

# Savoye Space

The Sensation of the Object  
by **Daniel Naegele**

The house will sit in the middle of the meadow,  
like an object, without spoiling anything.  
—Le Corbusier

The object is surely dead. The sensation of the  
object is of first importance.  
—Paul Klee

To transform space . . . it is first necessary to  
eliminate rigid objects, conventional receptacles:  
one must throw into question the view itself.  
—Carl Einstein

**LE CORBUSIER'S EARLY EDUCATION** encouraged him to think of architecture in idealistic and metaphoric terms: architecture not as building, but as representation. Schooled in the neomedieval beliefs of John Ruskin and Owen Jones, and in the organic similes of art nouveau, he was convinced that art and industry, like art and craft in former times, ought naturally to ally. For Le Corbusier, a building was always *like* something else. His La Chaude-Fonds houses were like the nature that surrounded them, with their roofs designed as curves and folded gables to echo the shape of local fir trees.<sup>1</sup> The Salvation Army building was like a beached ocean liner, the Unités like filing cabinets or wine racks. Continuous ribbon buildings projected for Rio de Janeiro and Algiers were like bridges or aqueducts or even like the Great Wall of China, and the polychrome Nestlé Pavilion was like a collage painting into which the viewer could walk.

Most overtly, however, Le Corbusier's Parisian houses were "*machines à habiter*." Taut, precise, placed *on* the ground, never *of* the ground, in many ways they were a formal coalescence of the warehouse and the silo, types of American



Arrivée des voitures sous les pilotis

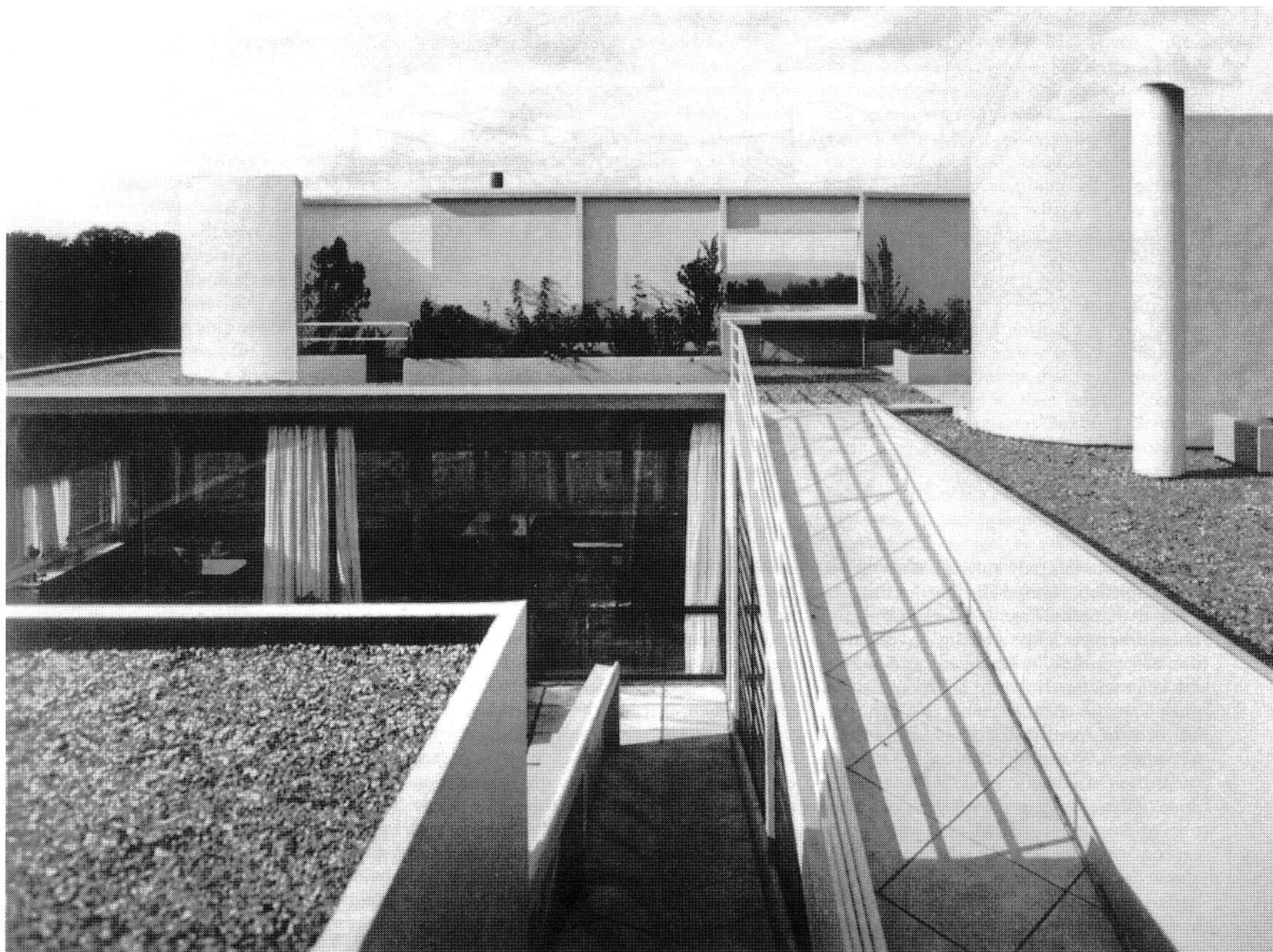
building extensively praised in *Vers une architecture*. The warehouse—a “shed” decorated by its extreme lack of decoration—and the silo—a building-sized machine of intriguing volumes and shapes—were creations of calculations, large-scale containers built by engineers along strictly utilitarian lines. Both types seemed to be delivered to rather than derived from their sites.<sup>2</sup> That industrial manifestations of this sort might align with the efforts of avant-garde art had been established a decade earlier in various Cubist and Futurist works, and by artists like Fernand Léger and Marcel Duchamp, the latter’s readymades being a most concise, if somewhat less than sincere, summation of the situation.<sup>3</sup> By the 1920s, art and industry had allied, and to meld silo and warehouse forms to arrive at a five-point formula for modern architecture must have seemed both logical and progressive. Free facade, free plan, *pilotis*, ribbon windows, roof garden—all might be derived from a melange of building-sized industrial containers of this kind. Like the *objets-types* pictured in Le Corbusier’s Purist paintings, silos and warehouses were authentic and presumably embodied the spirit of the age. It was therefore not unreasonable to expect similarly composed machines

à habiter to be *almost* as objective and *almost* as authentic as that which inspired them.

This, however, was not often the case. Le Corbusier’s subscription to “factory aesthetic lite” did not result in convincingly authentic *object* architecture, though persistently it was sold as such.<sup>4</sup> What *was* provoked, however, was an architecture of space; but it was not until much later that Le Corbusier came to recognize this. “I see—looking back after all these years,” he wrote in 1955 just a decade before his death, “that my entire intellectual activity has been directed towards the manifestation of space. I am a man of space, not only mentally but physically. . . .”<sup>5</sup> Nine years earlier, in the short treatise “L’espace indicible,” Le Corbusier had proclaimed a new theory of architecture, one that held space to be a uniquely 20th-century *venustus*, the Vitruvian “delight” that had been absent from earlier modern movement theories. As he described it, this space was a peculiar, decidedly “ineffable” space; it was not a static, absolute, and objective entity, but rather a relative sensation, a “vibration” between the “action of the work (architecture, statue, or painting)” and the “reaction of the setting: the walls of the room, the public squares . . . the landscape.”

