

Flooded at the Farnsworth House

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In 1988, nearly twenty years after his mentor's death, the architect Edward A. Duckett remembered an afternoon outing with Mies van der Rohe. One time we were out at the Farnsworth House, and Mies and several of us decided to walk down to the river's edge. So we were cutting a path through the weeds. I was leading and Mies was right behind me. Right in front of me I saw a young possum. If you take a stick and put it under a young possum's tail, it will curl its tail around the stick and you can hold it upside down. So I reached down, picked up a branch, stuck it under this little possum's tail and it caught onto it and I turned around and showed it to Mies. Now, this animal is thought by many to be one of the world's ugliest, but I remember Mies looked at it and said, "Isn't nature wonderful!" So he studied that possum for some time and commented on how unusual it was. How beautiful its fur was, the texture of it, and so on.

Having visited the Farnsworth House and puzzled over its strange qualities, I read Edward Duckett's reminiscence with a bark of surprise and, then, a sigh of recognition. Mies, I thought, was the quintessential urban architect: of Berlin and Chicago, Neue Nationalgalerie and Seagram Tower, Knize suits and Havana cigars. Yet here he is, standing in riverbank reeds and staring at a possum. Granted, Mies does not touch the possum. Duckett holds the possum up at the end of a stick and frames it for Mies's contemplation. And notice what attracts Mies's attention: it is the fur not the form, a dense field of coarse hair bristling with brown and tan tones. We associate framing with the act of holding the world at arm's length, but Duckett's framing affords the opposite — an immersion into the world's depths.

Duckett's story, I realized, evoked the Farnsworth House's central drama of immersion and suggested

the means by which this drama unfolded. Duckett's stick and his act of framing recall the central architectural activity of drawing: the stick, now a pencil, describes a frame, now a building, which affords a particular view of the world. In this essay, I will elaborate on the peculiar intertwining of building, drawing, and nature at the Farnsworth House; how drawing erases a positivist approach to building technology and how, in turn, a profound respect for the natural world deflects and, finally, absorbs the unifying thrust of perspective.

Approached by Dr. Farnsworth in the winter of 1946/7 to design a weekend house, Mies responded with uncharacteristic alacrity. Dr. Farnsworth had purchased a ten-acre lot outside Plano Illinois, a small farming community sixty miles south of Chicago. The lot was broader east to west than north to south, country roads bounded it along the north (River Road) and west (Millbrook), and the Fox River bounded it to the south. Although farmers had cleared the site in the previous century, handsome oak and maple trees still lined the river's edge and second growth deciduous trees shielded the site from both roads while giving way to a clearing in the center that, in turn, opened to fields to the east. Fortuitously, the unremitting horizontality of the agrarian plat dropped, steeply at first, to the Fox River.

Mies first concentrated on this slope, much as he did when siting of his European residences. In both the Riehl House of 1906 and the Tugendhat House of 1929-30, Mies crowned the site's high ground with a residential block, developed the near landscape as garden extensions of interior spaces, and extended to the distant horizon with the perspectival thrust of belvederes. There is a conspicuous thinness to both foregrounded gardens and distant horizons for they are squeezed into submission by the residences' formal grasp and lack

reinforcing connections – spatial, visual, or haptic – that would join them in a cohesive thickness. A linking middle ground does exist: the extensive park of Potsdam lies below the Riehl House and the dense cityscape of Brno bustles beneath the Tugendhat House. Yet, both drop away, overlooked.

All the more significant, therefore, that Mies slides the Farnsworth House off the hill and leaves it within one hundred feet of the Fox River. Mies places the house in the missing middle ground of the Riehl and Tugendhat houses; a ground that offers neither the restorative calm of Potsdam's municipal

Riehl House



Tugendhat House



woods nor the familiar pattern of Brno's urban fabric. The final position of the Farnsworth House, as Mies knew, is well within the flood plane of the Fox River. Here, we are at the mercy of annual floods rather than reassured by the methodical plantings of a gardener and the riverbank's forested rise blocks our view of the earth meeting the sky.

