speculative grid and the topographic and hydrologic features. The town's landscapes are organized sec-

tionally and topographically, not in plan. Esplanade, park and cemetery mark edges between river and land, each landscape occupying a different elevation and assigned a different role in the town's structure and social life.

The esplanade, a narrow strip of asphalt, is defined by a long, low limestone wall that lifts the surface above the river. A narrow opening marks the water-gate to the city. The esplanade's west edge is lined with mature trees. Underneath their shade and between their thick trunks, a row of picnic tables faces the river. This narrow, unpretentious band of occupation—wall, gate, promenade, prospect and adjoining parking lot—is a civic space. It gathers the townfolk together to stroll and to gaze, in close proximity to their river, at the city gate.

Henderson Park is a river overlook. From a play-



ground and parking lot, one looks through raspberry-pink and white hollyhocks across and down the river. A tow spewing black smoke guides four barges towards a gap in a low railroad bridge created by a pivoting truss. To the south, where the smoky blue-gray river meets the horizon, sky and water merge into an indistinguishable haze. While the park is as close to the riverbank as the esplanade, it is perched well above, thus distancing itself vertically from the river. This overlook park offers a sense of detachment while maintaining prospect over the river's abundance.

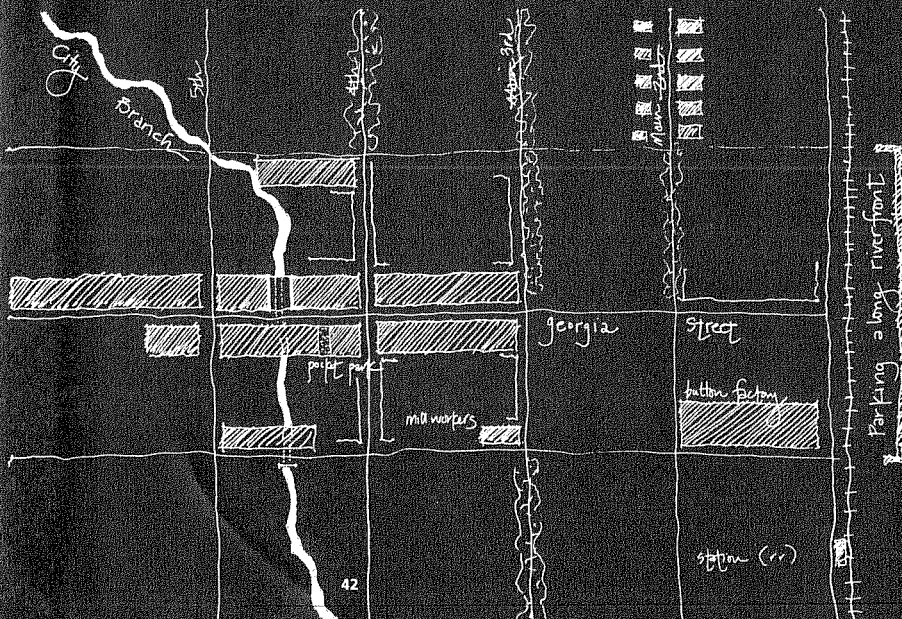
The cemetery, the town's highest public landscape, overlooks both town and river. In Louisiana, the deceased occupy privileged ground high above the river's fury and the valley's heat.

Louisiana's landscape deviations from its grid are the result of hydrological processes and glacial depositional layering. These deviations trace the Noix Creek tributaries through the town, materializing that system in specific urban projects. Stone wall revetments expose channeled, sunken creeks mid-block where one expects alleys, gardens and basements. City streets cross over metal bridges, not culverts, when the stream and grid intersect.

This overlay of a generalized grid upon a particular geography is marked, not concealed. The terrain transformed the grid into a series of seemingly discrete, but integrally related, urban landscape projects. They inscribe Louisiana's two orders, grid and terrain, into a unique urban form.

Below: The topographic structure of Louisiana—the enfolding hills, river parks, creek and grid.

Right: Intersection of the generalized grid and particular geography. The creek runs as an open channel through the block and under the storefront.