He insisted on avant-garde painting as precedent for this phenomenon, indeed, on its having provoked the phenomenon, and he closed his treatise by noting: “The essential thing that will be said here is that the release of aesthetic emotion is a special function of space.”<sup>6</sup>

*The release of aesthetic emotion is a special function of space.* Surely this must be one of Le Corbusier’s most potent declarations, with implications not only for the architecture that followed it but also for all that came before—a statement that seems to insist on the critical reassessment of an oeuvre that had been assumed to be about something else entirely. For if space was to be the *venustus* of modern movement architecture, how to know and to qualify the presence of space? How to evoke the presence of absence; how to make space felt—and why, in the 1920s, would anyone want to conjure up such a situation anyway? For surely then, unlike now, at least in Paris, space did not exist. That is to say, the notion of space as related to architecture had not yet gained currency in France.<sup>7</sup> Yet if in fact Le Corbusier’s “entire intellectual activity” had been directed toward the “manifestation of space,” the obvious questions arise as to the nature of such a space at such a time and



Promenade architecturale

where we might find evidence of it even in his early architecture.

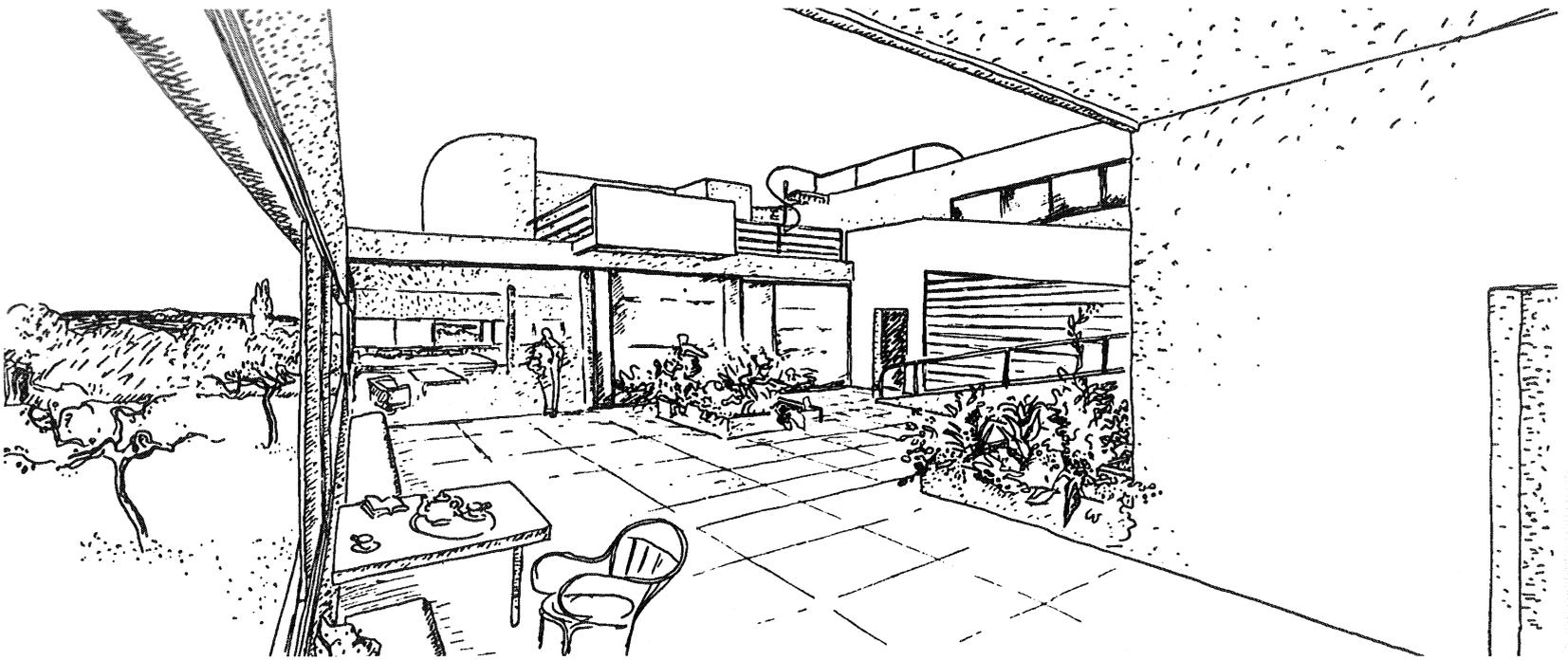
And here it is worthwhile to note that whereas space was not an issue in French architecture in the '20s, it certainly was in art, so much so that at the time the renowned art critic Carl Einstein defined the history of art as the summation of "all optical experiments, of invented spaces and of figurations." For him, the future of art lay in the manipulation of space. He believed that "in order to transform this space," it was first necessary "to eliminate rigid objects, conventional receptacles" and thus "throw into question the view itself." The Swiss artist and one-time Bauhaus master, Paul Klee, shared Einstein's convictions. "The object is surely dead," he wrote in his diary in the mid-'20s. "The sensation of the object is of first importance."<sup>9</sup> And something like these sentiments can be found in the theoretical writings of Le Corbusier and his partner in Purism, Amédée Ozenfant, as early as 1921. In "Purism," for example, they define their largely self-referential Purist painting "not as surface but as space."<sup>10</sup> Purist space was not of a traditional, perspectival sort. On the contrary, Purism strove to undermine this "old regime" and did so largely, it seems, by

"throwing into question the view itself." Space in Purist painting was made manifest through carefully configured ambiguity. Certain tactics—a "mariage des contours," a palette of advancing and receding colors, exaggerated frontality, parallel space construction, figure-ground reversals—conspired to create consciously contradictory readings, at once flat and spatially deep. Conventional perspective was employed—in prevalent diagonals, for instance, that seem to recede into space even as they relate directly to the two-dimensional plane of the canvas. However, it was used largely as a foil to underscore contradiction and thus to heighten the observer's physical sensation of the work of art. Oscillation undermined absolute objectivity. It questioned the authority of "the view." The observer felt space. Such ambiguity presents a both/and condition in which multiple images or readings—distinct and separate yet one and the same—reside in a single painting. Because only a single reading can prevail at any one time, in the instantaneous passage from one reading to the next, time is felt. Visual ambiguity induces what might be called, if only in hindsight, a "space-time" sensation. The aim of all this, according to Purist theory, was "the

release of aesthetic emotion." "L'oeuvre d'art," Ozenfant wrote in the mid-teens, "est une machine à émouvoir."<sup>11</sup>

Though "space" could hardly have been a conscious concern of the architect Le Corbusier in the '20s, it seems to have had "presence" in Purist painting. Convinced that painting "should lead to the objectification of the entire 'world,'"<sup>12</sup> Le Corbusier sought to aggrandize this art into environment. The search for a trigger to release aesthetic emotion originated in Purist painting, became the aim of architecture in the 1920s, and ultimately was elevated to the special function of space—the new *venustas* of modern architecture—in the 1940s. Questions again present themselves. How might the peculiar "contradictory space" of a three-dimensional image on a two-dimensional canvas be made manifest in the decidedly three-dimensional art of architecture? How to introduce as essence to the nonfictive medium of architecture the sensation, the resonance, found in the space of representation?

Perhaps in no other early Le Corbusier work is a sense of "new space" more palpable than in the Villa Savoye, the architect's first masterpiece. Certainly, writings on architecture



Du jardin supérieur on monte au toit: sketch by Le Corbusier

begin to note this only a decade after the villa's completion. Sigfried Giedion, for instance, in his 1941 *Space, Time and Architecture*, proclaimed Savoye "quite literally" a "construction in space-time."<sup>13</sup> And by the mid-1950s it was common for critics and historians to place great emphasis on "the manner in which space has been enclosed and related" in the villa.<sup>14</sup> Yet while it is assumed that Savoye was the summation of a decade of white villa building, none of these writings speculates as to the nature of Savoye's space and none attempts to explain why such space might more readily appear in Poissy than in Paris. For Le Corbusier, of course, at least at the time of the house's completion, space was decidedly *not* the essence of the Villa Savoye, and in introducing the Villa Savoye to his *Oeuvre complète* readers in 1929, he offered neither space nor any aesthetic rationale whatsoever for what at the time must certainly have seemed a curious, not to say absurd, residential proposition. For why construe a weekend house in the country ("in the middle of a meadow") as a cubic three-story contraption ("like an object") so obviously at odds with its situation? Why offer a highly contrived, machinelike assemblage, one that goes up instead of out, as an appropriate solution to such exceedingly natural, excessively accommodating and expansive circumstances?