The broad northern elevation of the Farnsworth House announces itself amidst riverside trees as you approach from the east, crossing the clearing at the site's center. Now a well-kept lawn, the clearing was an unmown field of matted grasses. Even now, the clearing drains poorly and is often boggy

Farnsworth House, north elevation



under foot. Two rows of four columns raise the house five feet above the flood plane: the rows run east to west and are thirty feet apart, while the columns twenty-two feet on center. Steel C-sections clamp concrete planks into taut roof and floor planes that extend five feet beyond the columns to the east and west. The main living volume slides between these planes, its wood core visible behind floor to ceiling glass while minimal steel window stanchions mark the centers of column bays and then drift beyond their logic at the corners. Surely, this exquisitely proportioned white steel frame celebrates the triumph of its manufacture and assembly against its unstable site.

Looking closer at the house, however, we are hard pressed to support this interpretation. Even a cursory glance at the columns dispels a claim to structural clarity. Mies did not employ the minimal steel W-sections of the time but insisted on sections with a broader, more pronounced flange. Though full-bodied, the columns discourage our empathetic response. We cannot see how the columns attach to the ground (their concrete foundations are buried below) or how the columns support the floor and roof (they slip by the perimeter C-sections and their vertical thrust stops only with the afterthought of the roof's coping.) The C-sections also lack a clear structural rationale, for identical members

support both the roof and the more heavily loaded floor. Myron Goldsmith, Mies's assistant, supplemented the floor's carrying capacity by enlisting the intermediate steel window stanchions as tensile members to connect floor to roof. The wall not only attaches to the columns but is itself structural. The house obeys neither the structural logic of varying loads, nor an empathetic association of vertical and horizontal, nor even the modernist decree for separation of wall and support. There is a governing logic to this construction, however; we must look to the connections. They are hard to find.

With one exception, all steel connections at the Farnsworth House are plug welds. Plug welding is an elaborate process: steel erectors first drill the columns and beams and join them with bolts; they then level and square the frame and secure the nuts; next, they loosen and remove these same bolted connections one at a time and weld the now vacant holes solid (plug); and, finally, finishers sand the welds smooth. A curious operation. The connections require a high degree of craftsmanship, yet every craft erases the previous craft: the industrial craft of the welded connection erases the mechanical craft of the bolted connection; the handcraft of sanding erases the industrial craft of the welded connection; and the handcraft of sanding erases itself. There is no glorification of technology just as there is no remnant of craft. To underscore this, the steel fabricators brushed the steel's surface free of burrs and the erectors painted the steel with successive coats of flat white enamel. Mies did not glorify the industrial process; he erased it. If Mies understood handcraft as outmoded, he also understood industrialization as a given, a set of facts that must be accepted but should not be idealized. What the steel frame *was* did not concern Mies, what it *did*, did. And what the frame did was approach the laconic splendor of a line drawing. Specifically, it is perspective drawing that erases any distraction from the persistent thrust of its projecting lines so that the play of house and landscape can unfold into a final erasure – the erasure of perspective's dominance.

Retreating from the house and walking from east to west along its northern elevation, we see a cascade of effects that blur distinctions between building and landscape. Raw silk curtains enwrap sunlight. Annealed glass tosses back tawny tree limbs, green foliage, and blue sky amidst glimpses of the wood-clad core. White steel (never truly white) doubles in reflection and registers fleeting lighting conditions, more gradual seasonal variations of foliage, and creeping accretions of ground wash and solar discoloration. And this is only the half of it. The floor's five-foot elevation eclipses the horizon. We are submerged, then, the flood plain is no longer a remote notation. The underbelly of the house drifts closer than the pavilion above. Grass and daylight give way to darkness, dank dirt, and faint scat smells. Sympathetic echoes abound: a mechanical trunk shadows the large black oak to the south; steel joists are tattooed

with rust; concrete planks secrete moisture; and steel columns step with adjacent maple trees, trading coarse bark with fluting. A lurking underworld, one of shifting allegiances and strange participations.