A sense of altered time accompanies this phenomenon of spatial displacement. We are moving upstream against the passage of time, against the flow of sediment-saturated floodwaters. Our travel speed is only twice that of walking, but even this pace is tempered by daily passage through locks, where we are slowed by both the process of raising the water level and the etiquette of river boat travel.

I begin to notice continuities and relationships along this line where I saw only differences before. Towns that would normally be experienced along the upland edge, the twentieth-century strip or bypass, are now seen from their original front, the river. Entering through these old city water gates allows me to discover the town's facade or elevation before its plan and to experience the riverfront as a threshold, not a back door.

This reading of the town encourages speculation about the past, about the relationship between town and terrain, and about the present — how our normative means of analyzing the landscape can cloud or limit the proposals we make and the conclusions we reach.

### **Topography, Topology and Morphology**

As we move within the edge between two land masses, the Mississippi River reasserts itself as the center of a vast basin, the original highway between the Rockies and the Appalachian Mountains. The river re-emerges as a vital artery supporting the towns scattered along its banks.

Each town's location, access points and natural boundaries are topographically dependent upon the river valleys, terraces and bluffs. For instance, towns on the western banks were sited for ease of crossing by ferry or train from the east. The width of a particular stream valley and the height of its bluffs limit a town's size, the direction of expansion and the degree of integration between various precincts or neighborhoods.

Despite these local variations, each town's form is topologically consistent. The initial plats graft themselves onto the riverbanks, extending the river's alignment inland. These blocks are clustered around the riverfront and centered on a small, but ceremonially important, town square.

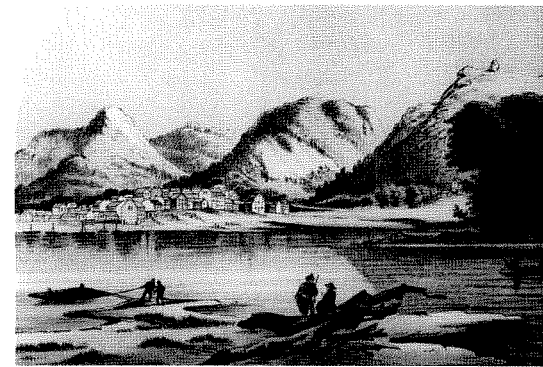
As this matrix of city blocks expands away from the river, two other forces compete with the river for control of the town form. First, the river bluffs (a particular, local condition) assert themselves as the location of three common, urban landscapes: the park, cemetery and suburb. Second, the Land Ordinance survey (an abstract, universal system) operates at a larger scale, reorienting the city grid from the river's alignment to that of the nation's consistent latitudinal and longitudinal grid.

### **Panorama and Prospect as Ways of Seeing the Urban Terrain**

This conceptual, structural consistency, this particular morphology, manifests itself in the long, horizontal panorama that unfolds as we approach a town from the river.

Between towns, the riverbanks are sparsely populated. Small wooden houses with second-story porches elevated on stilts hover above the shoreline in front of the river's forested sections; screens of trees veil farmland in the distant flood plain; clusters of tall, cylindrical grain elevators, conveyor belts and loading docks are reminiscent of monumental, constructivist assemblages — until the arrival of an empty barge starts the movements, noises and smells of loading grain.

At the edge of a town, curtains of densely vegetated slopes or transparent screens of riverbank trees open to reveal a bowl-like river valley bottom of buildings enframed by green bluffs.



Henry Lewis, *Louisiana*.  
From *Das illustrierte Mississippi-  
thal* (Leipzig: Schmidt and Gun-  
ther, 1923). Courtesy Special  
Collections/Rare Books, Univer-  
sity of Minnesota Library.

Prospect. “a place that affords an extended view... a looking forward, anticipation; foresight... to seek, to explore, to search”

These initial discoveries are followed by periods of reflection and reconsideration as we travel north, physically exploring new towns and mentally revisiting previous towns. Each day’s docking signals the transition between viewing and moving, between exploring with the eyes alone and with the entire body. The shift in modes of movement is accompanied by perceptual and conceptual oscillations. What is foreground and background in these places, town or terrain? What is figure and field in this urban morphology, grid or landscape?