Needless to say, when Le Corbusier describes his initial scheme for the not-yet-built Villa Savoye in the premier volume of the *Oeuvre complète*, he does not address these issues.<sup>15</sup> He tells us instead that the site is very open, has wonderful views, and "is magnificent, comprised of a great meadow with a hill surrounded by trees." He then directs our attention to aspects of his design related to these conditions. "The house has no front," he claims, but as it is "situated at the crest of the hill, it should open to the four horizons." And "to permit distant views of the horizon," he reasons, "the main living level, with its suspended garden, is raised on pilotis." He imagines the house as a retreat from the congestion

and urbanity of Parisian life. Arriving from the city, he says, the automobile will glide among the pilotis beneath this elevated domain. Garage, domestics' rooms, and entry are all at ground level. The entry is "on axis" as is the "very gentle ramp [that] ushers one effortlessly to the main living level." Though free to orient the frontless villa to his liking, Le Corbusier situates the "cube" to assure each room a view, but notes that "orientation of the sun is opposite that of the view." Only the suspended garden, and the interiors that open onto it, are permitted an abundance of direct sunlight. On the level above the garden, accessed again by ramp, one finds a seemingly redundant solarium, a kind of *toit jardin*. Defined by "curved forms that resist the strong winds and that offer a very rich architectural element" to the design, the solarium is necessary, Le Corbusier insists, "in order to crown the ensemble." It serves as forecourt to the elaborate boudoir and bedroom suite for Madame Savoye, a cubic appendage that in elevation detracts from the clarity of the scheme. In ending this short tour, Le Corbusier notes what seems obvious in his perspective drawing but what must have been a peculiarity at the time: the "main body of the house is defined by four similar walls, with overtly voided centers all around, and with a unique window system designed by L-C and P.J."<sup>16</sup> The accompanying two-point perspective of the southwest exterior corner of the villa emphasizes volume over plane. Ribbon windows render vertical walls as rectangular hoops hovering in space, skewered together by toothpick pilotis, affecting a look remotely similar to that of a box kite, or given the villa's cockpit "crown," like the Air Express that so excited Le Corbusier in *Vers une architecture*.

In none of this description does Le Corbusier mention space. Of the nine drawings provided, only a large perspective of the suspended terrace suggests spatial novelty. It coalesces the interior and exterior, allowing us to look from the terrace through the living room and through again to the ribbon window, the

head of which coincides with the horizon line in the landscape to the left. This landscape, too, forms part of the interior terrace, appearing almost as a framed picture, only minimally separated by the mullions of the sliding glass window. But the true catalyst to novel space comes from the construed "frame" on the right—a direct result of the manner in which Le Corbusier portrays architecture. Here he shows the wall and ceiling of a roofed exterior cove with the diagonal junction of these planes ambiguously configured. Like many similar frames found in Le Corbusier's Purist paintings—frames that would later be translated to three-dimensional sculpture—it can be read simultaneously as both receding into and folded out of the picture plane. Thus depiction permits space to modify itself at will. In this way, framing seems to encourage the *sensation* of space.

In contrast, Le Corbusier's verbal description of the villa is mundane, presenting his highly questionable *parti* as matter-of-fact resolution to—not provocateur of—issues of function, hygiene, and site apprehension. Yet each of his claims hints at qualities that serve to distinguish this design from those of his earlier villas, and it is these distinguishing characteristics that ultimately earn it entrance into the realm of the truly remarkable. "The house should have no front," he insists, thus emphasizing the nonwall quality of the four walls. Yet certainly frontality, if not facadism, was a mainstay of Corbusian design both before and after the design for the Villa Savoye. To eliminate a front is also to dissolve Le Corbusier's most persuasive but least noted formal device: the (almost) blank sidewall. For throughout the '20s, from the conceptual Citrohan to the representational Pavillon de l'Esprit Nouveau, from the Villa Meyer to the Maisons Cook and Guiette and to the Villa Stein and Maison Plainex, Le Corbusier conceived of a kind of bookend architecture: buildings with blinders, houses that opened mainly to the front and back. With the exception of Maison Citrohan (a rather faceless

theoretical villa designed with no specific site in mind and bearing some resemblance to certain grill-faced automobiles of the day), each had a carefully composed front facade and, ideally, each contained its own “outdoor room,” ancestor to the suspended garden. The Pavillon de l’Esprit Nouveau was paradigmatic in this respect. Built as a full-scale model of sorts, it quite intentionally *represented* a Le Corbusier ideal. It could serve either as suburban house, or, like a modular container, as a single cube in an “Immeubles-Villas” urban structure built of many such cubes arranged side-by-side and one atop another.<sup>17</sup> The latter possibility insists that the cube be opened only to front and back. Circulation through the pavilion is of little consequence. But in 1926, with the Villa Cook, this stackable container gave way to the independent townhouse. Responding to its tight urban setting, Le Corbusier opened both the underside and top of the cube and thus, by necessity, pilotis and roof garden enter the formula. Circulation is now vertical. One ascends from ground to sky. The toit jardin, no longer mere nicety, has become a transcendent experience. “The reception is at the top of the house,” Le Corbusier writes of Cook. “One exits directly onto the toit jardin where one prevails over the vast forest of the Bois de Boulogne; you are no longer in Paris; you are in the country.”<sup>18</sup> This movement from the city to the country, from the mundane to the metaphysical, from earth to heaven, from body to mind, is quite clearly a metaphor for life as Le Corbusier knew it.<sup>19</sup> The orchestrated experience, with its beginning, middle, and climactic end, signifies something larger than just *promenade architecturale*. But still, at the Villa Cook, the mundane obscures the metaphor. Ascension is through a tight and discontinuous vertical shaft. The movement seems simply logical, the result of confined urban conditions.

At Poissy, the opposite is true. Logic is undermined by the apparent inappropriateness of a three-story structure on an expansive, natural site, and by Le Corbusier’s emphasis on the importance of the on-axis ramp. Unlike in the original design, in which the ramp culminated at Madame Savoye’s elaborate penthouse suite, in the budget-wise final design it leads nowhere but to the sky. Its uselessness is its greatest strength. Promenade becomes not a means to an end, but an end in itself, a “poetic fact.” Accordingly, Le Corbusier’s description of the completed villa in volume 2 of the *Oeuvre complète*—a description written after he himself had walked the design many times—underscores the importance of the ethereal and somatic apprehension of architecture. It begins with our (anesthetized?) approach by car to the lower-level door of the house, and by our entry, as it were, from beneath the skirt of Villa Savoye. On arrival, Le Corbusier assures us that the sweeping circle of the glazed entry hall wall was determined not frivolously but functionally, its diameter corresponding to the turning radius of the family car. Le Corbusier then moves us directly to the main living level—

thus ignoring the ramp’s principal flaw, its discontinuity. He cites dryness and health as good reasons for his having “suspended” the “garden” above the ground. “But one continues the promenade,” he says. “From the elevated garden one climbs by ramp to the roof of the house where the solarium is located.” Then, in a more reflective mode, he tells us that “Arabian architecture gives us a valuable lesson. It apprehends ‘on the move,’ by foot; it is in walking, in displacing oneself, that one sees the order of architecture unfolding.” And this, he claims, “is the opposite of baroque architecture, conceived on paper from a fixed theoretical point. I prefer the lesson of Arabian architecture.” Architecture is to be apprehended, it seems, by both the body and the eye in motion. In concluding, Le Corbusier declares his creation to be a “true architectural promenade,” one that offers constantly varying views and achieves tremendous diversity despite the “absolute rigor” of its post-and-beam system, a system comprised, he says, of “equidistant pilotis which form an independent frame and result in a free plan.”<sup>20</sup>