Above deck to the west, allegiances collapse with the thrust of perspective and the parry of landscape. The porch frames the riverside oaks and maples with converging lines of glass wall to the left, columns to the right, and roof plane above. The porch shears the trees of trunks and crowns, leaving them seem suspended in midair. The trees counter. Especially when covered with leaves and in a light breeze, they present the eyes with a flickering field of light and color that waves off the steel frame's request for a vanishing point or even a defining horizon line. Your view dances in shimmering foliage even as the steel frame fades in cantilever.

Porch from north



As you turn the northwest corner, the house announces its methodical progression of enclosure. Drifting along the southern elevation of the house is an intermediate platform rimmed with the same C-section steel beams and nested against another line of columns, which halt just below the top surface of the platform. Simple enough: you will ascend stairs to a floor, ascend another set of stairs to a floor and a roof, turn to the left to open a door, and pass through a glass wall to the house's interior.

Vibrating underfoot in cantilever, the first stair suggests only a tentative sense of arrival, of having climbed aboard a dock. Dry set, the pavers are dead level and have a long dimension that runs parallel with the rectangular platform. Thus, they

register perspective with a subtle persistence, one that gives rise to a curious confluence of perceptions. From the east, the deck shears the trees that press to its far edge, plowing into the hillside. From the west, the travertine's horizontal measure joins the vertical interval of column and stanchion to blend with meadow and horizon, giving the landscape a defining rhythm. Perspective's web lacks the enclosure of a ceiling and a second wall, however. The open southern edge slips as peripheral visual distortions intimate the river's potential for trespass. Travertine reinforces this instability, providing both the reassuring solidity of its mass and the memory of its aquatic genesis in its pronounced grain. Lest you miss this connection, as you turn to look at the river, you see that the travertine's grain also runs parallel to the river's flow. The platform is both dock and river.

Platform from east



Platform from west



Mounting the second and more solid flight of stairs, you stand in the porch. The porch frames a view with minimal means: travertine pavers below, plaster ceiling above, steel framed glass to the right, and a lone column to the left (just enough to check lateral drift). Much as the travertine gathered the earth's varied associations, the plaster condenses those of the sky, mimicking its depth with ambient reflections. Set at nine and a half feet, the ceiling locates eyelevel close enough to the frame's center to harness its projective force while reinforcing an upright stance. Yet, the landscape again parries perspective's thrust, trapping it in the solid crease between the expansive lawn and the dense wall of tree and hillside. It is odd: as you climb to the porch and lose sight of the sky, you descend deeper into a thick field of vegetation rather than rise above it. Even as you turn to other views, the landscape's strangeness persists; a landscape that you are both removed from, examining from a distance, and thrown into, immersed.

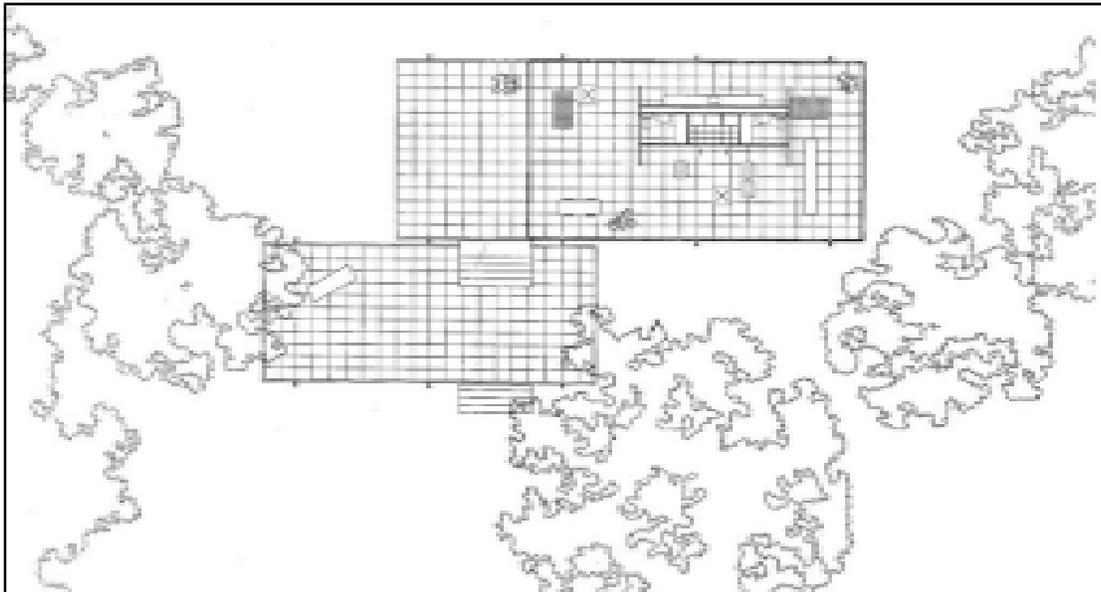
Turning, you enter the house, an interior that marks differences of outside and inside even as it maintains the exterior's material palette. The softer metal of the aluminum door handle conforms to the hand and registers slight temperature differences between outside and inside. Travertine pavers also respond to touch, radiating heat from the hot water pipes buried in the deck below. The ceiling, subtlest of all, takes on a muter ambiance for glass transmits most but not all daylight and the plaster also reflects the warmer tones of the wood core. With this enclosure, the drama of frame and landscape intensifies. Three additional elements support this production: window frame, core, and furniture.