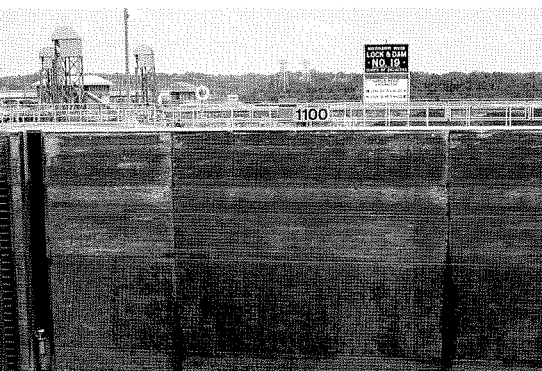
#### Terrain and Grid as Formative Features of the Midwestern Section

Three observations emerge from the contrast between the new (what I am witnessing on the trip) and the known (what I have absorbed from past experience). First, because we approached towns from the river, their original portal, the terrain (or section) figures prominently in our impression of their form and structure.<sup>3</sup>

The Land Ordinance grid (or section) figures as the second formative feature of this midwestern American landscape. The Land Ordinance grid, when recognized as the primary ordering system of the American midwest, is usually characterized as oblivious to the terrain.<sup>4</sup> Such a thesis contradicts the physical reality of the towns I visited along the Mississippi. Their urban form is memorable because of the unpredictable interaction of the grid and terrain.

The third observation is that the significant urban landscapes in these towns are located at the edge and not in the center of the town.

Each of these assertions contradicts two myths particular to American landscape literature: that the grid is the dominant, and frequently destructive, ordering system of the American midwest town and that the quintessential landscape of the nineteenth century is the central town square.



Lock and dam #19. Courtesy Elizabeth K. Meyer.

The terrain establishes both the field (the valley) and frame (the bluff) for urban form.

The bluffs also provide a prospect for understanding a town and its relationship to the river. Our panoramic understanding of the town is turned inside out as we stand at the overlooks atop these

bluffs and survey the vastness of the Mississippi River valley. This prospect should not be dismissed merely as a spot for a beautiful view; it is also a place “to seek, to explore, to search,” a way of knowing. Surely, part of a prospect’s power is a result of its separation by vertical elevation, not horizontal distance, from the land surveyed.<sup>2</sup>

Viewed from the river, the riverbank establishes a town’s base or ground plane and its threshold. The character of this threshold varies, depending on its width and depth, on the peculiarities of natural terrain (valley or bluff) and of engineered terrain (esplanade or levee). This landscape is the locus of instability and change despite all civic and engineering attempts to control it.



# Quincy, Illinois

River to the West, West to the River

## The 1889 Land Ordinance

The 1889 Land Ordinance established a grid system for the town of Quincy, Illinois. The grid consists of east-west and north-south sections, with blocks subdividing into smaller units. The grid is designed to align with the river's edge and the town's layout.

Quincy's city grid aligns with the river's edge and the Land Ordinance's section lines. Two east-west sections and three north-south sections mark the extent of the early town. The sections subdivide into blocks, some 500 feet square, others, 500 by 1,000 feet.

For a moment, Quincy's familiar gridded field reads as a figure bracketed by the town's edge parks, perched 100 feet above the river. At the same time, the parks foreground the existing terrain of sharply dissected river terraces. City grid and

park terrain oscillate back and forth, alternatively occupying the role of figure and field.

At the scale of the urban project—park, street, bridge and walk—Quincy emerges as a setting for a diverse array of spaces, each of which speaks to its particular place on the land. These spaces—parks, drives, squares, neighborhoods and boulevards—are vivid places because of their contrast to the repetitive pattern of the city plan.