But of course, a glance at that plan, particularly at the lower level, reveals anything but equidistant pilotis, for the “on-axis” ramp has required that the order be interrupted. And throughout the villa, interior wall placement seems not free but precisely determined by column and exterior “mullion” locations. In

Le Corbusier’s subscription to “factory aesthetic lite” did not result in convincingly authentic object architecture, though persistently it was sold as such. What was provoked, however, was an architecture of space; but it was not until much later that Le Corbusier came to recognize this. “I see—looking back after all these years,” he wrote in 1955 just a decade before his death, “that my entire intellectual activity has been directed towards the manifestation of space. I am a man of space, not only mentally but physically.”

addition, construction photographs suggest that frame, floors, and walls were hardly independent but were more or less cemented together to make of the building a single, solid unit.<sup>21</sup> So with “absolute rigor,” “independent frame,” and “free plan,” Le Corbusier describes not the real but the ideal. And this tendency extends to earlier assertions as well. The steeply inclined ramp, for instance, hardly “ushers one effortlessly.” In addition, the T-shaped north elevation—not hovering on pilotis like the other three elevations but extending to the ground—is clearly the “front” that Le Corbusier says the house does not have. Still, Le Corbusier makes evident what he *wants* this architecture to be: a kind of exhibition—understood by both foot and eye—of *l’ordonnance des formes*, forms at the very center of *Vers une architecture* theory, forms that “intensely affect our senses, provoking plastic emotions.”<sup>22</sup>

The carefully selected photographs that accompany Le Corbusier’s verbal description offer testimony to his convictions. And it is the verbal and visual “texts” *together* that elevate to canonical status the otherwise imperfect-

when-seen-as-real Villa Savoye. And here the notion of Savoye space—and its relationship to promenade architecturale—returns. For of the sixteen photographs of the villa featured in the second volume of the *Oeuvre complète*, the two most beguiling are certainly the one that portrays the beginning and the one that anticipates the end of the promenade experience. Captioned “*Arrivée des voitures sous les pilotis*,” the first records our initial encounter with the villa as we arrive via automobile. The image portrays not an object, but space. Its focal point is a rectilinear “void,” luminous and centered in the composition. Grass, gravel, and ceiling surfaces appear as flattened shapes. Pilotis are soft cylinders that frame the glowing rectangle even as they emanate from it. Photography transforms awkward beams to washes of gray—more the absence of light than the presence of out-of-place mass. The horizon bisects the picture. Dominant diagonals, implicit and explicit, radiate from its center void and engage the edges of the image. All conspire to support the illusion of apparently deep space, to depicting a kind of truncated pyramid receding into the picture plane. Yet abstraction and careful composition, together with the tendency of bright planes to advance, encourage an easy reversal of this view, and the truncated pyramid can be read alternatively as projecting out of the picture plane. Ultimately, oscillation between *receding*

*into* and *projecting out of* brings about the collapse of the image to a two-dimensional “X” running from corner to corner, and a third reading, one of absolute flatness, becomes apparent. Such ambiguity conveys a sense of contradictory space. It affects the reader empathetically. One feels space. “The object is dead.” The “sensation of the object” is now of primary importance. An off-strike of reality that when carefully construed records visual contradiction, photography corralled and transmitted this sensation of the object—what Le Corbusier had termed in *Vers une architecture* the “*résonance profonde*”—and of this sensation, new space was born.

The other image, “*Promenade architecturale*,” confirms this. Depicting the final moment of one’s ascent through the villa, it is remarkably similar in composition to “*sous les pilotis*.” Dominant diagonals radiate from a central white rectangle. Cylindrical shapes seem to levitate. A decidedly horizontal line bisects the composition. Complex surfaces are rendered as simple overlapping planes in space. And here too, the image strives to reverse itself, for despite the presumed use of a

wide-angle lens, its space is highly compressed.<sup>23</sup> Its background, poised as it is on the bisecting horizontal roof plane, leans into the foreground. The whites advance, and neither the ramp-wall nor the rail possess adequate gradation in gray scale to appear sufficiently “deep” to keep it at bay. Rather the ramp-wall is shown as a flat triangle that seems to run across the image instead of into it. The rail is abstracted to a series of radial lines comparable to the highlights and shadows found on the ramp surface. But if the background appears to be nosing its way forward, it is the ramp itself that encourages this. The ramp is inherently a visually ambiguous architectural entity. Its floor is both a vertical *and* horizontal plane. As an indicator of depth, it is highly deceptive, for one intuitively knows “floor” as horizontal plane, but to read it in representation as only horizontal upsets a delicate balance, confounding all visual clues of the composition. A false perspective ensues. The view itself is thrown into question. “Content” is abstracted, and if only momentarily, the image is about space. That it should also depict the climax of our ascent is not coincidental.

Recording contradiction, “promenade” and “sous les pilotis” are the first “sensations” of the special space of Savoye. Yet such ambiguously construed space was common to Le Corbusier. He had employed truncated pyramid configurations often and consistently to catalyze his Purist paintings, and the illustrative texts of his '20s publications feature many images similar in composition to “sous les pilotis” and “promenade.”<sup>24</sup> Indeed, so persistent is the motif in Le Corbusier’s representations—and in the work of renowned contemporaries, artists such as El Lissitzky, Paul Klee, and Jacques Villon—that one might consider it not just an important strategy but, in its objective manifestations, a kind of “type” that appears in many guises in both two- and three-dimensional form in the oeuvre of the architect.<sup>25</sup> The special significance of this type both to Le Corbusier’s built works and to his theory is made evident on the original 1923 cover of

*Vers une architecture*. Dominating that cover is a photograph of the promenade of the ocean liner *Aquitania*, a compelling one-point perspective cropped to create an oscillating truncated pyramid composition. Like “sous les pilotis,” it features an “X” parti of abstract surfaces, a luminous rectangle as focal point, and prominent diagonals formed by rails and the junction of wall planes with ceiling and floor. The “shadowed-grass triangle” on the far right side of “sous les pilotis” closely parallels the rail of the ocean liner, with the highlighted tri-

Destined to appear repeatedly in the work of Le Corbusier, this truncated pyramid composition and the space that it evoked achieved iconic status in a perspective montage that represented an interior design for the 1929 Salon d’Automne. In this montage, black-and-white photographs of the then-new furniture of Le Corbusier, Pierre Jeanneret, and Charlotte Perriand are placed in a drawn and colored perspective.

angle above it providing a “ribbon window” similar to that of the ship. So uncanny is the resemblance that here one is tempted to an Olympian leap to conclusion, albeit only in the interrogative. Could the *image* of the *Aquitania* promenade—not an object per se, but a *sensation* of an object—have inspired nearly identical architectural configurations in the work of Le Corbusier? Could it have initiated a kind of “truncated pyramid space,” a peculiar but very consciously construed configuration adopted as a standard type and destined to appear again and again in Le Corbusier’s buildings?