All reports to the contrary, the Farnsworth House has walls. Steel stops clamp both sides of the glass, their slender sections revealed by a third steel inset that couples them to the ceiling, columns, and floor. These minimal jambs are familiar to us; they are the ubiquitous surrounds of modern paintings. The core, on the other hand, is a trickster that diffuses simple oppositions, suggests the undercarriage's affinities, and establishes views while destabilizing them. The furniture counters the core's antics and supports the windows' frames. Given our tendency to prowl around the core, the furniture offers repose and establishes a reassuring sense of scale. And, as we might expect, the

Porch



Plan



View from dining room table on plan (furniture placement is incorrect)

furniture sets up particular views, each relating to a different position of the body: sitting at the dining table, lounging at the fire, standing in the galley kitchen, and lying on the bed.

Seated at the dining table, you find a reprise of the porch vista. Eyelevel is just below the house's horizon line and, again, the joint of lawn and trees carries the frame's thrust. The foreshortening of the pavers' rectangular cut accelerates the view framed by steel bar stock. Much as the chair stabilizes the body, the bar stock stabilizes the view, especially at the corner, allowing the eyes to focus rather than drift in panorama. The lone column reinforces this strategy, breaking the horizon's extension with its upright stance and dividing the frame into two recognizable geometries, a large square frame to the right and a narrower stacked double square to the left (this last dividing the view into lawn and tree.) Thus framed, however, the horizon line no longer extends in width or in depth, and the landscape again drifts free. The column's lack of capital or base and the sympathetic coloration of the floor and ceiling reinforces this drift — the more you concentrate on the landscape, the

more floor and ceiling appear interchangeable. The lawn, its fine light texture resembling that of the absent sky, seems to trade places with the darker, heavier forest, suggesting that you may be upside down. And with gravity, too, transgressed, the leaves, trunks, and grass are unleashed to their own ambiguous depths that shift with changes of light, moisture, and wind. The fleeting quality of these perceptions seems in concert with the eye's pulsation, the flow of images indistinguishable from the flow of electrons in the optic nerve, the vision of natural processes inseparable from the natural processes of vision. The provision for sitting, for stabilizing the body during this unsettling experience, is critical.

As becomes clear when you rise, walk to the fireplace, and turn to the porch. A rush of glass reflections, hard steel, and dark water speeds by as your view careens into a slice of trees. Barcelona chairs wait, huddled at the fireplace, and braced by the core and the wardrobe that blocks a similar view from the dining table. A prospect, then, calling out the house's most violent view as trees and hillside refuse its perspectival thrust. Seated in the

View from fireplace

broad luxury of the low-slung chair, close to the floor that flips to the vertical embrace of the fireplace, you again feel perspective's pull. The joint of travertine and primavera leads your view along a horizon line that is scattered by forest. Yet, a helpful measure is also apparent; the core's skirt blocks its own directive. Stanchion, paver, and panel measure distance while registering changing atmospheric effects — even the glass's reflections are no longer disconcerting. Entryway and porch disarm the view by framing it twice. The forest now settles, no longer abrupt and threatening, and your eyes, too, adjusts. Like a chaperone's ruler, the house holds the forest to a respectful distance and your eyes move forward, engage the forest, and shuffles into a dance of pulsation and iridescence, a playful blur of light, atmosphere, and vegetation.