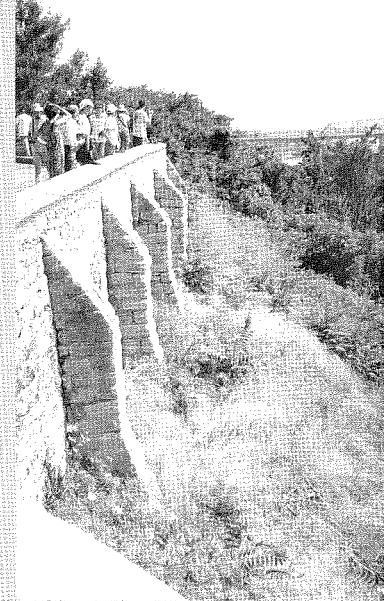
Commemoration and recreation in Quincy represent the town's history and character for us, manifesting it in landscape form. The northern parks, each one block wide and together eight blocks long, predictably provide prospects of the Mississippi. Curving carriage drives line the bluff, protected from the edge by a massive stone retaining wall. The drive leads north into the woods, where it crosses gorges of horizontally bedded limestone. There, atop the soft gray limestone bridge spanning the gorge below, the rawness of the Illinois landscape is preserved within town.

To the south, at Woodland Cemetery, a different sensibility takes hold. Three elements—drainage, land terracing and statuary—intersect, imbuing the cemetery with a unique landform and character. Circulation and drainage are interwoven in a con-

crete and grass warp and woof that threads through terraced plots. The drives have central swales that collect water on the surface, and intermittently placed drains divert water directly downhill. The sloping walks prevent water from draining across the plots and provide an undulating counterpoint to the stepped planes of tombs and markers.

Quincy's remarkable urban landscape also results from unusual transformations of its block pattern. The first transformation, an open block near the town's original center and now the town square, was created by clearing or "not building." The act of not building carries symbolic meaning: the town's history can be read in the density of objects (war memorials, statues, commemorative fountains) and the type of events selected for commemoration.

The second deviation occurs at Park Place, a residential block of large, yet unpretentious, houses overlooking a 165-foot-wide boulevard. The houses are set five feet above the street and forty feet back from the sidewalks. This separation from the public way repeats the town's relationship to the river—proximate, yet detached; visually connected, yet vertically separated. In the nineteenth century, street and river were both functional necessities, vital transportation corridors for commerce, and



landscapes to be viewed and admired from a distance, from the shelter of the front porch or bluff park.

The third variation occurs in a fragment of an 1889 romantic suburb called Lawndale. The suburb's winding drives have little to do with topographic relief; rather, they differentiate this speculative development from its surroundings. Yet Lawndale is only a fragment; after a block or two of sinuous strolling, one returns to the grid's familiar grain and orientation.

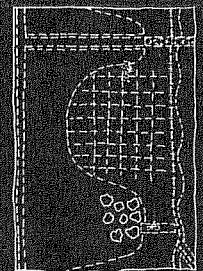
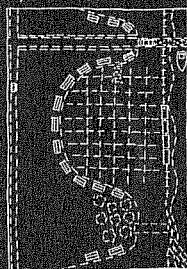
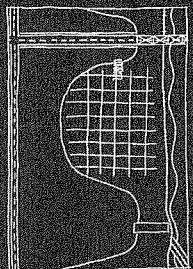
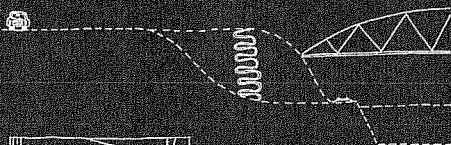
What is remarkable about Quincy, then, is the way in which urban landscape projects work at two contextual scales—the river and the town. Quincy's bluff parks and cemetery bracket the river facade in both plan and elevation. At the scale of the town block, a number of projects continue this dialogue between grid and terrain. And the town square, residential boulevard and romantic suburban drive—resistant to the grid's universalizing nature, yet reluctant to reject its order—construct sites, make place, calibrate distance and announce difference without subverting the whole.