Certainly as an object, the *Aquitania* as promenade might have inspired such an architecture. “With plan in pocket,” Le Corbusier confessed in reference to the tiny house that he designed for his parents in 1925 beside Lac Léman, “one goes in search of a site that will prove agreeable to it.”<sup>26</sup> The living room of this 560-square-foot *maison miniscule*, Le Corbusier tells us, offered a forty-five-foot-long “perspective” that included a thirty-six-foot-long continuous ribbon window onto the lake. The perspective is the principal space of the house; it is a place. The ribbon window, opening out

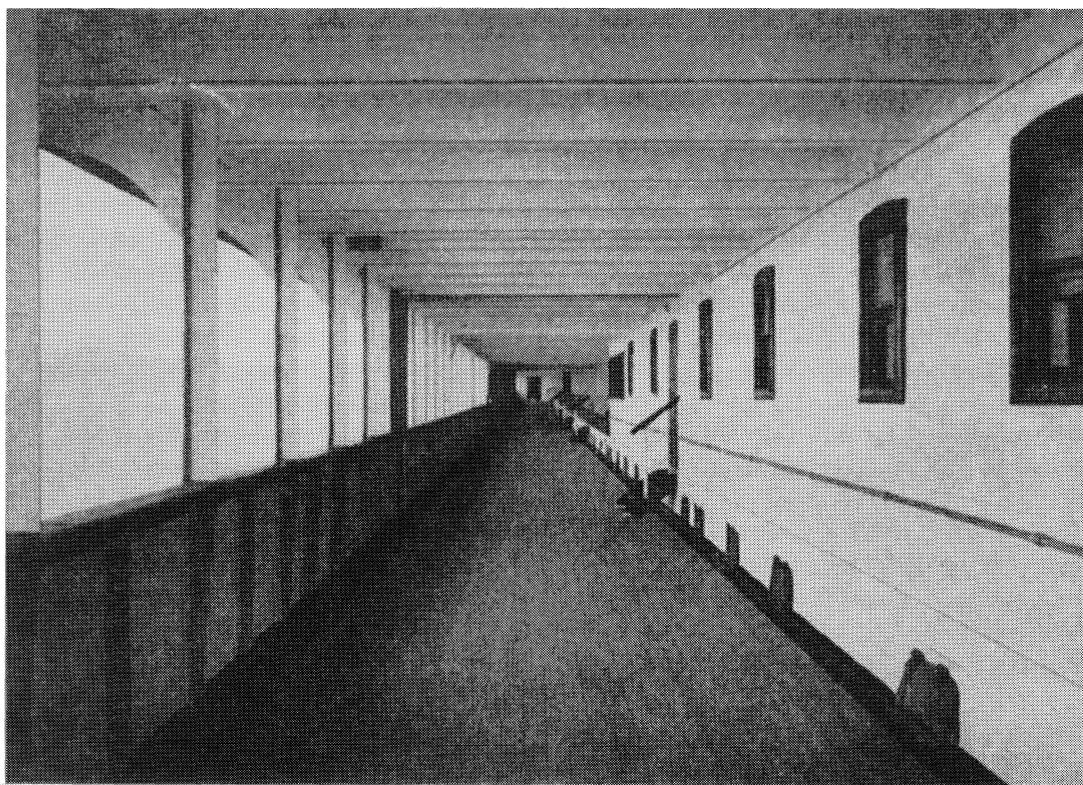
onto Lac Léman, parallels the continuous opening of the *Aquitania* promenade.

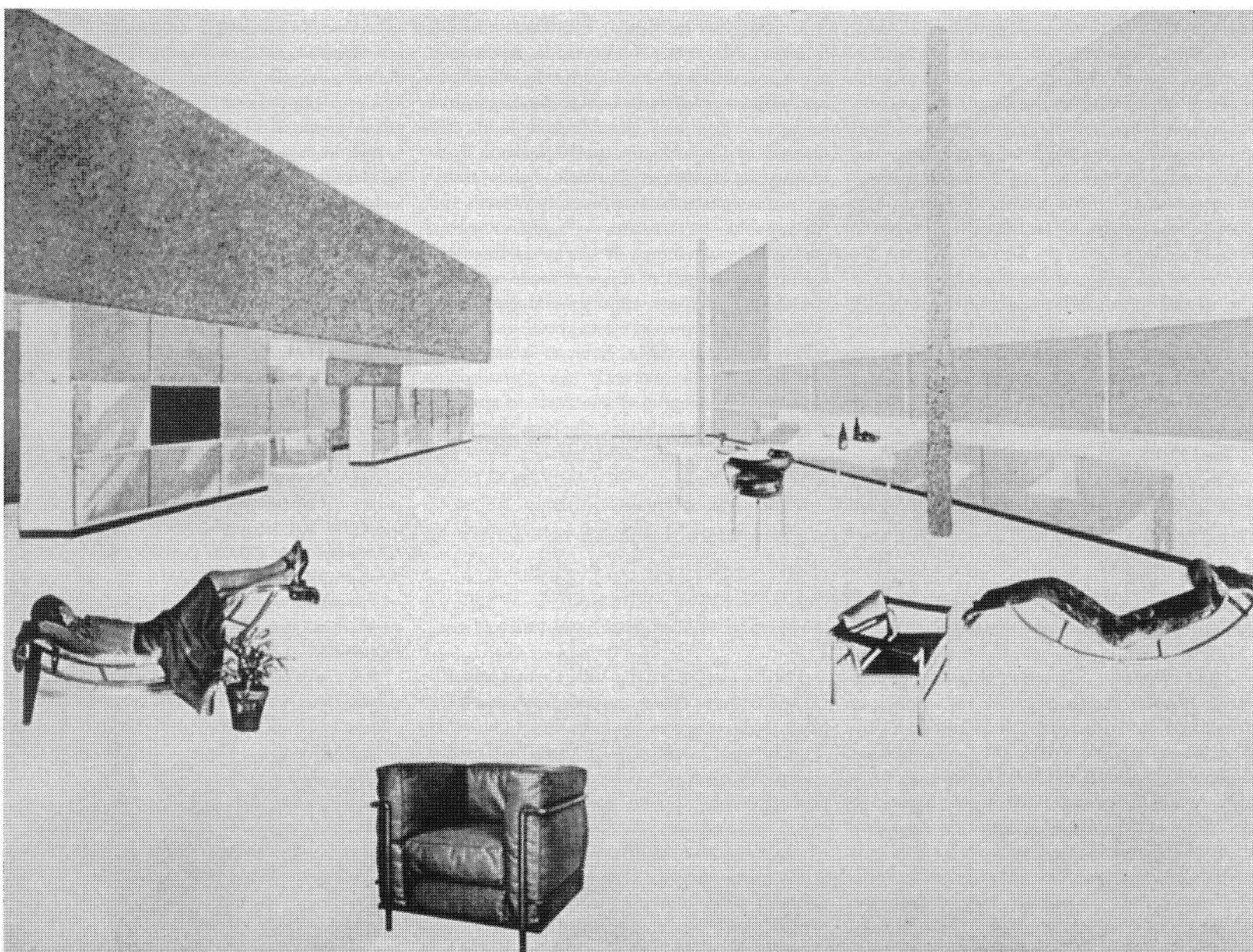
Destined to appear repeatedly in the work of Le Corbusier, this truncated pyramid composition and the space that it evoked achieved iconic status in a perspective montage that represented an interior design for the 1929 Salon d’Automne. In this montage, black-and-white photographs of the then-new furniture of Le Corbusier, Pierre Jeanneret, and Charlotte Perriand are placed in a drawn and colored perspective. The conjoining of “real” (photo-

graphic) with fictive (drawn) space brings an ethereal air and expansiveness to the depiction. Like the curious pods in paintings by Hieronymus Bosch, the cutout photographs of furniture resist the regime of the overall drawn perspective. They are not quite the right size, and each comes with its own perspectival space, space that contradicts that of the fabricated perspective. By challenging the regime of the perspective that contains them, by failing to conform to its dictates, they sensationalize—in the most tactile meaning of that word—space itself. They make evident and palpable that which would otherwise go unnoticed. It is through contrast, with the creation of a dialectic, that the reality of photography catalyzes the imaginary, in-your-head nature of the drawn-up space. The presence of a *grand confort* outside the confines of the construed perspective heightens this effect.