Eventually, your view drifts to the left, towards the river. Columns and stanchions block oblique views, clipping the horizontal expanse into discrete vertical segments that become broader and decelerate as you turn to look straight on to the river. And here, the house drops away and your view relies on the landscape's measure of stacked horizontal bands: a foreground of grass, a middle ground of river, a background of hill and trees, and a final

field of sky. No longer a solitary horizontal line, the horizon succumbs to the river whose power is more foreboding. On some days, the foliage's shifting depths infects the stacked landscape — the river seems closer than the grass. On other days, the river does pull closer than the grass and swallows it.

Rising from the chair and circling the core to its northern flank, you enter the galley kitchen and a compressed version of the sitting area's trauma. Yet here, the experience does not threaten for steel, travertine and primavera measure the space and the kitchen's narrow slot holds you secure. Overgrowth now hems in kitchen galley views to east and west, yet early photographs suggest a different experience; the dense cover of the rising hill did contain the western view, but the eastern view opened to fields. Its window framed a distant horizon of earth and sky. Unlike Mies's European work, however, the Farnsworth House brought intimations of infinite extension to ground with the everyday workings of a farm and, closer to home, the mundane tasks of preparing food and washing dishes. Turning counterclockwise with one's back to the core, the distant horizon gave way to the gradual rise of the hill and the encroachment of trees to the north and west, a transition accelerat-

Original galley view

ing, decelerating, and accelerating with the measure of steel, the vista moving from release to immersion in one fluid turn.

As you walk the house, gathering views in different combinations and at different speeds, one view is conspicuously absent — the view of the horizon from the northern zone of the house, one that would skip across the water to the wooded bank and an expanse of sky. The core blocks this prospect through much of the house and the ceiling shears it through the remainder. Even the daybed, lower to the floor and positioned to offer the view, cannot offer the view; a column thwarts it. It is the river that dominates, a body of water whose boundary is always in doubt and whose currents you never tempt. The house offers an expansive view of the sky only once; lying on the bed in the sleeping area, if you roll to the river, it is there. Yet, the view is clamped upright between core and wardrobe, as if your might walk across the water, erect and certain. Yet, too, close to sleep... a dream.

The Farnsworth House does not concern itself with a distant shore or a garden's preserve, but with an immersion in tree leaf and limb and the eye's pulsations. Here, Mies frames another landscape, one

View from bed

that includes the salubrious arousal of sensation described by a guest who spent an evening in this same bed and awoke:

"the sensation is indescribable— the act of waking and coming into consciousness as the light dawns and gradually grows. It illuminates the grass and trees and the river beyond; it takes over your whole vision. You are in nature and not in it, engulfed by it but separate from it. It is altogether unforgettable."

But for this: Midwestern light is not often brilliant, revealing a crisp, colorful surround but is more often overcast, humid, obdurate, absorbing us in its density. And this, too: if the Farnsworth House separates land and water into separate transverse views"— the northern landward views subverting the frame's search for release, and the southern water views rearranging themselves into multiple horizons"— then the views along the length of the house lurch even closer. Water and land, like eye and leaf, negotiate an unstable division; they are

subject to the Fox River's propensity for swirling chaos as well as, on occasion, a fluid order. The house stands in the most volatile zone of its site and is elevated, not to remove it as an abstract idealized pavilion, but to immerse it like a stone barge. Our senses are charged with a liberating awareness of nature's intoxicating thickness, certainly, but we are also cautioned with a disquieting sense of nature's suffocating embrace. The Farnsworth House threatens to drown us in a flood.