# Burlington

River mile 404, River elevation + 520'



Burlington's topographic morphology is similar to Louisiana's but larger in scale. The town sits in a valley with its residential neighborhoods occupying the flanking hilltops. Each hill has its square park around which fashionable residences clustered.

The slopes of these hills are steeper than in Louisiana. The grid defers to the hills in two ways: by eliminating streets where the slopes are too steep and by inventing an alternative means of negotiating terrain. The second strategy is found in Snake Alley, an 1894 project that transformed North Sixth Street into a curving brick alley (preceding San Francisco's Lombard Street, built in the 1920s). Snake Alley has been a continual source of pride to Burlington, as is evident in the residential historic district surrounding the alley and the repeated reference to the alley in contemporary tourism brochures.

This pride in local response to the intersection of the grid and terrain is all the more poignant in light of a more recent urban landscape project located a few blocks away on Jefferson Street, the town's main commercial street. It was "improved" with a pedestrian mall that has more to do with preconceived ideas inserted into a locale than it does with the particulars of the place. Unlike Snake



Alley, the Jefferson Street mall occupies a parcel, but does not construct a site.

This is not to say that all landscape design has to be contextual, to fit, to emanate from the specifics of a place. Rather, what seems successful—in fact meaningful—in the towns we visited is the dialogue between the new and the existing, between the ideal plan type (the grid) and the terrain's circumstances.

There are other clues that twentieth-century urbanization has not been kind to this nineteenth-century commercial and civic center. One of the town's bluffs has been severed from downtown by a depressed arterial. One of the many blocks demolished for the bypass formed the north facade of North Hill Park, a residential square.

Fortunately, the town's continuity with its southern bluff is still intact. There Burlington's late nineteenth- and early twentieth-century suburbs were connected to the downtown by a trolley that negotiated Main Street's steep slope. The terminus of this trolley line seems to have

been a loop that bridges over a steep ravine as it enters Crapo Park.

Crapo Park, situated at the southern edge of town, combined the characteristics of a typical Victorian pleasure ground with the riverview park seen earlier in Louisiana. Its overlook is large enough to hold public gatherings and we are told that presidential candidate Jimmy Carter held a rally here. That this 1976 campaign event was held in an edge park located on Main Street but a mile south and 130 feet above Market Street tells us much about the shift of civic life from the center of town to its edge. In 1858 one of the Lincoln-Douglas debates took place 80 miles south of here, in Quincy's Washington Square, around which that town was built.

Top: Snake Alley. Courtesy Iowa Division of Tourism.  
Drawings by Mary deLaittre. Courtesy Design Center for the American Urban Landscape.

Survey. “to inspect  
or take a view of, especially in a general  
or comprehensive way. . .  
to examine carefully with reference  
to condition, situation, or  
the like to determine the  
boundaries, form, extent, area,  
contour, etc., of  
(a tract of land)”

### Scaling the Grid—Land Ordinance, Town Plan and Urban Project

What is the Land Ordinance grid’s influence on land organization in the American midwest? The Mississippi River basin is divided into 24-by-24-mile squares, each of which is subdivided into six-by-six-mile townships bounded by county roads. Most towns that we visited were plotted within 1/36 of the township, the one-by-one-mile section.<sup>5</sup>

Viewed at a scale larger than the section, the landscape bears the imprint of a pervasive north-south orthogonal matrix within which the circumstances of land use and terrain are accommodated. The patches of the quilt may vary in color and pattern, but the consistency of their size and shape contributes to the predictable regularity of the quilt. Within the square and the township, the grid and the terrain maintain a somewhat easy relationship with one another: one defers to the other at possible moments of conflict or intersection.

However, within the smaller scale of the section, one begins to discern another system of order. There is literally and figuratively a much closer fit of terrain and grid. If a prominent natural feature exists within or adjacent to the 640-acre section, the terrain frequently asserts itself as the controlling system, not the circumstantial event.

Of course, a grid may structure a town’s blocks, alleys, streets and fields. But this local grid frequently orients itself to the river, a bluff, or a creek, not to the north-south Land Ordinance grid. The size and shape of the blocks, their grain and directionality, their extent or boundary, and their inevitable inflection to new orientations, sizes and shapes, are all suggested by the terrain.