As polychromed for publication in *L’Architecture Vivante*, this blue and rose one-point perspective presents autonomous, “universal” space, distinctly modern and once again echoing in both form and content the space conveyed in the photograph of the *Aquitania* promenade.<sup>27</sup> Yet this image differs from the Salon installation itself. There, the superimposition of a Cartesian grid over the floor, the lowered ceiling, and the modular cabinetry gave measured order and definition to the space and integrally tied the advertised “equipment” to its environment. In contrast, in the colored image, the architectonics of measure and modulation have apparently evaporated in favor of a more nebulous, effervescent, and decidedly unreal “space.” Objects are not anchored to but seem to levitate in a more or less perspectival order established by the convergence of diagonal lines. Le Corbusier’s bluish-white coloring of both ceiling and rear wall assists in conveying an ethereal (not-the-object-but-the-sensation-of-the-object) atmosphere. Color, and a reluctance on the part of the photographed furniture to cooperate with the implied perspective, dissolve resolute structure. Still, the *Aquitania* promenade is present, and its continuous opening-to-the-sea aperture is here echoed on the left

The *Aquitania*, from the cover of the 1923 edition of *Vers une architecture*





From the Geneva Gazette, volume 100 (May of the Fondation Le Corbusier and the Artists Rights Society)

Maquette de l'ensemble, furniture presented at the Salon d'Automne, 1929

by the long metal cabinets that hover above the floor—a substitute *fenêtres en longueur* that Le Corbusier will rely on often (and evidenced, most elegantly, in the library of the Villa Church). On the right, in blue, Le Corbusier has painted *pan de verre* on the otherwise blank wall of this presumably windowless room. Abstraction is heightened and a sense of the scenographic evoked. The space of representation has all but usurped that of reality.

It is with this icon in mind—one as salient, I would suggest, as that of the Maison Dom-Ino—that one returns to Poissy, to the promenade architecturale, and to the illusory space of truncated pyramid configuration recorded in the photographs of its beginning and its end. And now one notices that not only does the promenade start and stop with such space, but also that it is comprised almost entirely of back-to-back pyramids construed at each level of the ramp. Even the ramp's discontinuity—interior until it arrives at the piano nobile, exterior and accessed only from the suspended garden thereafter—contributes to the elated sense of ascent that the configured space instills. For at exactly this interruption, Le Corbusier has situated the villa's principal public area, “un vaste séjour,” the dining-living room. The six-by-fourteen-meter room serves as a protracted landing of sorts, connecting

the end of the interior ramp with the suspended garden that leads to the beginning of the exterior ramp. Le Corbusier's extraordinary crafting of ambiguity allows this area to be, at once, both a room and an essential part of the promenade. And here too, the image of the *Aquitania* is recalled. The room's proportions approach that of a long corridor, and its ribbon windows mimic those of a ship at sea, permitting the horizon to be ever present.

From the suspended garden, one continues the promenade, ultimately to arrive at yet another curious convergence of the real and the representational. For when the budget removed to the piano nobile Madame Savoye's boudoir, nothing remained at the end of the ramp to arrest one's view but the *idea* of the view itself. And from the solarium wall that terminates the promenade even as it creates the villa's “crown,” Le Corbusier removes a rectangle. A picture appears. The “view itself” is made manifest. Yet as one approaches the aperture, this enigmatic image vanishes. The picture of the world beyond is gone, replaced by the reality of all that lies outside the Villa Savoye. Only the idea of the view remains. The view belongs not to the perceptual but to the conceptual realm, though momentarily—as in all the best Le Corbusier moments—the two are one.

Time and again, Le Corbusier would construe back-to-back “truncated pyramids” as spatial sequence. For what is the Mundaneum's Musée Mondiale if not a highly ordered mounding of head-to-tail Savoye ramps? And what is the La Tourette labyrinth if not the same end-to-end schemata—this time terminating in a kidney-walled crypt, an enigmatic false perspective that translates into architecture the resonance found in the space of representation as it pushes to ultimate conclusion the psychological “effect” of pyramid corridor construction?<sup>28</sup>

It was not space, of course, but an image of absoluteness that made the Villa Savoye a canonical work of architecture. Self-contained, cubic, relentlessly ribbon-windowed, with a foyer wall dictated by a turning radius and levitating planes tied to the ground by pure white cylinders, “Les Heures Claires” was a scantily clad Maison Dom-Ino that illustrated in diagrammatic fashion Le Corbusier's famous five points. It was a memorable summation of a decade of *villas blanches*, an icon that rivaled in economy Mies's concrete office project, an eminently repeatable module stamped across cul-de-sacs to make up an Argentine suburb.<sup>29</sup> But all of this neglects its categorically “relative” interior comprised largely of contingencies that allow the *boîte en l'air* parti to persist

free and clear of the encumbrances of accommodation. Awkward cubic rooms, each with its often tedious and anonymous ribbon window complemented by the requisite concrete ledge, are connected by long, tight corridors, and everywhere the diagonal of the ramp imposes itself. Yet it was Le Corbusier's genius to integrate all with a palette of pastels, the occasional skylight, or, in the otherwise black hole of its interiority, the famed S-shaped "*lit de repos*," that brings to the Madame's boudoir the splendors of a Pompeian atrium. Walls comprised of heavy masonry and concrete were smoothed and cloaked in a whiteness that defies gravity. The ground-level garage was camouflaged in a dark green that allows it to recede into "landscape" and permits the *boîte* its illusion of levitation, while oddly out-

tive retreat nor on similar manifestations that followed. Marseilles, for instance, is absurdly squat and unshaven on all sides. Its pilotis are not white cylinders, but muscular organ-like issuances. And with the Maisons Jaoul, the *cabanon* at Cap-Martin, perhaps even Ronchamp, an absorbent, barbaric, heavy architecture is construed as eminently present and inescapable—an artifact not a phenomenon, an object not an image. It was by contrast that texture and weight of this sort made apparent the essence of space while simultaneously addressing the human need to dwell in the objective and unmovable. Even as it employed "sensation," this inherently heavy materiality attempted to keep an architecture of space in the realm of the authentic, the real, the palpable, the tactile.

For Le Corbusier, the Villa Savoye, canonical and without doubt a masterpiece, was but a point in the progress toward a more inherently "conservative" architecture, one that valued space as its essence but that sought its manifestation in dialogue with immutable reality. Yet in an age obsessed with image, the "sensation of the object" prevails.

of-place windows and doors that service the *rez-de-chaussée* rooms of maid and chauffeur are edited out of images. All of this is to say that, when handled masterfully, certain contingencies make of the Villa Savoye an amiable, even charming habitat, yet are of a decidedly different nature than the apparent order that pervades Le Corbusier's visual and verbal presentation. The exterior is absolute, the interior relative and contingent. Both, no doubt, delight the observer; though if, in theory, Le Corbusier believed that "*Le plan est le générateur*" and took care to "*procure la satisfaction de l'esprit*" through an "*obligation de l'ordre*" and an "*assurance contre l'arbitraire*," in practice, at least with the Villa Savoye, any obligation to order seems to have been satisfied more from the outside in than from the inside out.

If what has been described here conforms comfortably with Le Corbusier's well-known definition of architecture as "*le jeu savant, correct et magnifique des volumes assemblés sous la lumière*,"<sup>30</sup> and if photography—"the manipulation of light" in Moholy-Nagy's words—so clearly captured this condition and offered it back to its author as a "spatial palette," it should not go unnoted that architecture of a purely phenomenal sort, so effortlessly promoted by photography and the printed page, once it was achieved at Poissy, seemed insufficient to persist as such in the "patient search" of Le Corbusier. For as soon as the essence of this architecture became evident, Le Corbusier began to explore its opposite. Thus with the tiny Maison de Weekend in La-Celle-St. Cloud, Le Corbusier set aside elevated and ethereal absolutism, the anonymous and the universal, the Cartesian and the phenomenal in favor of the natural, the authentic, the earthen, the rough, the rotund. Ascension was countered by a sense of shelter and burrowing in, and the five-point formula fulfilled at Poissy was imposed neither on this primi-

For Le Corbusier, the Villa Savoye, canonical and without doubt a masterpiece, was but a point in the progress toward a more inherently "conservative" architecture, one that valued space as its essence but that sought its manifestation in dialogue with immutable reality. Yet in an age obsessed with image, the "sensation of the object" prevails. It should therefore come as no surprise that at Poissy today, as elsewhere, the phenomenal in the form of representation persists in embalmed or resurrected bodies, though hardly in a manner agreeable to modern movement theory.