But we do not drown. The Farnsworth House always frames a view, constructs it, just as our view of nature is always framed, constructed. Much of twentieth century critical thought is an obsessive diagnosis of these frames and, with great care, Mies marshaled two of the central culprits: technology and perspective. Mies built with glass and steel because they were a given, a technological achievement of his time that should not be avoided. But he would not idealize them. Mies deployed perspective but he was as wary of its power as he was of technology's. Above all, Mies sites the Farnsworth House so that nature disarms both culprits — waters swirl below, forests press above, and strange sympathies flicker throughout— and the house seems to participate in nature as well as offer a view of it. At the midpoint of his torrential

century, when so much had already been lost by himself and so many others, Mies intimated that further losses were necessary if we were to save anything. If we cannot erase frames, we can erase obvious falsehood, and then we might glimpse truth.—“If you view nature through the glass walls of the Farnsworth House,” Mies intoned late in his life, “it gains a more profound significance than if viewed from outside.”²

One truth has emerged from the Farnsworth House. Mies positioned the house above the highest predicted floods: those anticipated only once every one hundred years. Yet in 1954 and again in 1996, the river rose six feet above the one hundred year mark, breaking glass and destroying interior woodwork. What neither Mies nor Goldsmith could have anticipated was the increase in water runoff caused by development in the Chicago area. The National Trust for Historic Preservation purchased the Farnsworth House just this year and must consider moving the house to higher ground. This is untenable — to move the house is to destroy it. Yet the alternative is haunting: a house, which testifies to man's ability to look at all of nature with a respect and admiration, now swallowed by nature run amuck through man's willful ignorance.

View to river from north



Site Plan (from Vandenberg, p 26)

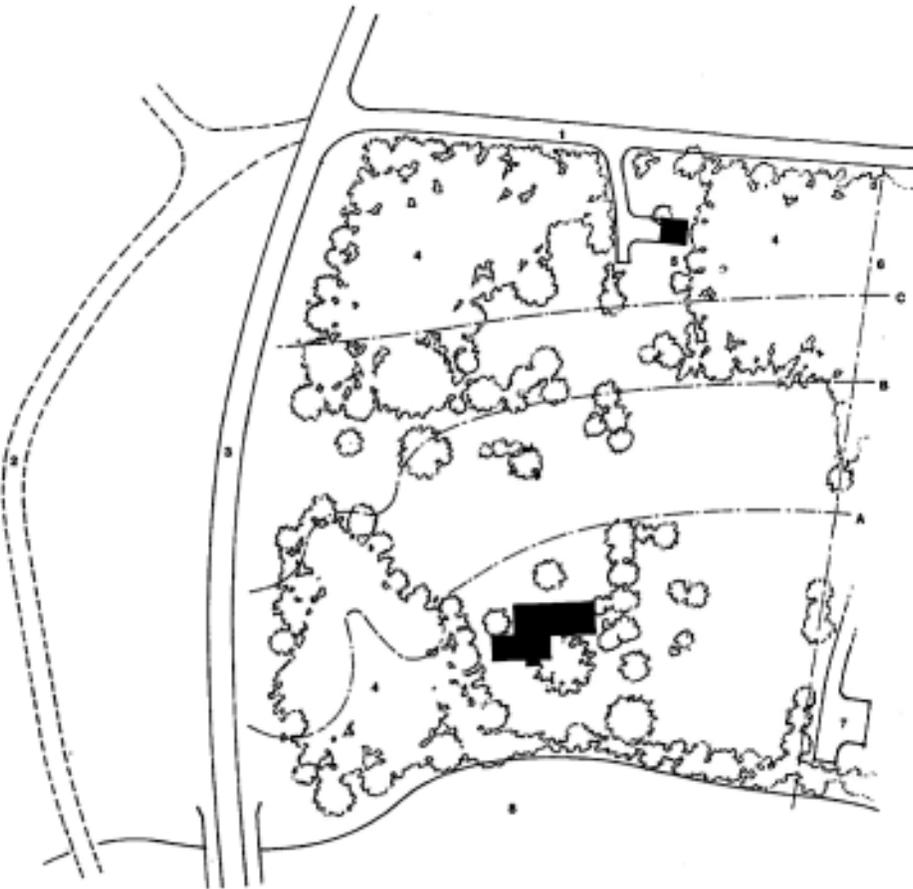
Farnsworth House floor = 15' above river level