This modulation or inflection from the Land Ordinance grid (a universal, abstract order given concrete form on a national scale) to the individual town grid (a local, particular order emerging from the figural characteristics of the terrain)

denotes a reversal of priorities, a flexibility in the Land Ordinance grid. In short, “the ubiquitous grid” is really many grids of many scales with varying means of expression and varying degrees of interaction with the other system of order, the Mississippi River Basin physiography.

### Subsurface and Surface Terrain

What is the role of the terrain in the urban landscape morphology at the scale of the section? First, the landscape’s undulations take on the role of figure, not background; the landscape has a conspicuous form, shape and outline upon which speculative block patterns are inscribed. Second, the topography predicts a town’s volumes, masses, circulation, boundaries and contours; as such, the terrain is the town’s armature.

The order imposed on a town by its particular terrain is as much a consequence of the subsurface as it is of the surface. The subsurface of the zone through which I traveled, the dissected till plains area of the central lowland, consists of unstratified, glacial drift eroded by the Mississippi River and its tributaries. This structure is indirectly expressed on the surface as physiography interacts with the processes of wind, water and weather. Erosion has exposed steep bluffs of sandstone

and limestone and creates narrow secondary creek valleys — hence, the small bowls and prominent bluffs that characterize so many of our first impressions of these towns.

Also contributing to the form and contour of the town are the degree of curvature and orientation of the river, the steepness of the riverbank, the slope and width of the river terraces, the number and size of the intersecting stream valleys and the vertical relationship of the valley bottom to the opposite riverbank's slopes.

#### Urban Landscapes as Edges and Boundaries

The contour of the town — the line demarcating the extent of its form — is clearly, but discontinuously, articulated by the topography. These edges are not abrupt and emphatic. Instead, they are marked by changes in material, elevation, orientation and scale that have spatial and volumetric dimension. Some riverfronts are zones of transition and flux that provide

for the advance and retreat of the river. Marginal uses that can tolerate occasional floods have prospered here: at first, commercial facilities dependent upon the river traffic; later, recreational facilities tentatively linked to the river's edge. Riverfront edges that exhibit substantial changes in elevation from land to water level permit more substantial urban activities, including promenades for edging along the brink between terrace and slope.

The edges to the north and south are frequently the slopes or bluffs that connect the river valley to the prairie plain beyond. These edge parks or cemeteries operate at two scales. Their steep, wooded slopes bracket the orthogonal town grid, allowing it to compete for the role of figure.

Simultaneously, the hilly, wooded parks serve as counterpoints to the farmed prairies and suburbs beyond, signaling a threshold between city and country, town and fields.

These these bluff parks and cemeteries are places of orientation, of surveying, enabling one to view (and understand) the town and its setting, to appreciate its economic and scenic values, and to “figure out” its precise morphology. Despite their seemingly marginal locations, they are integral to understanding the town's form and social life.

Since access from the town to the plain beyond logically follows a shallow slope or narrow river valley, the town grid usually fragments as it finds its way to the plain. Without exception, this fragmentation gives way to the Land Ordinance grid's section or township line as the town expands away from the river. The lines of shear or shift between the town grid and the Land Ordinance grid take many forms — irregular streets and blocks giving way to country roads and building parcels. They are the least noticeable edge, as they are manifest in plan more than in elevation.

#### The Urban Project

One clearly sees the interaction between terrain and grid at the scale of an urban project. This interaction takes the form of disruptions to the city grid caused by the overlay of topography, hydrology and geometry. One such disruption, the twenty-five public stairs and the fenelon that connect Dubuque's downtown to its bluffs some 200-feet above, occurs when the terrain slope is so great that city blocks cannot continue. Rather than allow the slope to preclude circulation of any type between bluff and valley, Dubuque constructed elaborate stairways that traverse the steep terrain.

The plan of Louisiana is an example of an intersection of the town grid and the hydrologic



City street meets the river in a boat landing, Quincy, Ill.  
Courtesy Elizabeth K. Meyer.