#### Notes

1. Such proposed rooflines were later built in straight lines for practical reasons. See H. Allen Brooks, "Le Corbusier's Formative Years at La Chaux-de-Fonds," in *Le Corbusier*, H. Allen Brooks, ed. (Princeton, New Jersey: Princeton University Press, 1987), 29.
2. Such factories are pictured in Le Corbusier's 1920 *L'Esprit Nouveau* article, "Trois Rappels, La Surface," recycled as chapter 2, part 2 in *Le Corbusier, Vers une architecture* (Paris: Edition Crès et Cie, 1923).
3. The Deutscher Werkbund was founded in 1907 on the idea of such an alliance, but fine art, architecture, and industry seem to reach a point of tangency around 1913, the year in which Marcel Duchamp selected and signed his first readymade and a young Walter Gropius sought to elevate his Fagus factory to the realm of architecture in his "Die Entwicklung moderner Industriebaukunst," *Jahrbuch des Deutschen Werkbundes*, Jena, 1913, 17–22. It is in this article that Gropius presents the now renowned photographs of American silos and warehouses. Similar images would find their way into *Vers une architecture*.
4. Slick and ethereal when dressed in white stucco, the new architecture appeared to many to be frivolous and urbane, particularly when slipped into a uniformly gray, eminently heavy Paris. And when grouped in colonies, as at Stuttgart or Prague or Vienna, these white and cream-colored boxes suggested themselves to others as a somewhat unreal and exotic amusement, the *Weißenhofsiedlung* being pejoratively compared by locals to an Arabian village. Pierre Chareau's Maison de Verre, safe

and distanced in its courtyard, content with elevations and in little need of a facade, was the one new Parisian house that might have succeeded in avoiding charges of frivolity. Its structural members, including glass block, dutifully exposed themselves for all to examine. A new space resulted from this way of building. Le Corbusier greatly admired this house and adopted its materials as "facade" for his concrete Salvation Army building and his Porte Molitor apartment, and more intrinsically, for the Maison Clarté. His Maisons Jaoul are perhaps a domestic, Parisian response to the Maison de Verre and to the "problem" it resolved. Curiously, they seem close kin to the Pessac houses as they appear in construction photographs before being dressed in stucco. See, for instance, FLC Photo L2 (6) 1–4, showing three units under construction, veiled in scaffolding of rough lumber.

However, Le Corbusier's '20s villas, in general, rejected both attachment to site and a sense of dwelling, and neglected visual and acoustical privacy in favor of continuity, openness, and "lightness." On this rejection and neglect, see Philippe Boudon, *Lived-in Architecture: Le Corbusier's Pessac Revisited*, Gerland Onn, trans. (Cambridge: MIT Press, 1972); on its late manifestation, see François Barre's interview with Marie Jaoul in "La maison Jaoul," *L'Architecture d'aujourd'hui*, September 1979, 85–86.

It is interesting to note that Le Corbusier often paraded acoustics as a selling point for his architecture, as with the League of Nations project, or with the Pavillon Suisse. Such campaigning—in the name of science, the new means, and materials indicative "of our age"—was also undertaken for other technically weak aspects of his architecture: flat roofs, unprotected glazed walls, air conditioning, etc. It might be argued that each of these problem areas—sites for inventive engineering and thus for "progressive" building—was in fact brought on by a conception of architecture as industrial container. Change the paradigm, alleviate the problem? But to do so would be to relinquish "new space" and the iconic value of novelty itself.

5. Le Corbusier, *Modulor 2 (Let the User Speak Next)*, Anna Bostock and Peter de Francia, trans. (London: Faber and Faber, 1958), 27.
6. Le Corbusier, "L'espace indicible," *L'Architecture d'aujourd'hui*, special edition, January 1946, 9–10. Republished in Le Corbusier, *Modulor 2*; published in English in Le Corbusier, *New World of Space* (New York: Reynal and Hitchcock, 1948). Quotations here taken from Joan Ockman, ed., *Architecture Culture 1943–1968: A Documentary Anthology* (New York: Columbia Books of Architecture/Rizzoli, 1993), 66.
7. In Germany and Holland, philosophers, theologians, artists, and architects had already begun to consider space a distinguishing quality unique to this century. See, for example, the philosophic writings of Schmarsow, Endell, Sörgell, and Lipps, and the theological inquiry of Tillich. An excellent short history of space as related to architecture is found in Anthony Vidler's "Space, Time and Movement," in Russell Ferguson, ed., *At the End of the Century: One Hundred Years of Architecture* (Los Angeles: Museum of Contemporary Art; New York: Harry N. Abrams, 1998), 100–125.
8. Carl Einstein, "Aphorismes Méthodiques," *Documents*, 1929, 32.
9. *The Diaries of Paul Klee*, Felix Klee, ed. (Los Angeles: University of California Press, 1964), 670, as quoted in Gillian Naylor, *The Bauhaus Reassessed* (New York: E.P. Dutton, 1985), 90. Naylor traces these preoccupations with "sensation" and "making visible" to the Munich lectures (1894–1913) of Theodor Lipps and also his book

on perception, *The Aesthetics of Space and Geometrical Optical Illusions* (Leipzig: J.A. Barth, 1897), and the two-volume *Aesthetics: the Psychology of Beauty and Art* (Hamburg and Leipzig: Voss, 1903 and 1906).

10. Charles-Edouard Jeanneret and Amédée Ozenfant, "Purism," in Robert L. Herbert, *Modern Artists on Art* (New York: Prentice Hall Press, 1964), 58–73; "Le Purisme" initially appeared in *L'Esprit Nouveau* 4, January 1921, 369–386.

11. As recounted in Amédée Ozenfant, *Memoires, 1886–1962* (Paris: Seghers, 1968), 109. This definition was later applied to architecture in Le Corbusier-Saugnier, "Architecture: Pure Creation de l'esprit," *L'Esprit Nouveau* 16, 1922, 1903–1918. There, a caption to a photograph of a detail of the Parthenon reads: "Voici la machine à émouvoir. . ." This article later appeared as a chapter in *Vers une architecture* (Paris: Arthaud, 1977), 173.

12. Jeanneret and Ozenfant, 369–386.

13. Sigfried Giedion, *Space, Time and Architecture* (Cambridge: Harvard University Press, 1941), 416. The notions of "new space" put forth in this book are often confused and contradictory, as pointed out most intelligently by Peter Collins, *Changing Ideals in Modern Architecture* (London: Faber and Faber, 1965), 289–291. Collins's review of the "concept of space" in architecture (285–293), though written in the mid-'60s, remains credible and thorough. However, Collins's conclusions regarding "The Influence of the Allied Arts" on architecture (271–289) seem categorically incorrect when he claims that "there seems little reason to believe that the contribution of painting and sculpture in the 1920s was anything more than a useful means of rejecting all vestiges of Revivalism" and notes that "painting and sculpture may well prove more of a hindrance to architectural creativity than an aid" (284).