A = high water mark for a few days every year (14' above river level)

B = high water mark when the ice breaks up (16' above river level)

C = high water mark during 1996 flood (20' above river level)

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| <ul style="list-style-type: none"> 1 River Road 2 Plano Millbrook Road (1961) 3 Fox River Drive (today) 4 Trees 5 Garage built by Dr Farnsworth 6 Original site boundary 7 New parking area added by Lord Palumbo 8 Fox River | <p>Approximate heights above river level:</p> <p>Farnsworth House floor 15 ft (4.6m)</p> <p>Contour A (high water mark for a few days every year) 14ft (4.3m)</p> <p>Contour B (high water mark when the ice breaks up) 16ft (4.9m)</p> <p>Contour C (high water mark during the 1996 flood) 20ft (6.0m)</p> |
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BIBLIOGRAPHIC NOTE

This essay grew out of my admiration for Kenneth Frampton's *Studies in Tectonic Culture*, my experience of the Farnsworth House, and my inability to reconcile the two. Four essays guided me towards a more coherent understanding of the house: Kenneth Frampton's "In Search of the Modern Landscape" outlined Mies's use of the belvedere; Rosalind Kraus's "The Grid, the /Cloud/, and the Detail" suggested a more complex understanding

of Miesian space; Robin Evan's "Mies van der Rohe's Paradoxical Symmetries" unveiled Mies's horizontal symmetries; and Beatriz Colomina's "Mies Not" linked those symmetries to drawing and the horizon.

Aaron Vinegar, my colleague at the Knowlton School of Architecture, graciously included me in his graduate seminar "Horizons" and our many conversations were invaluable. The reading list for this seminar included *The Victorians and the Visual Imagination* by Kate Flint, *Uncommon Ground: Ar-*

chitecture Technology, and Topography, by David Leatherbarrow, *Force of Imagination, The Sense of the Elemental* by John Sallis, and "The Horizon" by Cornelius Van Peursen. Leatherbarrow's *Uncommon Ground* was particularly helpful in clarifying landscape relationships of foreground, middleground, and background.

Robert Pogue Harrison's *Forests, The Shadow of Civilization* and Leo Marx's "The American Ideology of Space" provided me with a cultural context for the landscape strategies of the Farnsworth House while Barry Bergdoll's "The Nature of Mies's Space" brought Miesian landscape to my attention in a forceful and coherent manner.

My initial forays into Mies's building techniques included William Jordy's "The Laconic Splendor of the Metal Frame" and Colin Rowe's "Chicago Frame." When the house demanded a closer examination, I turned to the documentation provided by the texts of Werner Blaser, Dirk Lohan, Edward Ford, Franz Schulze, and Maritz Vandenberg. Leonard Koroski, who has worked on the Farnsworth House with Dirk Lohan, generously provided me with information on the technique of plug welding. Fritz Neumeyer's *The Artless Word: Mies van der Rohe on the Building Art* and "Mies's First Project: Revisiting the Atmosphere at Klösterli" placed technical issues within the context of Mies's evolving attitude to technology.

For general biographical information and overviews of Mies's career, I referred to Franz Schulze's *Mies van der Rohe, A Critical Biography* as well as Peter Blake's "Mies van der Rohe and the Master of Structure," Phyllis Lambert's "Mies Immersion: Introduction," and Terence Riley's "Making History: Mies van der Rohe and The Museum of Modern Art."

The Duckett quotation on page 1 is from William S. Shell's "Impressions of Mies: An Interview on Mies van der Rohe His Early Chicago Years 1938-1958," pages 31-32. The guest comment on page 16 is from Vandenberg, page 23. Mies's statement on page 17 took place during Christian Norberg-Schulz's interview as reproduced in Neumeyer's *The Artless Word*, page 339.

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