# Dubuque, Iowa

1847-1850s, the city of Dubuque



Dubuque's harbor is unlike any we have seen so far, enormous and well protected from the river's changing moods. Dubuque is also one of the densest cities I've seen on the river. The steep bluffs and the scarcity of valley land resulted in continuous street walls and tall buildings, many constructed of brick, instead of wood or sandstone.

In search of a post office, I wander through the streets seeking the inevitable town square. At last, I hear the town square. Yes, hear it. A go-cart race is taking place around the square. All the drivers are middle-aged women. At last, a town square with a purpose—and a post office.

This town square, 250 by 250 feet, is the same size as most of the downtown blocks. To the north, the blocks elongate, adjusting to a long, narrow valley leading out of town. Within the central field of blocks, the town square and a park are the only public spaces. Land is too precious for more public space; in fact, acres of land have been filled into the river to accommodate industrial uses.

Many of the city's residential districts and parks occupy the western and northern bluffs. The separation between the bluff and valley seems insurmountable until one notices a fenelon at the base of Fourth Street. This small, counter-balanced elevator and pulley consists of two cars that rise 189 vertical feet in 220 horizontal feet. Built in 1882 by the bluff's residents, it is one of more than twenty urban projects that connect bluff and town.

Throughout Dubuque, the intersection of grid and terrain is concretized (often literally) in public stairways. One of the stairways is an intricate sculptural affair



that choreographs our movement from terrace to terrace, view to view, expanse to closure. Some of the stairways are exuberantly detailed with cast iron steps, concrete walls and profuse plantings. The intersection of the grid and the undulating topography creates a civic presence of public stairways and one fenelon that, together, make visible the town's topographic specificity.

pattern. Instead of enclosing the tributaries that empty into the Mississippi in culverts and eradicating their influence on the visible city form, Louisiana's blocks interact playfully with the drainage system. Open channels flowing through midblocks and building basements and under metal sidewalk grates and street bridges all contribute to one's awareness of the drainage patterns through town. Over time, one mentally constructs the creek's course from the traces manifest in urban projects — walls, bridges, grates and channels.

#### **Terrain as Urban Armature and Figure**

I am arguing for a reading of the Mississippi river towns that restores terrain to the role of urban armature and figure. The relationship between grid geometry and terrain geomorphology varies according to the scale of the site under scrutiny. Neither system is universally dominant; rather each deflects, intersects, overlaps, erases and transforms the other.

Such a premise insists on the dissolution of the simple, binary oppositions used to describe, analyze, and conceptualize urban landscapes. Such pairs, architecture and landscape, city and nature, built and natural, formal and informal, assume that one concept is not only the opposite, but also the negation of the other; that one has structure and the other does not; that one is dominant and the other is not.

The morphology of urban landscapes proposed here emerges out of a language of intersection and inclusion. These inclusive, intersecting landscapes occur throughout a town in small projects, and along its edges or boundaries as riverfronts, bluff cemeteries and riverfront parks, shifts from the river's to the Land Ordinance grid's alignment, etc. Their typological consistency owes more to the particularities of topography, geomorphology and adjacency than to func-

tional and geometric morphology that inform most theories of architectural typology. In this theory of urban landscape morphology, site is an ordering system, not a circumstantial factor responsible for a formal type's transformation.<sup>6</sup>

#### **Formulating a Theory of Urban Landscape Morphology**

The principles of an urban landscape theory that posits order in the terrain and that looks to both geology and geometry as the basis for a formal morphology are as follows:

Terrain is an ordering system that interacts with the geometric plot (the grid) to structure the urban landscape, establishing a topological frame for urban space, circulation and life. The geometric plot defers to the terrain within the section — in the siting and orientation of a town as well as in the demarcation of its contour or boundary. The plot and terrain also intersect at the scale of the urban project, increasing the complexity and differentiation of city sectors and tailoring the project to the specific characteristics of the site.