14. George Nelson, *Problems of Design* (New York: Whitney Publications, 1957), 104–109. Nelson's extensive 1957 "re-evaluation" of the Villa Savoye is extremely insightful. It insists on considering the villa as a weekend retreat, compares its underlying premises to those of similar American vacation houses, and consistently exhibits the unique perspective of the author, for example, in his offhand remark: "the main 'stair' is a ramp." Nelson upholds the Villa Savoye as a paradigm for contemporary building, indeed for contemporary life, while carefully scrutinizing its peculiar aesthetic and underlying assumptions. Still, it is revealing to note that Nelson—like so many who had written about the villa at that time—had apparently never visited the house; for he notes in mid-critique that "some of the curved walls on the third floor set off areas for sun bathing, and behind the largest of these walls we finally locate the master bedroom, placed in its own penthouse, with a fireplace in the boudoir, a pair of huge dressing rooms and a bath." Obviously, Nelson here describes the first published scheme—one that was never built. He has formed his unquestionably intelligent opinion based entirely on a mixture of words and images provided by Le Corbusier in the first two volumes of the *Oeuvre complète*. Interestingly, he selects both "Sous le pilotis" and "Promenade" as photographs to illustrate his article.

15. Le Corbusier and Pierre Jeanneret, *Oeuvre complète*, volume 1, Willy Boesiger, ed. (volume 3, Max Bill, ed.), 8 volumes, ninth edition (Zürich: Les Éditions d'Architecture Artemis, 1991). This volume covers the years 1930–1929, and was originally published in 1929, before construction began on the Villa Savoye.

16. All quotations in this paragraph are my translation of Le Corbusier and Pierre Jeanneret, *Oeuvre complète*,

volume 1, 186–187.

17. An advertisement for "L'Immeuble Villas' en Villas de banlieue" found on page 220 of Le Corbusier's *Almanach d'architecture moderne* offers the Pavillon design as a kind of prefabricated suburban dwelling. It shows nearly blank side walls punctuated by the occasional door, a kind of "canopy" added to the rear facade, and the standard Le Corbusier "stair and bridge" clip-on that here leads to the contained terrace room. This stair and bridge motif appears most famously on the garden facade of the Villa Stein-de Monzie at Garches, but oddly enough it appears as well in the original scheme for the Villa Savoye, where it allowed one to move directly from the suspended garden to the ground. As such it gave primacy to a certain "side" of the Villa Savoye, thus eroding the sense of a facade-less building-in-the-round. It was removed from the final design, of course, but arguably it might have inspired the idea of a ramp-bifurcated building, such as those that Le Corbusier would later realize with the Mill Owner's Building in India and the Carpenter Center at Harvard, though more likely it was Melnikov's Soviet Pavilion at the 1925 Paris Exposition des Arts Décoratifs, with its immensely bold diagonal ramp-stair motif, that initiated this notion. In the Pavillon de l'Esprit Nouveau, one of the side walls served as a billboard, carrying a colossal "E" and "N."

18. *Oeuvre complète*, volume 1, 130.

19. Anyone who has spent time in Le Corbusier's native La Chaux-de-Fonds will recognize the ascent as parallel to the upward climb from the town's commercial main streets, located in a valley, through layers of at first dense housing and then occasional single-family houses, then through the wooded hillside and ultimately to the breathtaking meadows high above all—a wondrous world. Regarding movement from city to country, a geographical parallel might also be found. Toward the end of his life, Le Corbusier spent more and more time "exiled" from the suffocating urban conditions of Paris at his tiny and rustic Cap-Martin *cabanon* at the seaside near Roquebrune. It was here that he died while swimming in the Mediterranean. And if one ascends the steep hillside of Roquebrune, it is here—beneath the clouds and overlooking the sea, in the town's magnificent cemetery, its "toit jardin"—that one finds his remains, beside those of his wife, in accordance with his wishes.

20. All quotations in this paragraph are taken from Le Corbusier and Pierre Jeanneret, *Oeuvre complète*, volume 2, 1929–1934, 24.

21. See, for instance, *L'Architecture Vivante*, volume 4, plates 2 and 4.

22. Le Corbusier, *Vers une architecture*, 3. My translation.

23. Most, if not all, of the photographs of the Villa Savoye reproduced in the *Oeuvre complète* were taken by Marius Gravot. Gravot's stamp, as it appears on the back of the occasional "original" print in the Fondation Le Corbusier, reads: "M. Gravot & Co./PHOTOGRAPHIE ARTISTIQUE & INDUSTRIELLE/159, Boulevard St. Germain, PARIS (VI)." It is often difficult to determine with certainty the photographers of Le Corbusier's work from this period, since as a rule he did not credit the photographer in the articles and books that he wrote. Other journals, *L'Architecte* for example, did carry bylines, and one must rely on these as well as on archival research to ascertain authorship. The latter is not always fruitful as very few of the prints that the Fondation Le Corbusier holds in its collection carry the stamp of the photographer and one is not permitted access to the glass plates from which the original prints were made. Confounding the search is French law, which assigns credit for the photograph to the owner of the rights of repro-

duction, who is not necessarily the author of the photograph (but who may well be a photographer who has purchased the work of another photographer). Le Corbusier was only partially responsible for the photographic images of his work. Pierre Jeanneret was, before his departure in 1940, the office photographer. When a building neared completion, Jeanneret would photograph it with his twin-lens Rolleiflex. Contact prints would then be submitted to Le Corbusier. Le Corbusier would make selections from, and edit, these images, and then use them to indicate his preferred perspectives to professional photographers (seldom hired directly by Le Corbusier but typically sent by journals or press agencies) when they arrived to photograph the newly finished building. The least unadulterated versions of these professional photographs are often found in a loose-leaf, portfolio format in *L'Architecture Vivante*, which published special editions of Le Corbusier's work. Le Corbusier himself chose, cropped, and placed on the printed page the illustrative text for most of his early books, including the *Oeuvre complète*. By comparing "original" photographs with those "ordered" by Le Corbusier (he sometimes used "regulating lines" to determine final compositions), it is apparent that the "truncated pyramid composition" is applied to the photographs by Le Corbusier—available but not readily evident in the original, unworked image. This is the case as well for the images selected from catalogues and other sources, images not of Le Corbusier's architecture but of machines, the Parthenon, ocean liners, etc. For a detailed elaboration on this topic, see "Le Corbusier and Architectural Photography," in my unpublished dissertation, *Le Corbusier's Seeing Things: Ambiguity and Illusion in the Representation of Modern Architecture* (Philadelphia: University of Pennsylvania, 1996), 49–121.

24. Perhaps the best known of these is the photograph of the interior of the Ozenfant Studio. For a more thorough survey of Le Corbusier's use of truncated pyramid configurations, see Daniel Naegele, "Photographic Illusionism and the 'New World of Space'" in *Le Corbusier: Painter and Architect* (Denmark: Arkitekturtidsskrift B, 1995), 83–117.

25. See, for instance, Paul Klee, *The Thinking Eye*, Jurg Spiller, ed. (New York: G. Wittenborn, 1961), in which he verbally and graphically analyzes "truncated pyramid space" in terms of perspective, horizontals, etc. Perhaps the most concise visual statement on this is Jacques Villon's painting of 1932, *Abstraction*.

26. *Oeuvre complète*, volume 1, 74.

27. For the colored version of this image, see *L'Architecture Vivante*, third series, spring 1930, plate 9. A black-and-white version is featured in the *Oeuvre complète*, volume 2, 43.

28. The early, pre-brutalized scheme for this monastery—as drafted by Iannis Xenakis and featuring both taut skin and an external diagonal ramp that moved from the entry level to the upper level—is remarkably reminiscent of the Villa Savoye, hollowed and enlarged. See Brooks, *Le Corbusier*, 149.

29. For a sketch of the villa as a standard cell in suburban Argentina and for a very thorough and insightful account of the making of the Villa Savoye, see Tim Benton, "Villa Savoye and the Architects' Practice," in Brooks, *Le Corbusier*, 83–105.

30. Le Corbusier-Saugnier, "Trois Rappel à MM. LES ARCHITECTES," *L'Esprit Nouveau* 1, October 1920, 92.

*Daniel Naegele is an architect and assistant professor of architecture at Iowa State University.*