A theory of urban landscapes that is formulated on the premise that a site's topography, geology and hydrology are structural, not circumstantial, must employ descriptive diagrams and drawings (such as the section and axonometric) that figure the terrain, that make it conspicuous and prominent.<sup>7</sup> A scheme for an urban landscape that is conceptualized sectionally can not avoid (or ignore or erase) the terrain in the same way that a conceptual plan can.

This theory of urban landscape morphology suggests site design strategies of scaling, intersection, overlay and superimposition, instead of strategies of composition, to create patterns of urban form. This principle is not an issue of stylistic appropriateness. It is a necessity if one is to avoid the biases of compositional strategies of addition and subtraction predicated on ideal

orders (geometry) and circumstantial factors (site and use).<sup>8</sup>

This theory offers an alternative to contemporary urban or landscape design theories that privilege the town plan over the topography. In these theories, which have geometric biases, the structure of the geomorphology and terrain is seen as “disorder, disruption, distortion, awkwardness and irregularity.”<sup>9</sup>

This theory also challenges the writings of artists and designers who have been influenced by phenomenological theory. This essay might be seen as expanding their concerns to include a site’s structure as well as its perceptual phenomena and, most importantly, how the urban landscape can be as meaningful to the collective as it is to the individual.

In place of these theories, this essay offers a perspective that foregrounds the terrain as a formative feature of urban landscape morphology. Such foregrounding calls into question the myth of place-making that seeks order in the general, the grid, the plan, and the marking of center. Instead, by altering one’s perspective — in order to view landscape as foreground, not background, and to describe it as a system of intersections (both — and) not oppositions (either — or) — the particular, the terrain, the section and the marking of boundaries and edges are understood as essential, not marginal, components for placemaking in the urban landscapes of the Mississippi River valley...and beyond.

#### Notes

The definitions accompanying the text are derived from *Webster’s Twentieth Century Unabridged Dictionary*, 2 ed. (New York: Simon and Schuster, 1983).

1. I joined the six-week journey during the middle two weeks. A longer version of this article includes vignettes from each of the eleven towns I visited.

2. This combination of proximity and separation occurs at many scales in the Mississippi River basin. One need only cite the relationship of the residential front porch to city street in Quincy, Ill., to envision analogies at the scale of the urban project.

3. I am using the word “section” in two distinct ways in this essay: “section” as a

device in American land platting (the division of land into one-mile by one-mile squares), and “section” as a drawing convention that slices through the plan vertically, depicting the terrain’s vertical change.

4. See Paul Spreiregen, “Designs on the Land,” in *The American Land* (New York: Norton, 1979), 69. He describes the grid in the following way, “so it is that the grid has come to symbolize the explorative excesses of the nineteenth century, the careless and often irresponsible use of the land.” While J. B. Jackson’s “Almost Perfect Town,” described in Ervin Zube’s *Landscapes*, is also laid out in an “inflexible gridiron,” Jackson does concede that “strangely

enough, this inflexibility in the plan has had some very pleasant results.”

5. For an excellent discussion of the structure of the Ordinance grid, see Richard Bartlett, “Ownership and Order: Legislations and Provision for Government” in *The New Country: A Social History of the American Frontier 1776-1890* (New York: Oxford University Press, 1974), 69.

6. Rafael Moneo, “On Typology,” *Oppositions* 13 (Summer 1978):23-45.

7. Mario Gandelsonas’s analysis of Des Moines comes to mind as an example.

8. One might think of the writings of Bernard Tschumi and Peter Eisenman as representative of recent interest in the architectural implica-

tions of these strategies. For a critique of one such architectural theory from the perspective of landscape design, see my article, “The Public Park as Avant-garde (Landscape) Architecture” in *Landscape Journal* 10:1 (Spring 1991).

9. Here, I could cite the theories of new town planning advocated by Andres Duany, Elizabeth Plater-Zyberk and their colleagues. Those theories also draw on existing urban landscapes, but their architectural lens is neither wide nor focused enough to discern the structural role that the terrain played in the projects of their heroes, such as John Nolen and Raymond Unwin.

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